WAGO Interface Electronics

Edition 2025/1

WAGO Full Line Catalogs

WAGO Installation Connectors

- Splicing Connectors with Levers
- Inline Splicing Connectors with Levers
- Lighting Connectors
- PUSH WIRE® Splicing Connectors
- PUSH WIRE® Inline Splicing Connectors
- Luminaire Disconnect Connectors
- Gelboxes for Splicing Connectors
- Junction Box
- Cable Repair Set
- Splicing Connector Sets
- Accessories and Tools

WAGO TOPJOB® S Rail-Mount Terminal Block Systems

- Rail-Mount Terminal Blocks TOPJOB® S
- Rail-Mount Terminal Blocks with a Pluggable Connector X-COM®-SYSTEM
- Installation Rail-Mount Terminal Blocks TOPJOB® S
- Miniature Rail-Mount Terminal Blocks TOPJOB® S
- High-Current Rail-Mount Terminal Blocks
- Accessories and Tools

WAGO Rail-Mount Terminal Blocks Classic

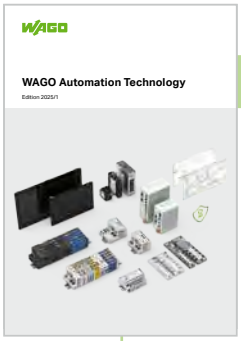
- Rail-Mount Terminal Blocks Classic
- Rail-Mount Terminal Blocks with a Pluggable Connector X-COM®-SYSTEM
- Patchboard Systems
- Busbar Terminal Blocks
- Rail-Mount Terminal Blocks Mini
- Modular Terminal Blocks and WAGO Terminal Strips
- Chassis-Mount Terminal Strips
- Field-Wiring Terminal Blocks

WAGO PCB Terminal Blocks an Connectors

- PCB Terminal Blocks (THT; THR; SMD)
- *MULTI CONNECTION SYSTEM (MCS)*
- *picoMAX®; picoMAX® eCom*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Strips
- Special Connectors
- Modulare Empty Housing
- Accessories and Tools

WAGO Pluggable Connection System *WINSTA®*

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes
- Accessories and Tools



WAGO Automation Technology

- Solutions & Software
- Operating & Monitoring
- Controllers, Edge Devices
- Modular I/O-SYSTEM IP20, I/O-SYSTEM IP67
- Industrial Switches
- Radio Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors

WAGO Interface Electronics

- Coupler Relays
- Solid-Stae Relays
- Signal Conditioners and Isolation Amplifiers
- Energy Measurement Technology
- System Wiring
- Component Modules
- Empty Housing
- Protective Devices and Protective Electronics
- Accessories and Tools

WAGO Power Supply Systems

- Power Supplies; 1-Phase
- Power Supplies; 3-Phase
- Special Supplies
- Circuit Protection
- DC/DC Converters
- UPS-Chargerand Controllers and Capacitive Buffer Modules
- Redundancy Modules
- Energy Measurement Technology
- Potential Distribution
- Accessories and Tools

WAGO Marking

- Thermal Transfer Smart Printer
- Digital Engineering – Smart Data
- Products for the Smart Printer
- Printed Products
- Plain Products
- Marker Carries

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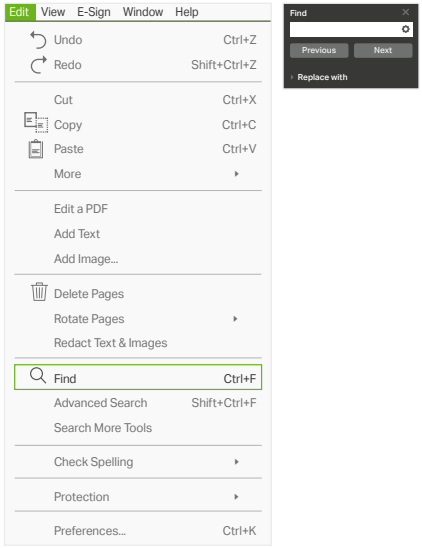

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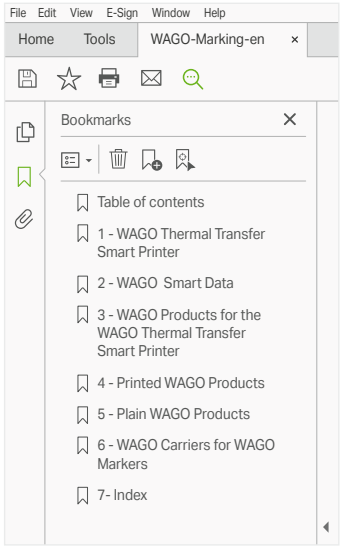

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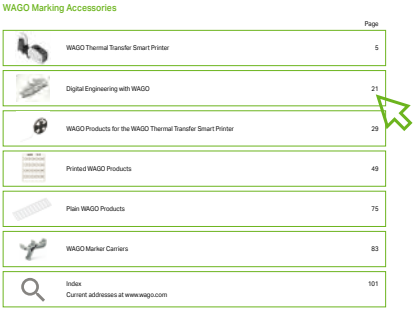

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Links

To help you access additional information easily, this catalog includes links to various websites. These links may provide further product details, installation notes or quick access to important documents such as data sheets.

One example is our **item numbers**, which contain links to the corresponding product detail pages on our website. Simply click an item number to open the relevant product detail page.

You can identify links in this catalog by the pre-sence of a URL in the link text (e.g., www.wago.com). In most cases, links are also underlined for easy recognition.

WAGO Interface Electronics

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The Right Interface

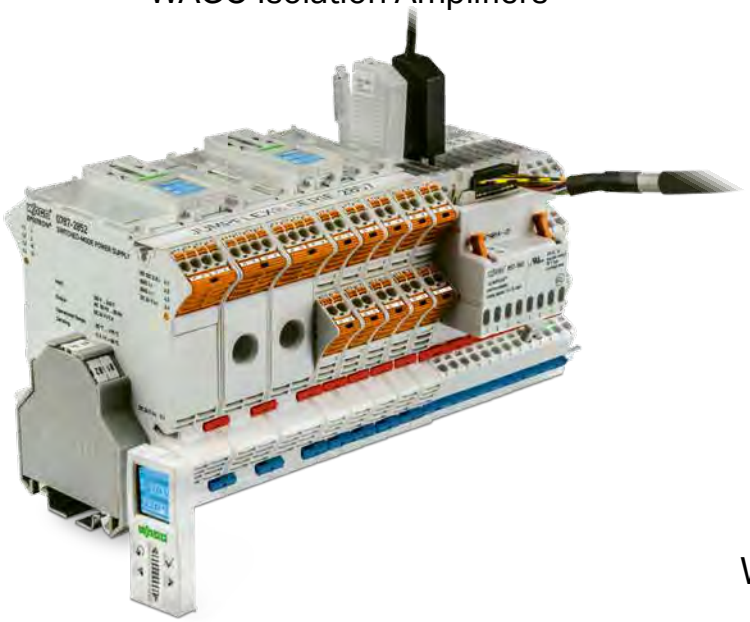
WAGO Coupler Relays and WAGO Solid-State Relays

WAGO Protective Devices and Protective Electronics

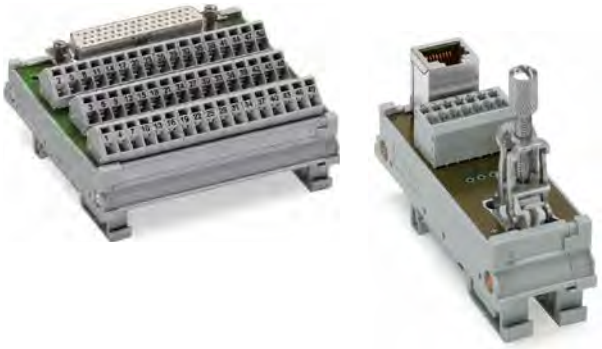
WAGO Power Supply Systems

for Every Application

WAGO Signal Conditioners and WAGO Isolation Amplifiers



WAGO System Wiring



WAGO Energy Measurement Technology

WAGO Coupler Relays

WAGO Coupler Relays

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WAGO Coupler Relays
Selection Guide

1

Nominal input voltage	Limiting continuous current	Changeover contact	Make contact	Break contact	Contact material	Specialty Functions	For railway applications	Standards/specifications							Item no.
								EN 50121-3-2	EN 61373	EN 61810-3	DNV	UL 508	ATEX	IECEx	
5 VDC	5 A	1			$AgSnO_2$				■		■	■			859-302
5 VDC	5 A	1			AgNi + Au	Gold contacts			■		■	■			859-312
12 VDC	5 A	4			AgCe	With manual operation			■			■			858-303
12 VDC	5 A	1			$AgSnO_2$				■		■	■			859-303
12 VDC	6 A	1			$AgSnO_2$				■			■	■	■	857-303
12 VDC	8 A	2			AgNi 90/10				■			■			788-311
12 VDC	16 A	1			$AgSnO_2$	For lamp loads			■			■			788-353
12 VDC	16 A	1			AgNi 90/10				■			■			788-303
24 VDC	0.3 A	2			AgNi + Au	Force-guided contacts; Gold contacts				■		■			788-906
24 VDC	5 A	4			AgCe	With manual operation			■		■	■			858-304
24 VDC	5 A	4			AgCe + Au	With manual operation; Gold contacts			■		■	■			858-314
24 VDC	5 A	4			AgCe	With manual operation	■		■			■			858-354
24 VDC	5 A	4			AgCe + Au	With manual operation; Gold contacts	■		■			■			858-355
24 VDC	5 A	1			$AgSnO_2$		■		■		■	■			859-390
24 VDC	5 A	1			AgNi + Au	Gold contacts	■		■		■	■			859-392
24 VDC	5 A	1			$AgSnO_2$		■	■	■		■				859-398
24 VDC	5 A	1			$AgSnO_2$				■		■	■			859-304
24 VDC	5 A	1			AgNi + Au	Gold contacts			■		■	■			859-314
24 VDC	5 A		4		AgNi		■	■	■						2042-3024
24 VDC	5 A		3	1	AgNi		■	■	■						2042-3074
24 VDC	5 A		2	2	AgNi		■	■	■						2042-3084
24 VDC	5 A	2			AgNi 10 + Au	Force-guided contacts; Gold contacts				■					288-437
24 VDC	5 A		1		AgNi 0.15										288-364
24 VDC	5 A			1	AgNi 0.15										288-368
24 VDC	5 A		1		$AgSnO_2$										286-364
24 VDC	5 A			1	AgNi										286-368
24 VDC	6 A	1			$AgSnO_2$				■		■	■	■	■	857-304
24 VDC	6 A	1			AgNi + Au	Gold contacts			■		■	■	■	■	857-314
24 VDC	6 A	2			AgNi	Force-guided contacts			■	■		■			788-384
24 VDC	6 A	4			AgNi 90/10	With manual operation			■			■			858-390
24 VDC	6 A		1		$AgSnO_2$		■	■	■						2042-3004
24 VDC	6 A			1	$AgSnO_2$		■	■	■						2042-3054
24 VDC	6 A	1			AgNi 90/10	Bistable relay									288-380
24 VDC	6 A	1			AgNi 90/10										288-304
24 VDC	6 A	2			AgNi 0.15										288-312
24 VDC	6 A	1			AgNi 90/10	Bistable relay									286-380
24 VDC	6 A		1	1	$AgSnO_2$										286-320
24 VDC	6 A		2		$AgSnO_2$										286-328
24 VDC (SELV)	6 A	1			$AgSnO_2$	Multifunctional/multi-time; Time function	■	■	■			■			857-604
24 VDC (SELV)	6 A	1			$AgSnO_2$	Multifunctional/multi-time; Time function	■	■	■			■			857-640
24 VDC (SELV)	6 A	1			$AgSnO_2$	Multifunctional/multi-time; Time function	■	■	■			■			857-642
24 VDC	7 A	1			AgNi 0.15										286-304
24 VDC	7 A	2			AgNi 0.15										286-312
24 VDC	8 A	2			AgNi	With manual operation			■			■			788-346
24 VDC	8 A	2			AgNi	With manual operation	■		■						788-390
24 VDC	8 A	2			AgNi 90/10				■			■			788-312
24 VDC	8 A	2			AgNi + Au	Gold contacts			■			■			788-412
24 VDC	8 A		2		AgNi		■	■	■						2042-3014
24 VDC	8 A	2			AgNi		■	■	■						2042-3044
24 VDC	8 A		1	1	AgNi		■	■	■						2042-3064
24 VDC	8 A	2			AgNi	With manual operation									789-1346
24 VDC	8 A	2			AgNi 90/10										789-312

WAGO Coupler Relays
Selection Guide

Nominal input voltage	Limiting continuous current	Changeover contact	Make contact	Break contact	Contact material	Specialty Functions	For railway applications	Standards/specifications							Item no.
								EN 50121-3-2	EN 61373	EN 61810-3	DNV	UL 508	ATEX	IECEx	
24 VDC	10 A	1			AgNi		■	■	■						2042-3034
24 VDC	12 A	2			AgNi	With manual operation						■			858-324
24 VDC	12 A	1			AgNi	With manual operation									789-1341
24 VDC	12 A	1			$AgSnO_2$	Manual/OFF/Auto switch; For lamp loads									789-326
24 VDC	12 A	1			$AgSnO_2$	Manual/OFF/Auto switch; Switch setting feedback; For lamp loads									789-329
24 VDC	12 A	1			AgNi 90/10										789-304
24 VDC	16 A	1			AgNi	With manual operation			■			■			788-341
24 VDC	16 A	1			AgNi	With manual operation	■		■						788-391
24 VDC	16 A	1			$AgSnO_2$	For lamp loads			■			■			788-354
24 VDC	16 A		1		$AgSnO_2$	For lamp loads			■			■			788-356
24 VDC	16 A		1		$AgSnO_2$	For lamp loads; Tungsten pre-make contact			■						788-357
24 VDC	16 A	1			AgNi 90/10				■		■	■			788-304/003-000
24 VDC	16 A	1			AgNi 90/10				■			■			788-304
24 VDC	16 A	1			AgNi + Au	Gold contacts			■			■			788-404
24 VDC	16 A		1		$AgSnO_2$	Manual/OFF/Auto switch; Feedback contact; Tungsten pre-make contact; For lamp loads									789-324
24 VDC	16 A		1		$AgSnO_2$	Manual/OFF/Auto switch; Feedback contact; For lamp loads									789-325
24 VDC	16 A		1		$AgSnO_2$	Manual/OFF/Auto switch; For lamp loads									789-323
24 VDC	16 A		1		$AgSnO_2$	Latching relay									789-571
36 VDC	5 A	1			AgNi + Au	Gold contacts	■	■	■						859-386
48 VDC	5 A	4			AgCe	With manual operation			■			■			858-305
48 VDC	5 A	1			$AgSnO_2$		■	■	■		■				859-397
48 VDC	5 A	1			$AgSnO_2$				■		■	■			859-305
48 VDC	6 A	1			$AgSnO_2$				■			■			857-305
48 VDC	8 A	2			AgNi	With manual operation			■			■			788-347
48 VDC	8 A	2			AgNi 90/10				■			■			788-313
48 VDC	12 A	2			AgNi	With manual operation						■			858-325
48 VDC	16 A	1			AgNi	With manual operation			■			■			788-342
48 VDC	16 A	1			AgNi 90/10				■			■			788-305
60 VDC	8 A	2			AgNi 90/10				■			■			788-314
60 VDC	16 A	1			AgNi 90/10				■			■			788-306
110 VDC	5 A	4			AgCe	With manual operation			■			■			858-307
110 VDC	5 A	1			AgNi + Au	Gold contacts	■		■		■	■			859-317
110 VDC	5 A	1			$AgSnO_2$		■		■		■	■			859-391
110 VDC	5 A	1			$AgSnO_2$		■		■		■				859-399
110 VDC	5 A	1			$AgSnO_2$				■		■	■			859-307
110 VDC	6 A	4			AgNi 90/10	With manual operation			■						858-392
110 VDC	8 A	2			AgNi	With manual operation			■			■			788-349
110 VDC	8 A	2			AgNi 90/10				■			■			788-315
110 VDC	16 A	1			AgNi	With manual operation			■			■			788-344
110 VDC	16 A	1			AgNi 90/10				■			■			788-307
220 VDC	5 A	4			AgCe	With manual operation			■			■			858-308
220 VDC	5 A	1			$AgSnO_2$				■		■	■			859-308
220 VDC	6 A	4			AgNi 90/10	With manual operation			■			■			858-391
220 VDC	12 A	2			AgNi	With manual operation						■			858-328

WAGO Coupler Relays
Selection Guide

1

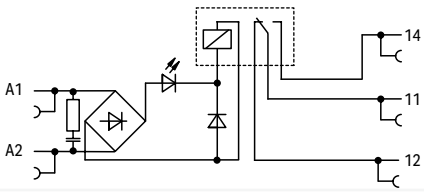
Nominal input voltage	Limiting continuous current	Changeover contact	Make contact	Break contact	Contact material	Specialty Functions	For railway applications	Standards/specifications							Item no.
								EN 50121-3-2	EN 61373	EN 61810-3	DNV	UL 508	ATEX	IECEx	
24 VAC	5 A	4			AgCe	With manual operation			■			■			858-504
24 VAC	5 A	4			AgCe + Au	With manual operation; Gold contacts			■			■			858-514
24 VAC	8 A	2			AgNi	With manual operation			■			■			788-546
24 VAC	8 A	2			AgNi 90/10				■		■	■			788-512
24 VAC	16 A	1			AgNi	With manual operation			■			■			788-541
24 VAC	16 A	1			AgNi 90/10				■		■	■			788-506
115 VAC	5 A	4			AgCe	With manual operation			■			■			858-507
115 VAC	5 A	4			AgCe + Au	With manual operation; Gold contacts			■			■			858-517
115 VAC	5 A	1			$AgSnO_2$	Defined turn-on/turn-off threshold			■		■	■			859-367
115 VAC	7 A	1			AgNi 0.15										286-507
115 VAC	8 A	2			AgNi	With manual operation			■			■			788-548
115 VAC	8 A	2			AgNi 90/10				■		■	■			788-515
115 VAC	8 A	2			AgNi + Au	Gold contacts			■		■	■			788-615
115 VAC	16 A	1			AgNi	With manual operation			■			■			788-543
115 VAC	16 A	1			AgNi 90/10				■		■	■			788-507
115 VAC	16 A	1			AgNi + Au	Gold contacts			■		■	■			788-607
230 VAC	5 A	4			AgCe	With manual operation			■		■	■			858-508
230 VAC	5 A	4			AgCe + Au	With manual operation;Gold contacts			■		■	■			858-518
230 VAC	5 A	1			$AgSnO_2$	Defined turn-on/turn-off threshold			■		■	■			859-368
230 VAC	6 A	1			$AgSnO_2$	Integrated base load module			■						857-358/006-000
230 VAC	6 A	1			AgNi + Au	Integrated base load module; Gold contacts			■						857-368/006-000
230 VAC	7 A	1			AgNi 0.15										286-508
230 VAC	7 A	2			AgNi 0.15										286-516
230 VAC	8 A	2			AgNi	With manual operation			■			■			788-549
230 VAC	8 A	2			AgNi 90/10				■		■	■			788-516
230 VAC	8 A	2			AgNi + Au	Gold contacts			■		■	■			788-616
230 VAC	12 A	2			AgNi	With manual operation						■			858-528
230 VAC	12 A	1			AgNi	With manual operation									789-1544
230 VAC	16 A	1			AgNi	With manual operation			■			■			788-544
230 VAC	16 A	1			AgNi 90/10				■		■	■			788-508
230 VAC	16 A	1			AgNi + Au	Gold contacts			■		■	■			788-608
230 VAC	16 A		1		$AgSnO_2$	Latching relay									789-570

WAGO Coupler Relays
Selection Guide

Nominal input voltage	Limiting continuous current	Changeover contact	Make contact	Break contact	Contact material	Specialty Functions	For railway applications	Standards/specifications							Item no.
								EN 50121-3-2	EN 61373	EN 61810-3	DNV	UL 508	ATEX	IECEx	
12 VAC/VDC	5 A	1			$AgSnO_2$				■		■	■			859-353
24 VAC/VDC	4 A		1		$AgSnO_2$				■			■	■	■	857-1330
24 VAC/VDC	4 A		2	2	AgNi + Au	Gold contacts									789-536
24 VAC/VDC	4 A		4		AgNi + Au	Gold contacts									789-552
24 VAC/VDC	5 A	1			$AgSnO_2$				■		■	■			859-354
24 VAC/VDC	5 A		1		AgNi 0.15										288-564
24 VAC/VDC	6 A	1			$AgSnO_2$				■			■	■	■	857-354
24 VAC/VDC	6 A	1			AgNi + Au	Gold contacts			■			■	■	■	857-364
24 VAC/VDC	6 A		4	4	$AgSnO_2$	Force-guided contacts				■		■			288-414
24 VAC/VDC	6 A	1			AgNi 90/10										288-504
24 VAC/VDC	6 A	2			AgNi 0.15										288-512
24 VAC/VDC	16 A		1		$AgSnO_2$	For lamp loads									789-520
48 VAC/VDC	5 A	1			$AgSnO_2$				■		■	■			859-355
115 VAC/VDC	5 A	1			$AgSnO_2$				■		■	■			859-357
115 VAC/VDC	5 A	1			AgNi + Au	Gold contacts			■		■	■			859-360
115 VAC/VDC	6 A	1			$AgSnO_2$				■			■	■	■	857-357
230 VAC/VDC	5 A	1			$AgSnO_2$				■		■	■			859-358
230 VAC/VDC	5 A	1			AgNi + Au	Gold contacts			■		■	■			859-359
230 VAC/VDC	6 A	1			$AgSnO_2$				■		■	■	■	■	857-358
230 VAC/VDC	6 A	1			AgNi + Au	Gold contacts			■		■	■	■	■	857-368
230 VAC/VDC	6 A		4	4	$AgSnO_2$	Force-guided contacts				■		■			288-418
24 … 230 VAC/VDC	3 A		1		$AgSnO_2$	Wide input voltage range		■	■						2042-3809
24 … 230 VAC/VDC	3 A		4		AgNi	Wide input voltage range		■	■						2042-3829
24 … 230 VAC/VDC	3 A		3	1	AgNi	Wide input voltage range		■	■						2042-3879
24 … 230 VAC/VDC	3 A		2	2	AgNi	Wide input voltage range		■	■						2042-3889
24 … 230 VAC/VDC	4 A	1			AgNi	Wide input voltage range		■	■						2042-3839
24 … 230 VAC/VDC	5 A		2		AgNi	Wide input voltage range		■	■						2042-3819
24 … 230 VAC/VDC	5 A	2			AgNi	Wide input voltage range		■	■						2042-3849
24 … 230 VAC/VDC	5 A		1	1	AgNi	Wide input voltage range		■	■						2042-3869
24 … 230 VAC/VDC	6 A	1			$AgSnO_2$	Wide input voltage range		■	■			■			857-359
24 … 230 VAC/VDC	6 A	1			AgNi + Au	Wide input voltage range; Gold contacts		■	■			■			857-369
24 … 230 VAC/VDC	6 A			1	$AgSnO_2$	Wide input voltage range		■	■						2042-3859

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Integrated base load module ▶ Status indicator: Yellow LED ▶ Width: 6 mm

1



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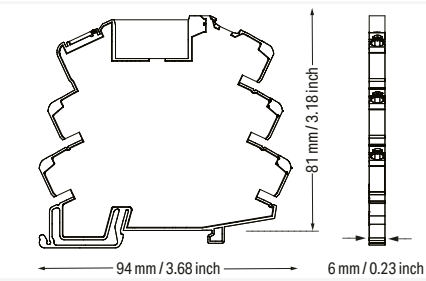
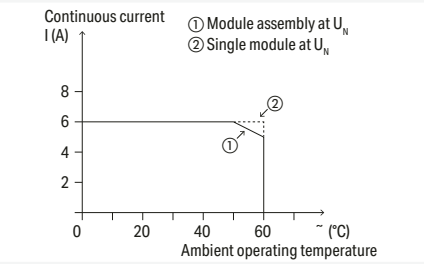
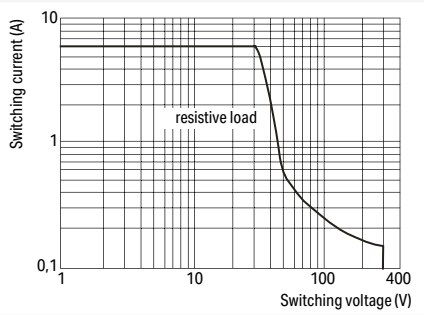


Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

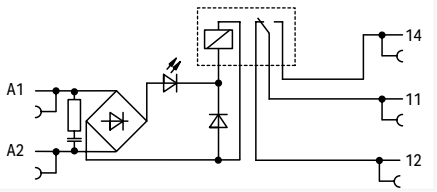
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-15 … +10 %
Nominal input current at U_N	16 mA
Line capacitance (max.)	170 nF
Cable length (control circuit)	≤ 350 m (for a line capacitance of 330 nF/km)
Nominal frequency range (input voltage)	50 … 60 HzAC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373
Basic relay	
WAGO Basic Relay	857-155

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Integrated base load module; Gold contacts ▶ Status indicator: Yellow LED ▶ Width: 6 mm



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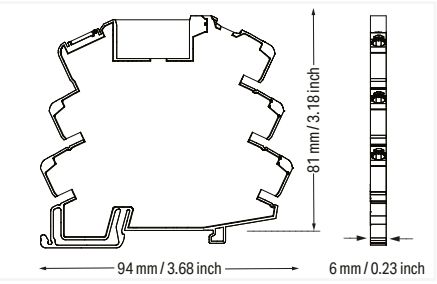
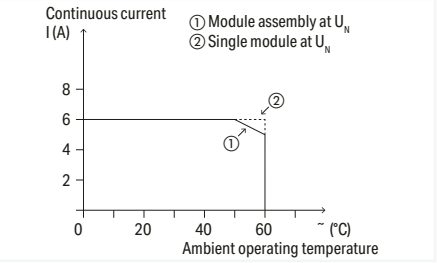
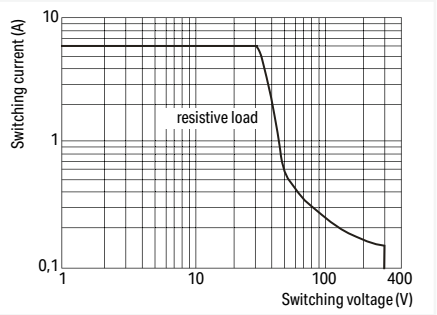


Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

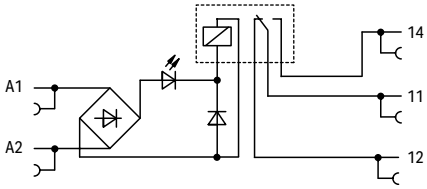
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-15 … +10 %
Nominal input current at U_N	16 mA
Line capacitance (max.)	170 nF
Cable length (control circuit)	≤ 350 m (for a line capacitance of 330 nF/km)
Nominal frequency range (input voltage)	50 … 60 HzAC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373
Basic relay	
WAGO Basic Relay	857-157

Relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm



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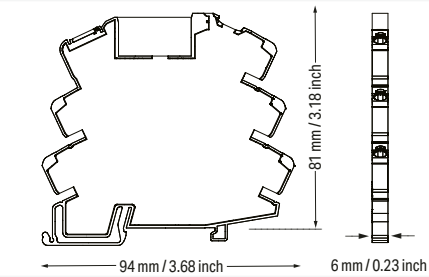
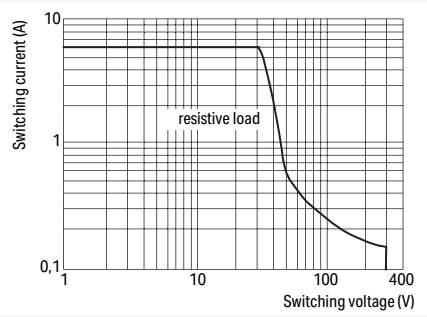


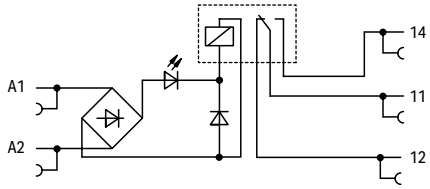
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range	±20 %
Nominal input current at U_N	4 mA
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx
Basic relay	
WAGO Basic Relay	857-155

Relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm



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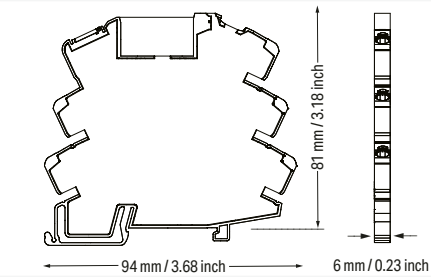
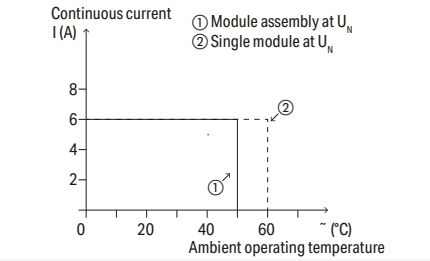
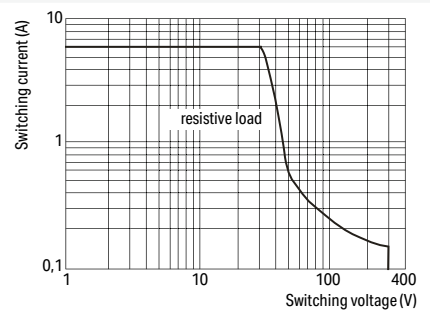


Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

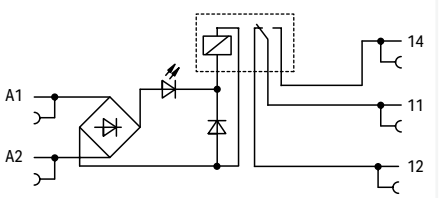
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	4 mA
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx; DNV
Basic relay	
WAGO Basic Relay	857-155

Relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Yellow LED ▶ Width: 6 mm



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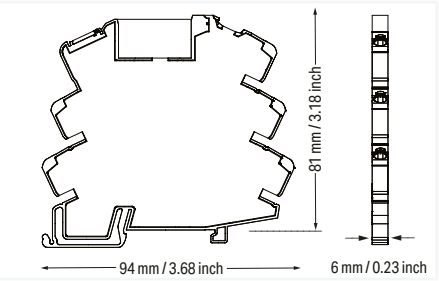
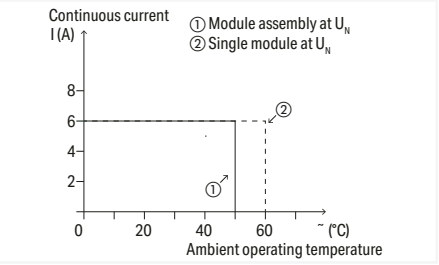
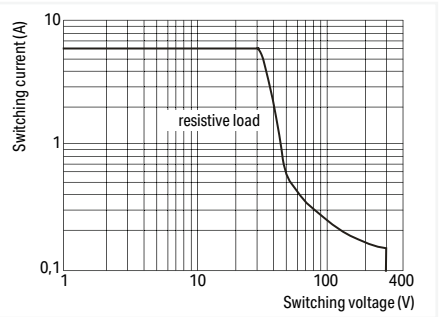


Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

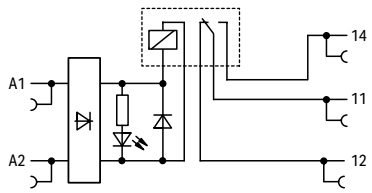
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	4 mA
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx; DNV
Basic relay	
WAGO Basic Relay	857-157

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Wide input voltage range ▶ Status indicator: Yellow LED ▶ Width: 6 mm



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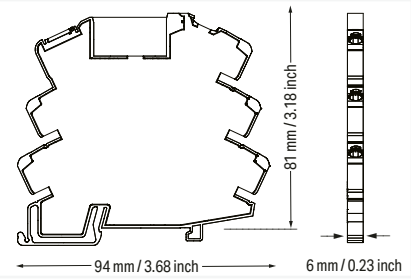
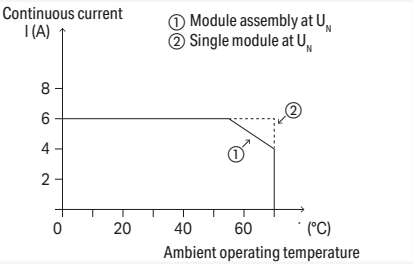
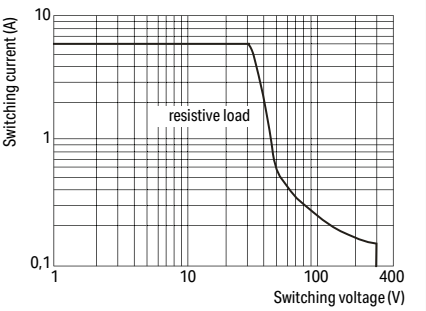


Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

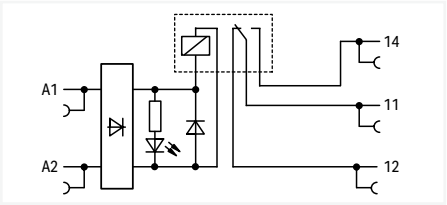
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



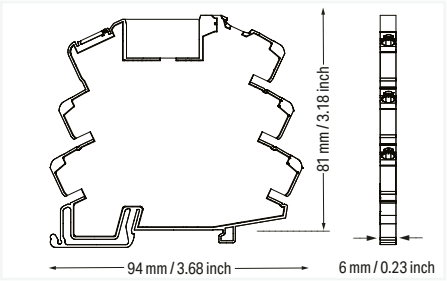


Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	-30 … +10 %
Nominal input current at U_N	4 mA (230 VAC); 20 mA (24 VDC)
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 50121-3-2; EN 61010-2-201; EN 61810-1; EN 61373; EN 61000-6-2; EN 61000-6-3; EN 50121-3; UL 508
Basic relay	
WAGO Basic Relay	857-150

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Wide input voltage range; Gold contacts ▶ Status indicator: Yellow LED ▶ Width: 6 mm

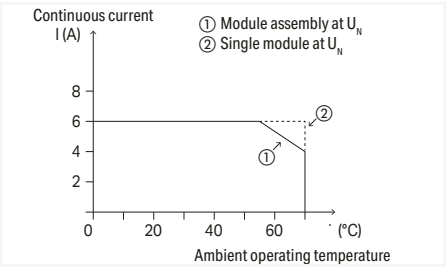


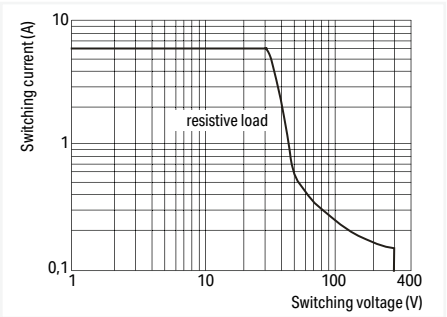
Item No.	PU
857-369	25



Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

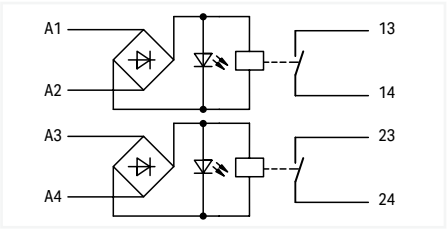
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



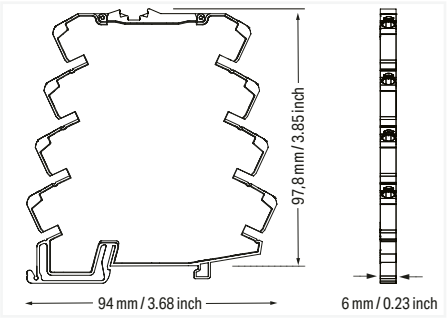


Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	-30 … +10 %
Nominal input current at U_N	4 mA (230 VAC); 20 mA (24 VDC)
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 50121-3-2; EN 61010-2-201; EN 61810-1; EN 61373; EN 61000-6-2; EN 61000-6-3; EN 50121-3; UL 508
Basic relay	
WAGO Basic Relay	857-151

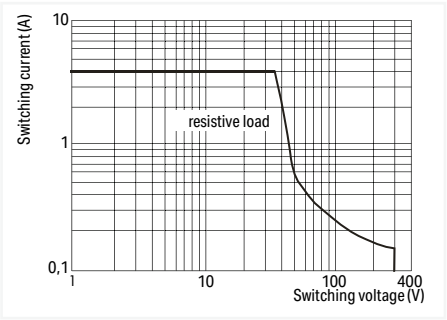
Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 4 A ▶ Number of make/switch-on contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm



Item No.	PU
857-1330	25

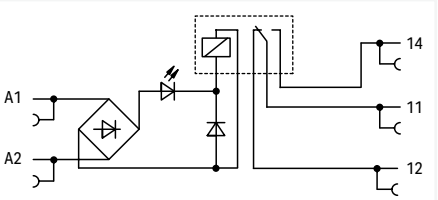


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

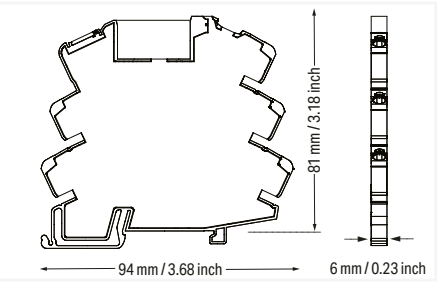


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	10 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	4 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	3 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm

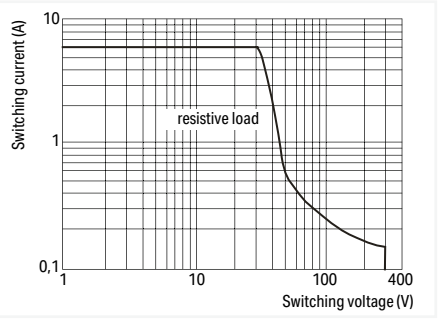


Item No.	PU
857-354	25



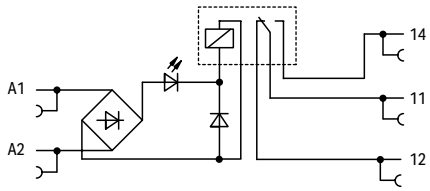
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

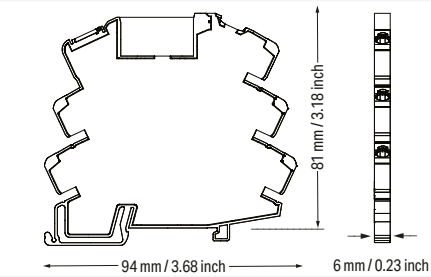


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	9 mA
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Short circuit protection (load circuit)	4 A; Fast (F)
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx
Basic relay	
WAGO Basic Relay	857-152

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Yellow LED ▶ Width: 6 mm

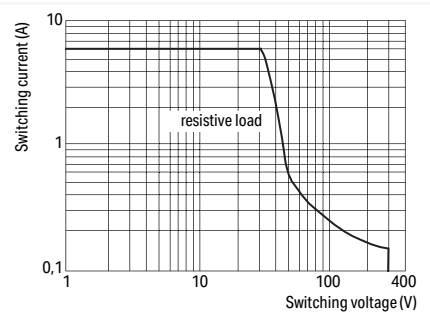


Item No.	PU
857-364	25



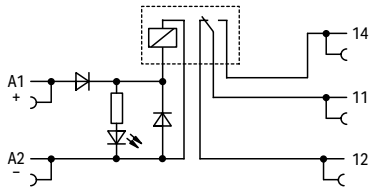
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

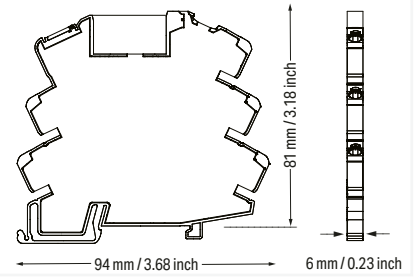


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	9 mA
Nominal frequency range (input voltage)	50 … 60 HzAC / 0 HzDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx
Basic relay	
WAGO Basic Relay	857-157

Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm

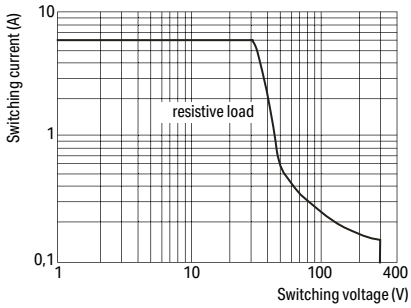


Item No.	PU
857-303	25



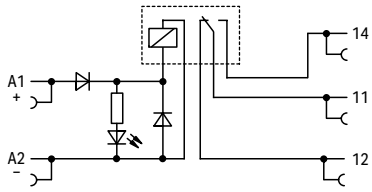
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

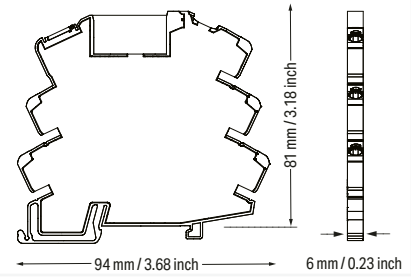


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx
Basic relay	
WAGO Basic Relay	857-150

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm

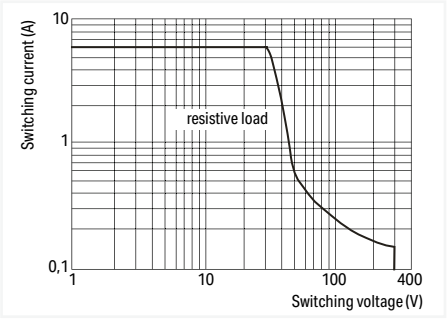


	Item No.	PU
	857-304	25



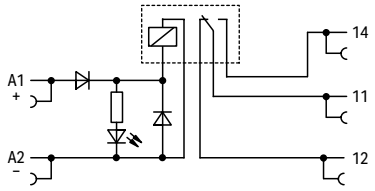
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

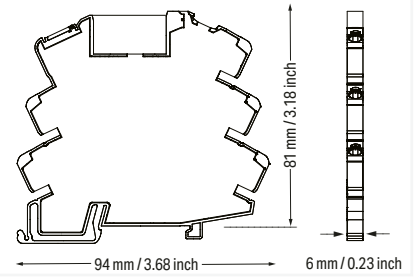


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Short circuit protection (load circuit)	4 A; Fast (F)
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx; DNV
Basic relay	
WAGO Basic Relay	857-152

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Yellow LED ▶ Width: 6 mm

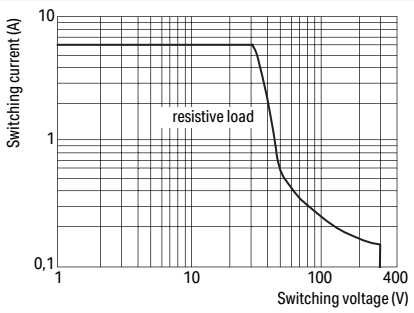


Item No.	PU
857-314	25



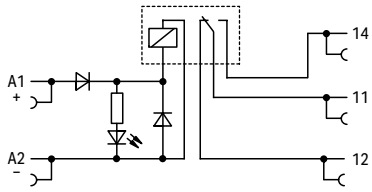
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

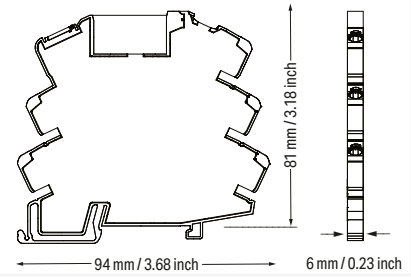


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; ATEX; IECEx; DNV
Basic relay	
WAGO Basic Relay	858-153

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Yellow LED ▶ Width: 6 mm

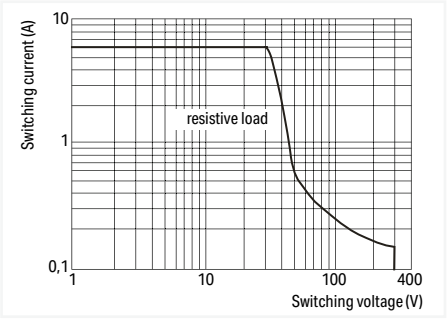


	Item No.	PU
	857-305	25



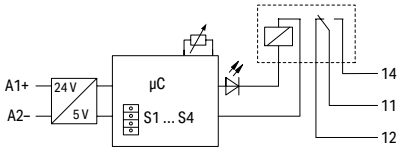
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

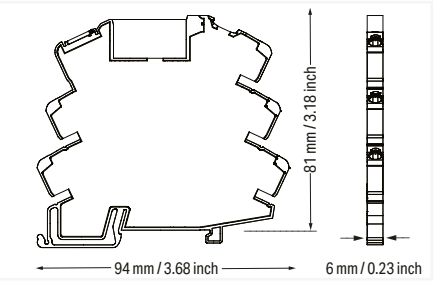


Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	857-154

Relay module; Timer relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Multifunctional/multi-time; Time function; For railway applications ▶ Width: 6 mm

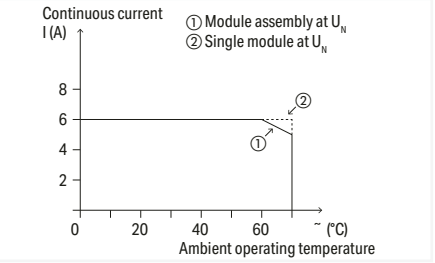


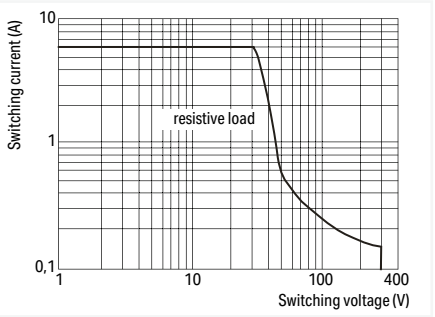
	Item No.	PU
	857-604	1



Features:
- 4 functions
- Function and time range adjustable via DIP switch
- Potentiometer for fine adjustment of the time intervals

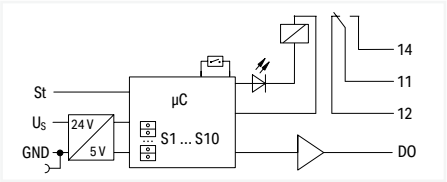
Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.



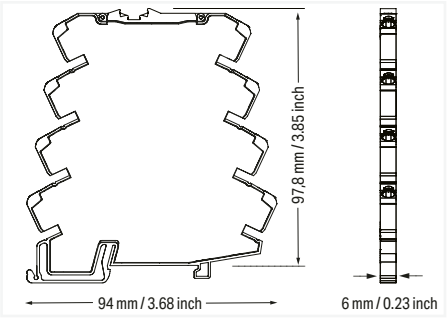


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	±30 %
Nominal input current at U_N	18 mA
Time range	0.1 … 10 s; 3 … 300 s; 0.3 … 30 min; 3 … 300 min
Reset time	50 ms
Repeat accuracy	1 %
Minimum pulse length (control input)	10 ms
Functions	On-delay; Single-shot leading edge; On-delay and single-shot leading edge (1 s fixed); Flashing
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Short circuit protection (load circuit)	6.3 A; Slow (T); testing based on EN 61812-1 with a short-circuit current of 100 ADC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2; UL 508
Basic relay	
WAGO Basic Relay	857-150

Relay module; Timer relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Multifunctional/multi-time; Time function; For railway applications ▶ Width: 6 mm



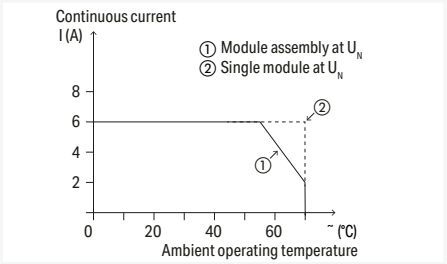
Item No.	PU
857-640	1

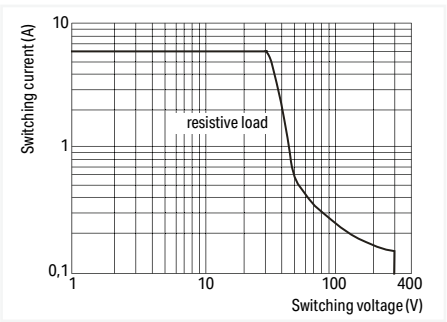


Features:
- 14 functions
- Function and time range adjustable via DIP switch
- Push/slide switch for fine-tuning the times

Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

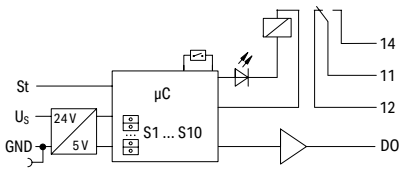
Note
The 6 (GND) and 8 (GND) connections are internally commoned. The current carrying capacity is: 4 A (max.)



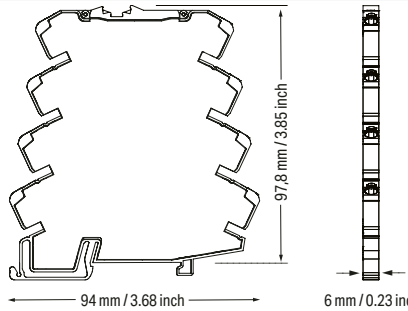


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	±30 %
Nominal input current at U_N	0.5 mA
Time range	0.01 … 0.1 s; 0.1 … 1 s; 1 … 10 s; 10 … 100 s; 1 … 10 min; 10 … 100 min; 1 … 10 h; 10 … 100 h
Reset time	50 ms
Minimum pulse length (control input)	10 ms
Functions	On-delay; On-delay (with control input); Off-delay (with control input); On- and off-delay (with control input); Single-shot leading edge; Single-shot leading edge (with control input); Single-shot trailing edge (with control input); Single-shot leading and trailing edge (with control input); On-delay and single-shot leading edge; On-delay and single-shot leading edge (with control input); Step switching; Flashing (pulse start); Flashing, interval start; Relay switching
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Digital output (DO)	U_N - 1 V ; 100 mA
Short circuit protection (load circuit)	6.3 A; Slow (T); testing based on EN 61812-1 with a short-circuit current of 100 ADC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61373; EN 50121-3-2; UL 508; EN 61010-2-201

Relay module; Timer relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Multifunctional/multi-time; Time function; For railway applications ▶ Width: 6 mm



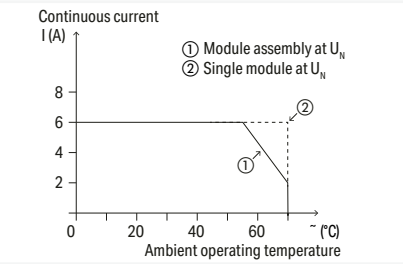
Item No.	PU
857-642	1

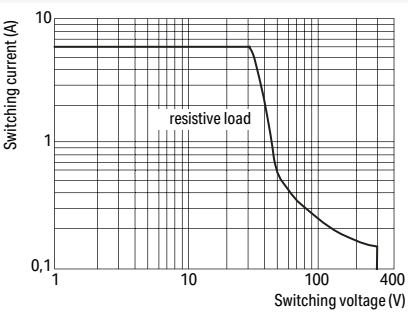


Features:
- 7 functions
- 2 separately adjustable time ranges
- Function and time range adjustable via DIP switch
- Push/slide switch for fine-tuning the times

Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Note
The 6 (GND) and 8 (GND) connections are internally commoned. The current carrying capacity is: 4 A (max.)

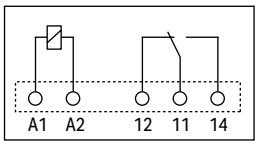




Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	±30 %
Nominal input current at U_N	0.5 mA
Time range	0.01 … 0.1 s; 0.1 … 1 s; 1 … 10 s; 10 … 100 s; 1 … 10 min; 10 … 100 min; 1 … 10 h; 10 … 100 h
Reset time	50 ms
Minimum pulse length (control input)	10 ms
Functions	On- and off-delay (with control input); On-delay and single-shot leading edge; On-delay and single-shot leading edge (with control input); Single-shot leading and trailing edge (with control input); Pulse sequence evaluation (with control input); Repeat cycle timer (pulse start); Repeat cycle timer (interval start), control input
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Digital output (DO)	U_N - 1 V ; 100 mA
Short circuit protection (load circuit)	6.3 A; Slow (T); testing based on EN 61812-1 with a short-circuit current of 100 ADC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61373; EN 50121-3-2; UL 508; EN 61010-2-201

Basic relay ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1

Similar to illustration



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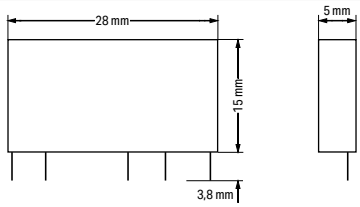
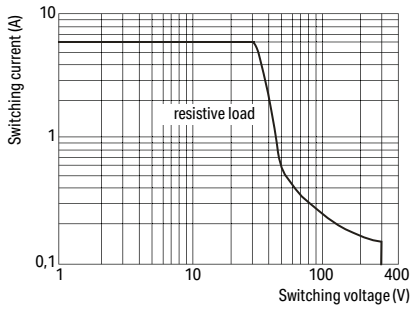


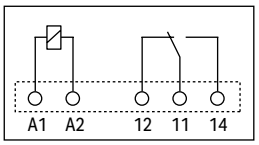
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	12 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Basic relay ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts

Similar to illustration



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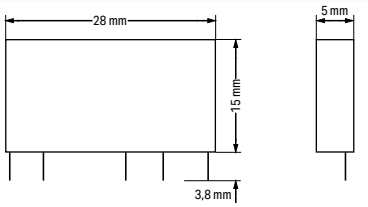
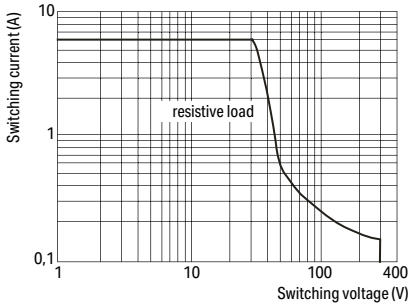
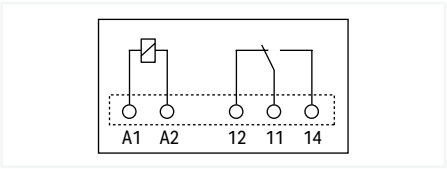


Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	12 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1



Item No.	PU
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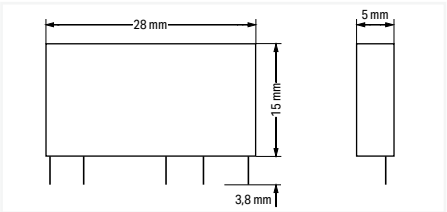
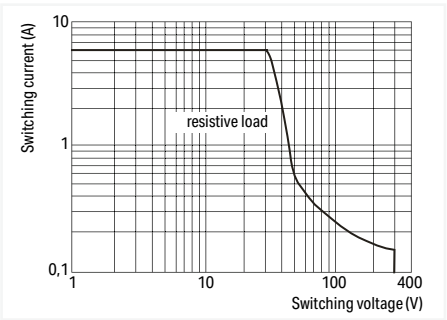
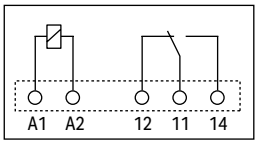


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts



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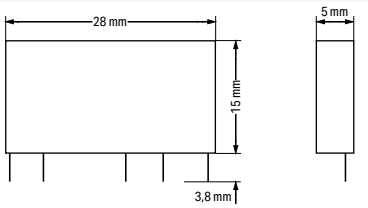
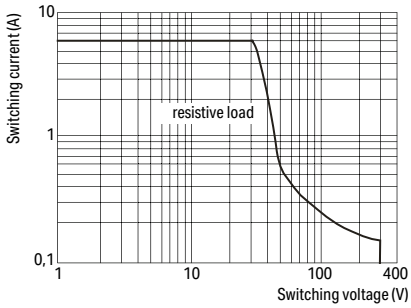


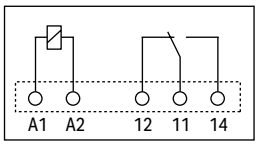
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Basic relay ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1

Similar to illustration



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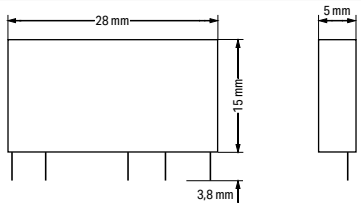
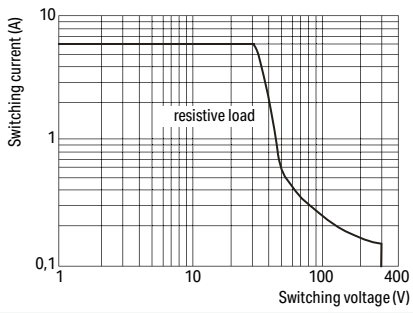
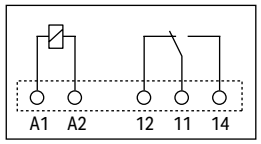


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	48 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Basic relay ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1



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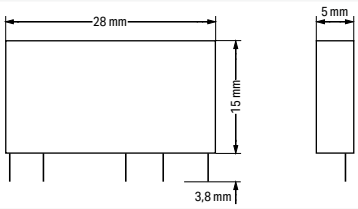
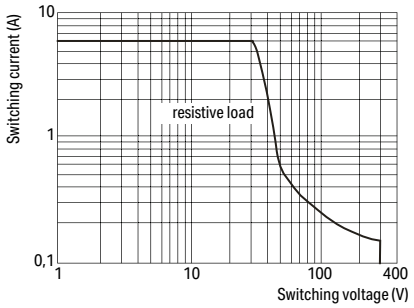
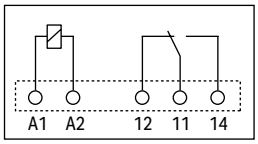


Note
The 60 VDC basic relay must be used for 60 VDC, 110 VDC, 220 VDC and 115 VAC/DC, 230 VAC/DC relay modules.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit. 30 VDC switching voltages and 50 mA currents must not be exceeded for gold-plated basic relays. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.

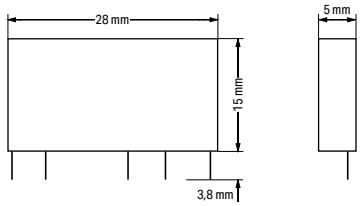


Control circuit	
Nominal input voltage U_N	60 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

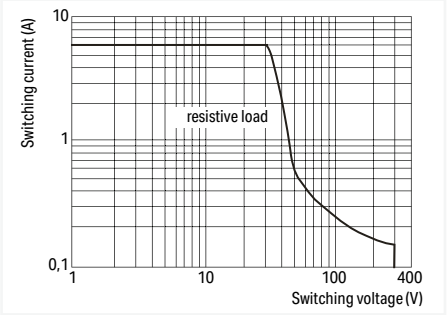
Basic relay ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts



Item No.	PU
857-157	20



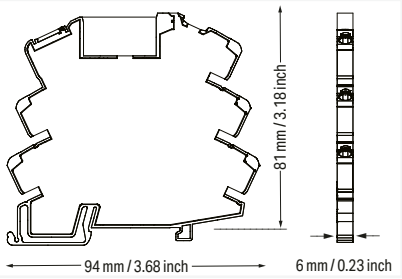
Note
The 60 VDC basic relay must be used for 60 VDC, 110 VDC, 220 VDC and 115 VAC/DC, 230 VAC/DC relay modules.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit. 30 VDC switching voltages and 50 mA currents must not be exceeded for gold-plated basic relays. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



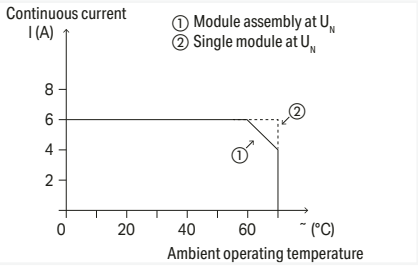
Control circuit	
Nominal input voltage U_N	60 VDC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61810-1; EN 61373; VDE; UR

Socket without relay ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Status indicator: Yellow LED ▶ Width: 6 mm

Item No.	PU
857-104	25



Note
The relay/SSR used influences the electrical properties of the module.



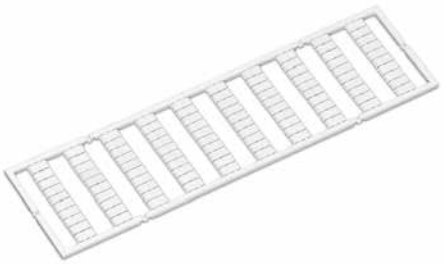
Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Load circuit	
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; UR

Accessories

Push-in type jumper bar; light gray; insulated; 18 A		
Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)
Item no. suffixes for colored push-in type jumper bars		
yellow	.../000-029	
red	.../000-005	
blue	.../000-006	

Comb-style jumper bar; insulated; for conductor entry		
Description	Item No.	PU
2-way	281-482	100

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade		
	Item No.	PU
	210-720	50

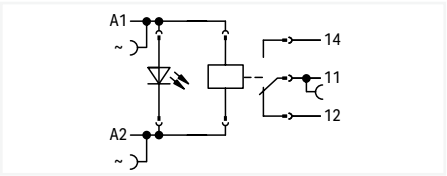


WMB marker card; 10 strips with 10 markers; white; with black printing		
Marking	Item No.	PU
plain	793-501	5 cards
1 ...10 (10 x)	793-502	5 cards
11 ... 20 (10 x)	793-503	5 cards
21 ... 30 (10 x)	793-504	5 cards
31 ... 40 (10 x)	793-505	5 cards
41 ... 50 (10 x)	793-506	5 cards
1 ... 50 (2 x)	793-566	5 cards

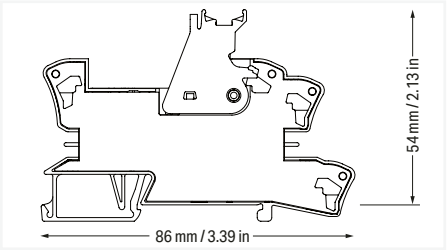
WMB Inline; for terminal block width: 5 ... 5.2 mm; plain; 1500 markers/reel; white		
Marking	Item No.	PU
plain	2009-115	1

Marking strip; plain; 11 mm wide; 50 m reel; white		
Marking	Item No.	PU
plain	2009-110	1

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

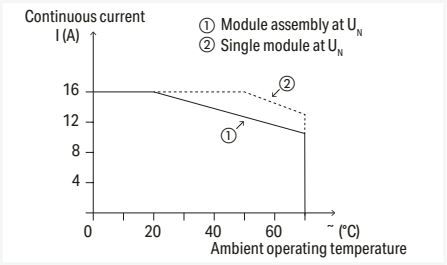


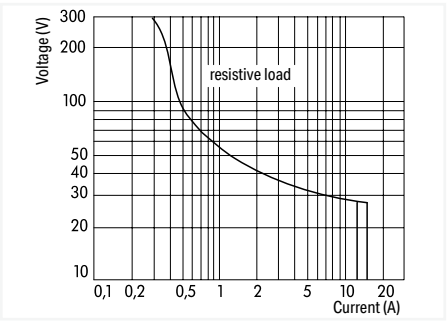
Item No.	PU
788-507	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

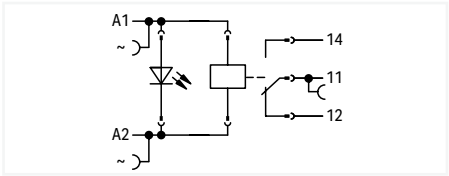
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



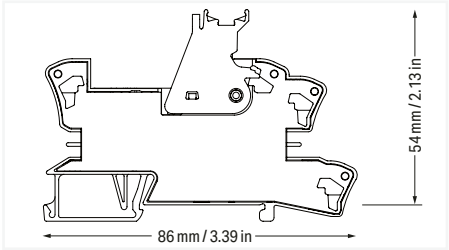


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 600 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 40 °C); DNV
Basic relay	
WAGO Basic Relay	788-174

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

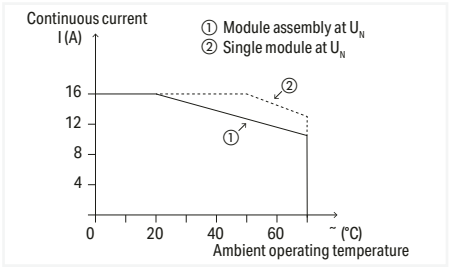


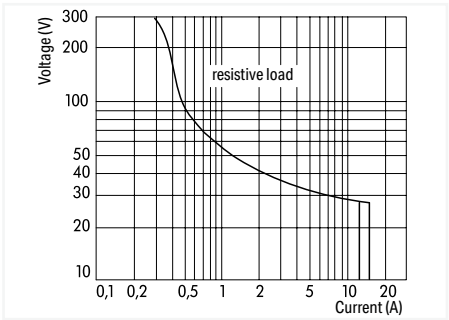
Item No.	PU
788-607	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

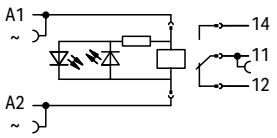




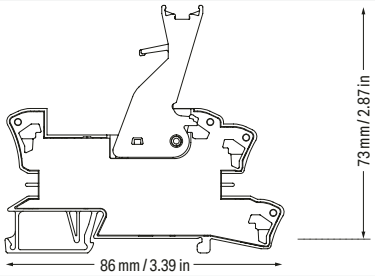
Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	70 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-175

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

1

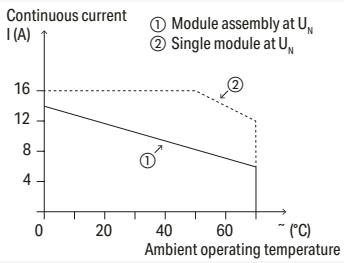


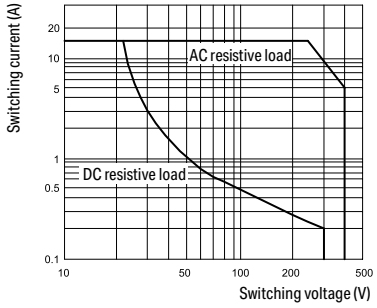
	Item No.	PU
	788-543	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

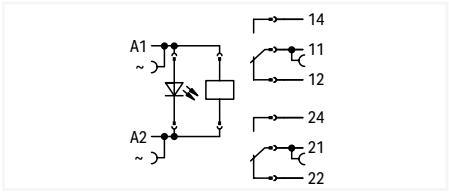
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



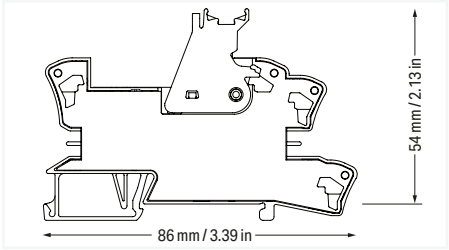


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

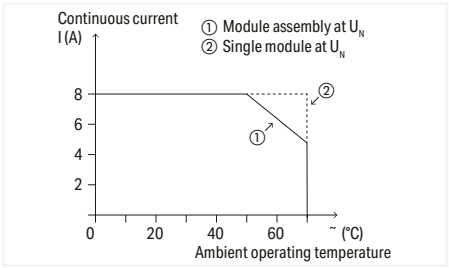


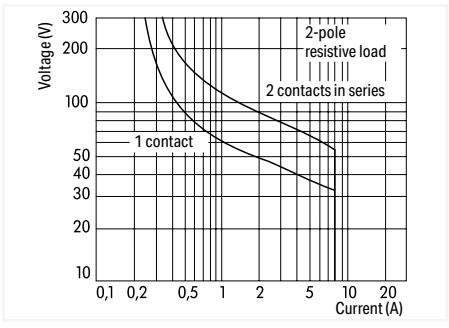
	Item No.	PU
	788-515	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

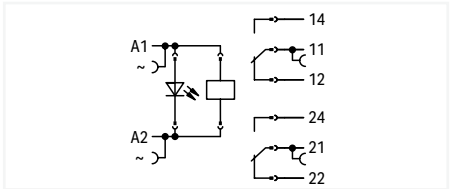
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



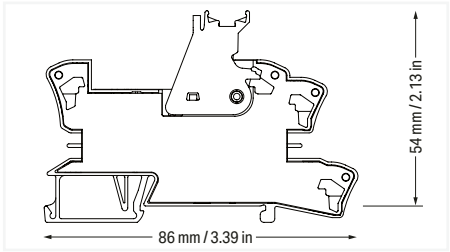


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-176

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

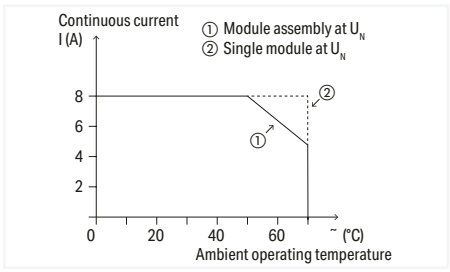


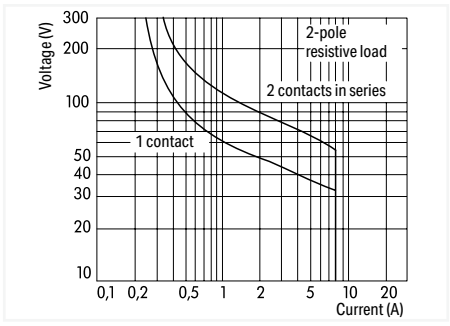
Item No.	PU
788-615	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

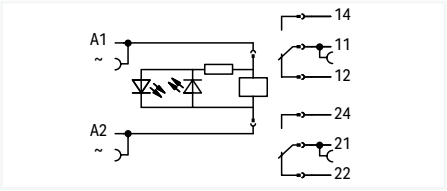
Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



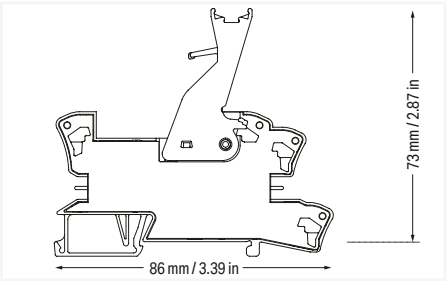


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-177

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

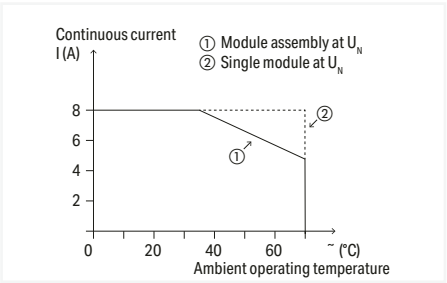


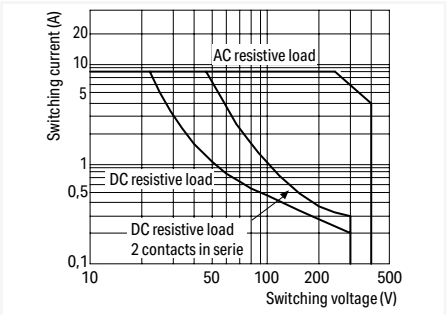
Item No.	PU
788-548	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

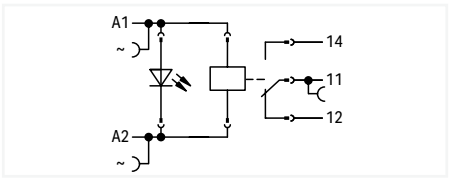
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



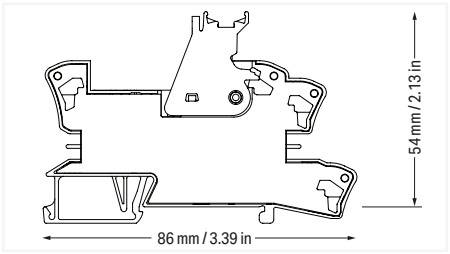


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

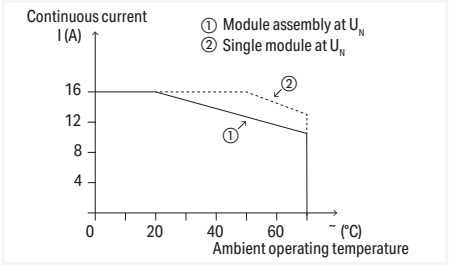


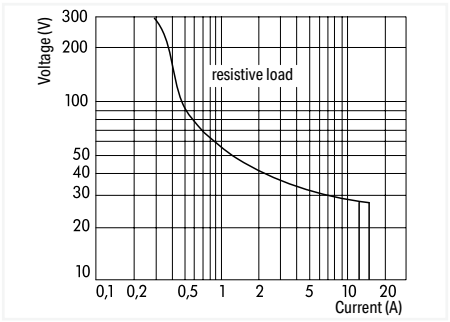
Item No.	PU
788-508	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

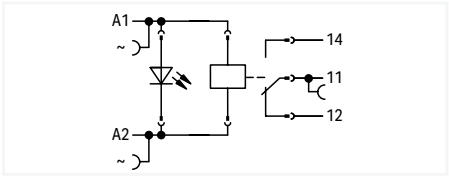
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



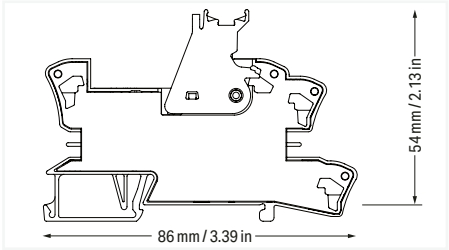


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 600 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 40 °C); DNV
Basic relay	
WAGO Basic Relay	788-178

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

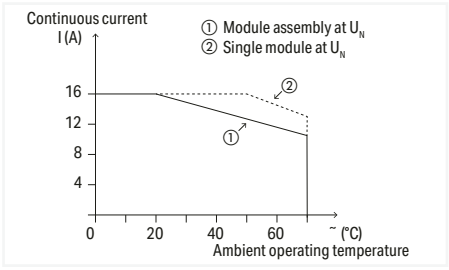


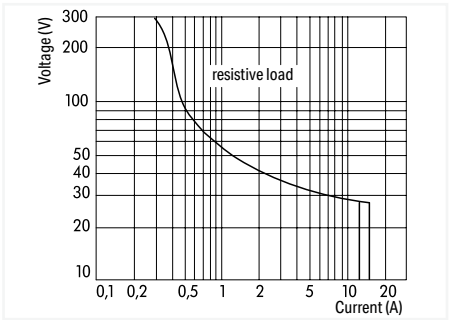
Item No.	PU
788-608	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

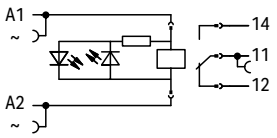




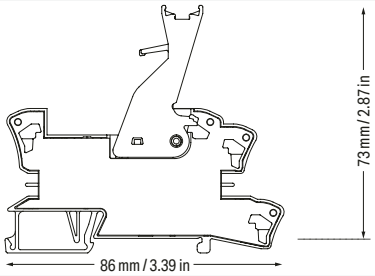
Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	5 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	70 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-179

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

1

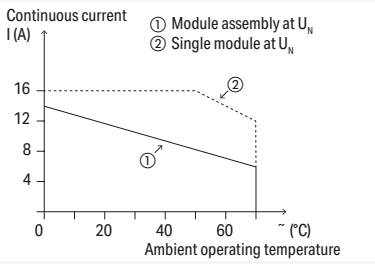


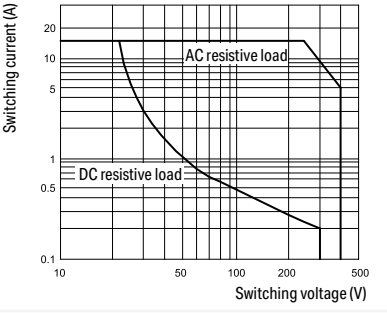
Item No.	PU
788-544	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

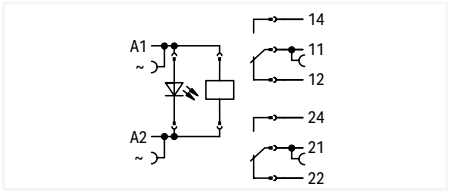
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



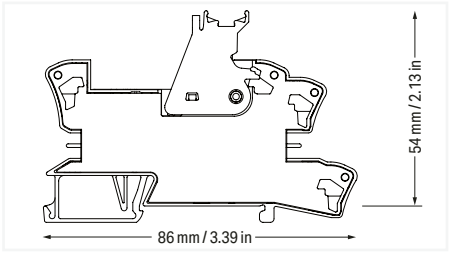


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

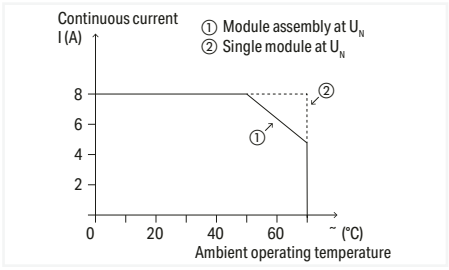


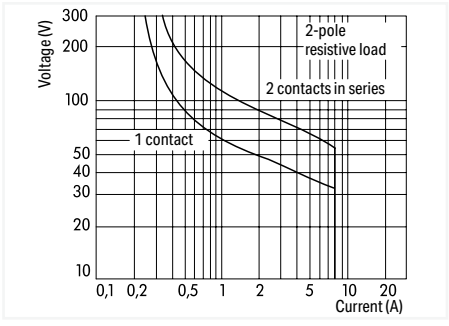
	Item No.	PU
	788-516	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

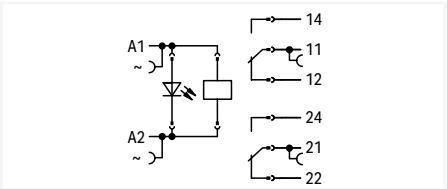
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



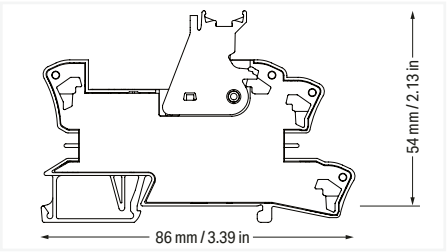


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-180

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

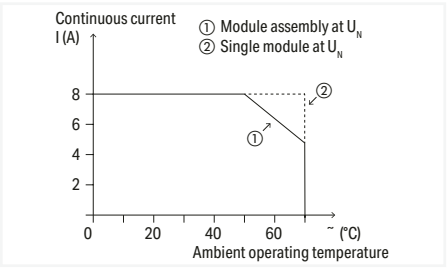


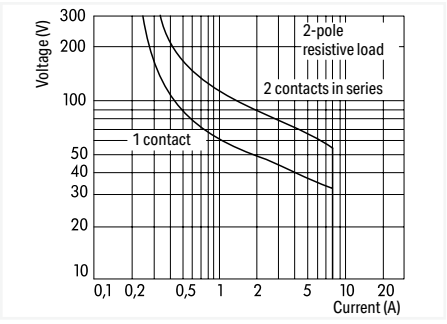
Item No.	PU
788-616	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

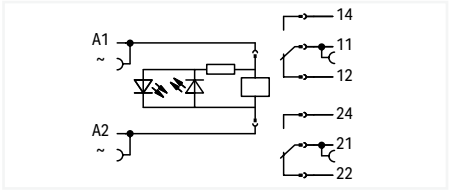
Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



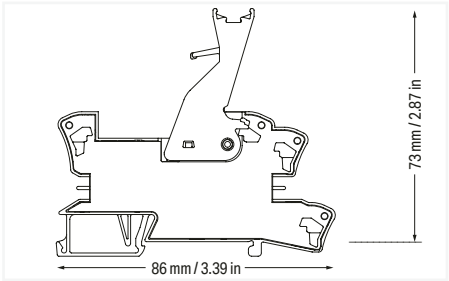


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	5 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-181

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

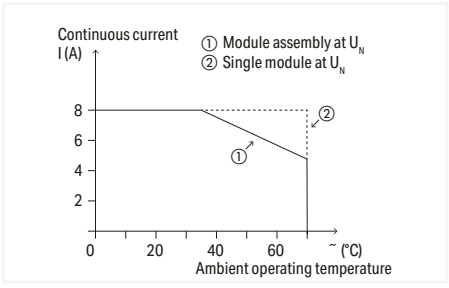


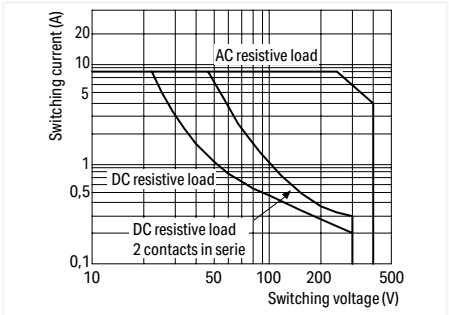
Item No.	PU
788-549	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

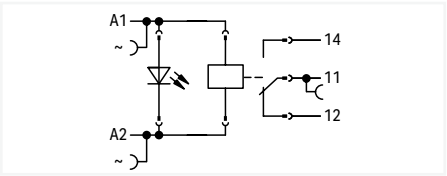
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



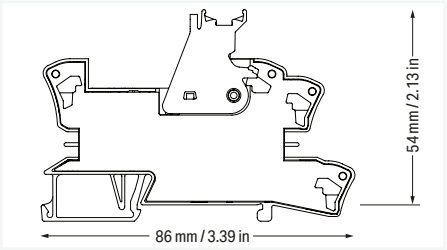


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-949

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

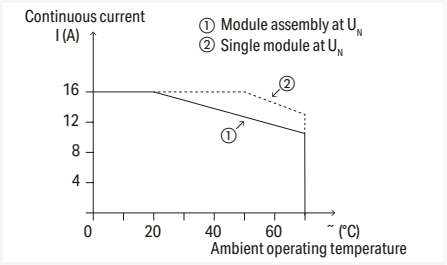


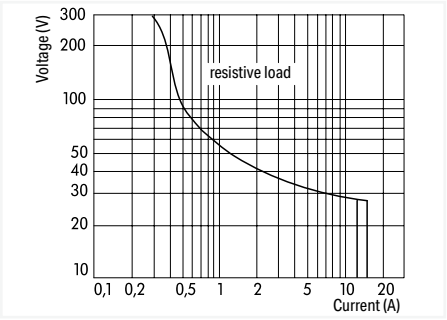
Item No.	PU
788-506	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

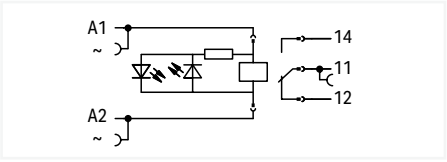
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



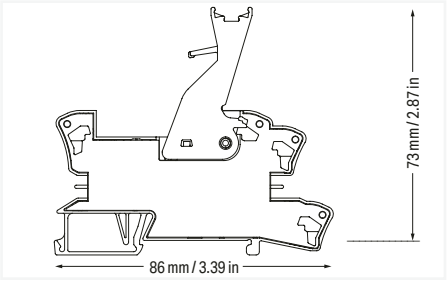


Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	±10 %
Nominal input current at U_N	34 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 600 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-170

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

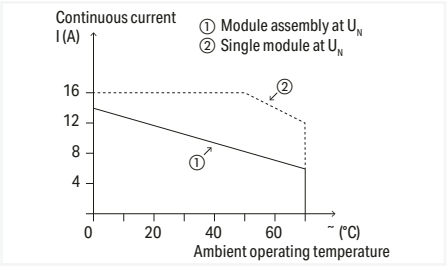


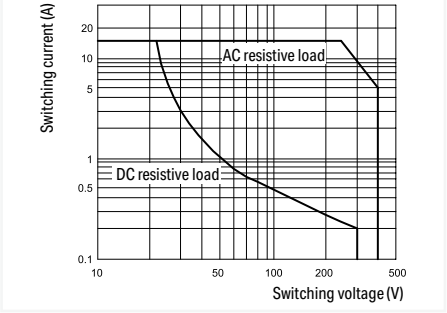
Item No.	PU
788-541	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

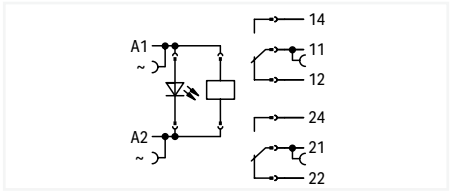
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



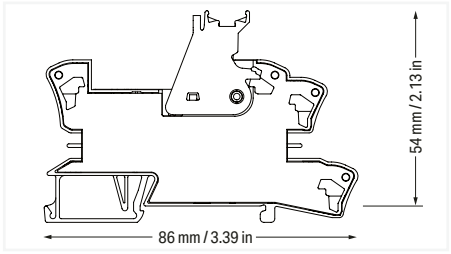


Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	±10 %
Nominal input current at U_N	32 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

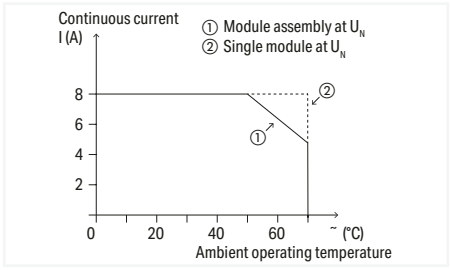


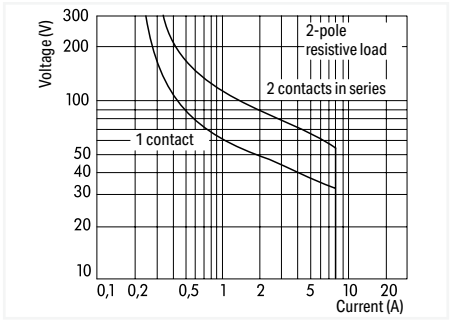
Item No.	PU
788-512	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

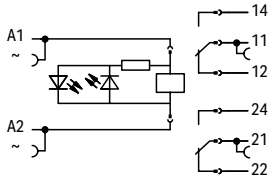
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



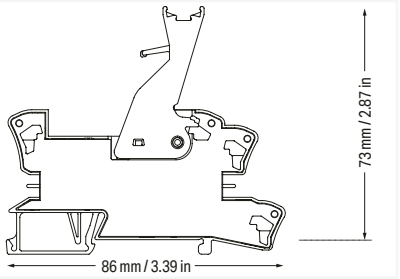


Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	±10 %
Nominal input current at U_N	34 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV
Basic relay	
WAGO Basic Relay	788-172

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

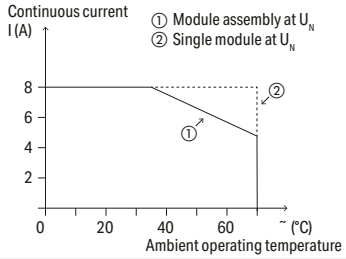


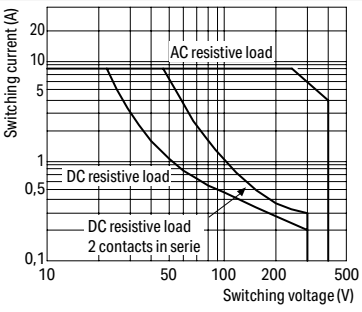
Item No.	PU
788-546	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

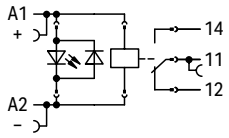
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



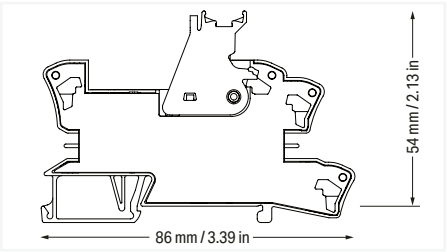


Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	±10 %
Nominal input current at U_N	32 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-946

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

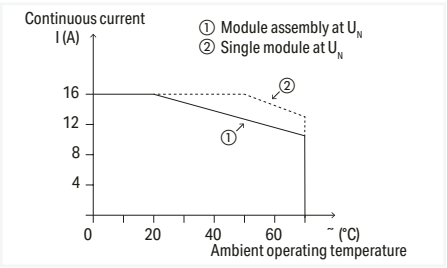


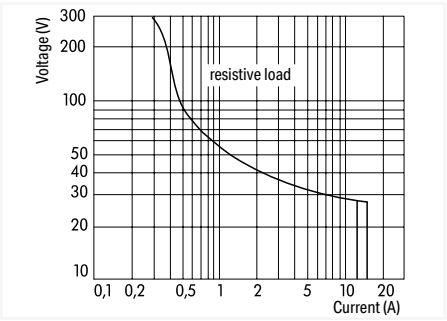
Item No.	PU
788-307	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

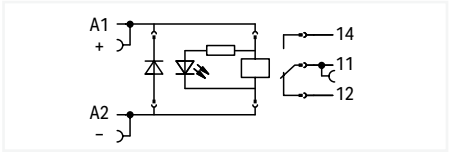
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



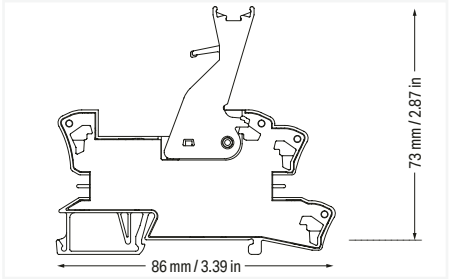


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 40 °C / 10 A)
Basic relay	
WAGO Basic Relay	788-166

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

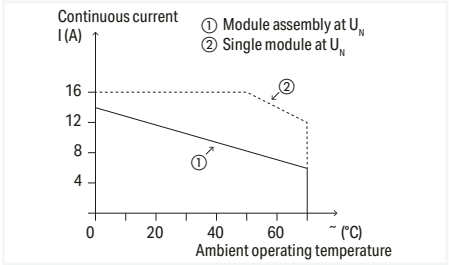


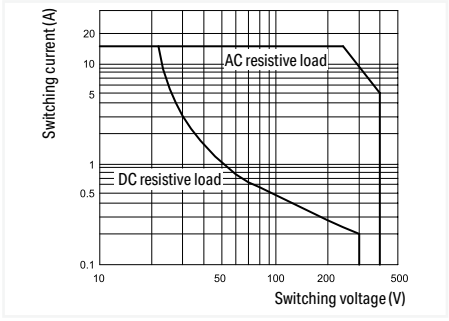
Item No.	PU
788-344	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

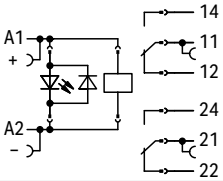
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



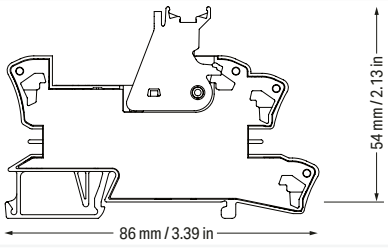


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

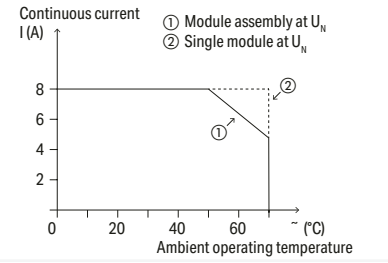


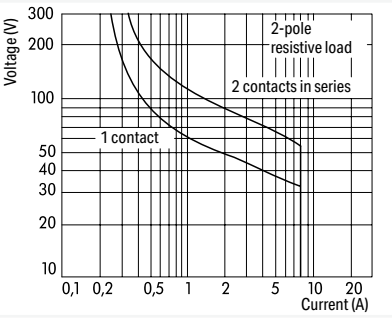
Item No.	PU
788-315	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

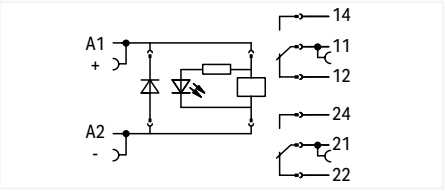
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



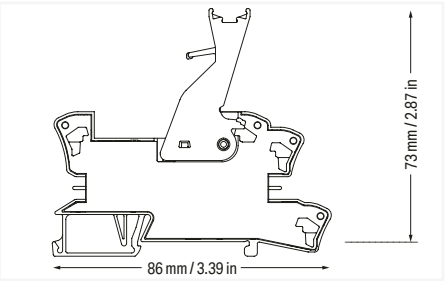


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	13 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 40 °C)
Basic relay	
WAGO Basic Relay	788-168

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

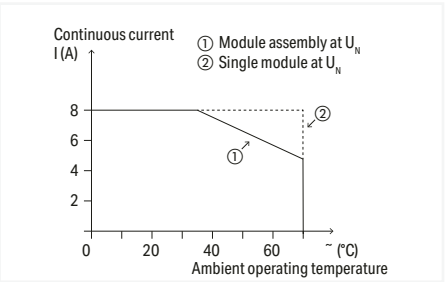


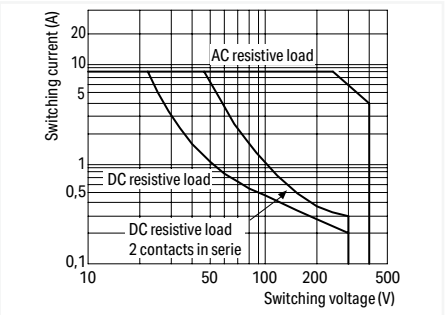
	Item No.	PU
	788-349	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

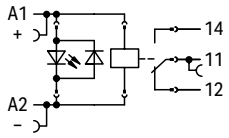
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



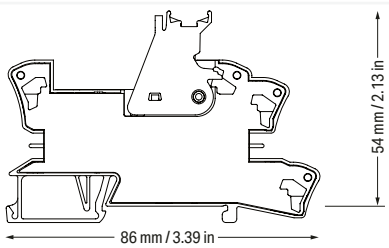


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508

Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

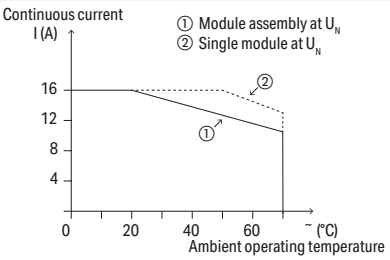


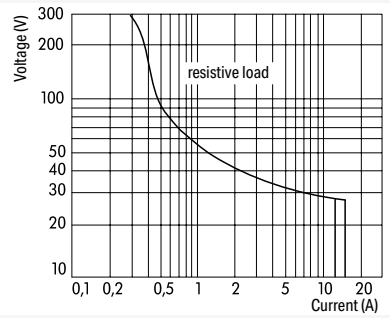
	Item No.	PU
	788-303	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

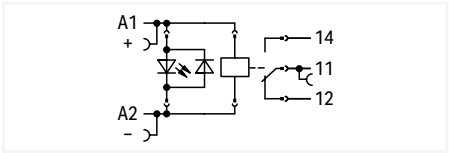
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



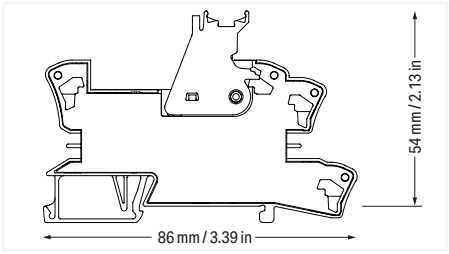


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	±10 %
Nominal input current at U_N	36 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-150

Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ For lamp loads ▶ Status indicator: Red LED ▶ Width: 15 mm

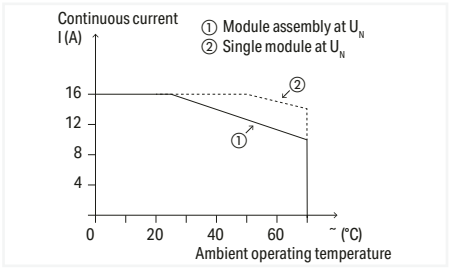


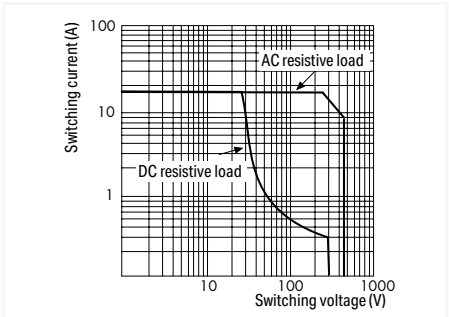
	Item No.	PU
	788-353	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

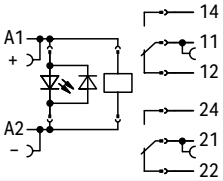
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



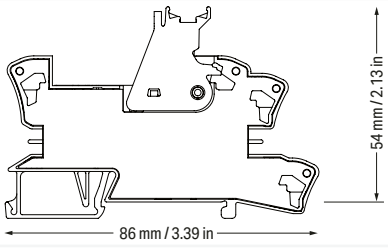


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	35 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Recommended minimum load	5 V / 100 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-196

Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

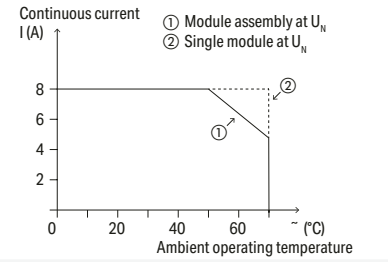


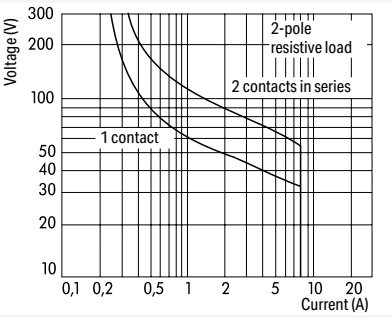
Item No.	PU
788-311	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

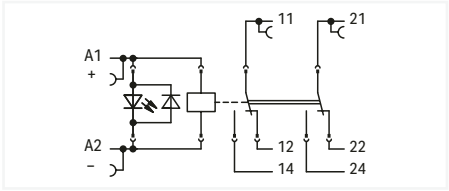
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



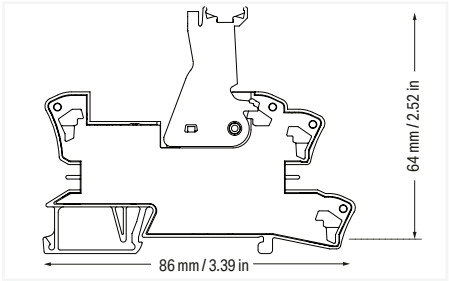


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	±10 %
Nominal input current at U_N	36 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	13 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-152

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 0.3 A ▶ Number of changeover/switchover contacts: 2 ▶ Force-guided contacts; Gold contacts ▶ Status indicator: Green LED ▶ Width: 15 mm

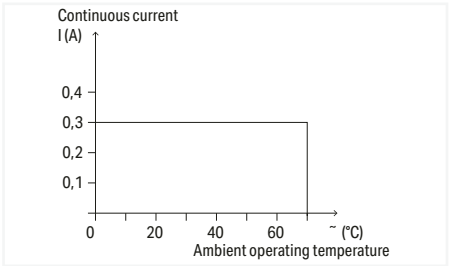


	Item No.	PU
	788-906	15



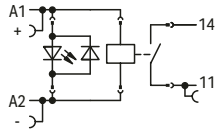
Safety Information
Per EN 61810-3, it is only permitted to use 1 make contact/1 break contact for safety circuits (11-14 and 22-21 or 12-11 and 21-24).
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

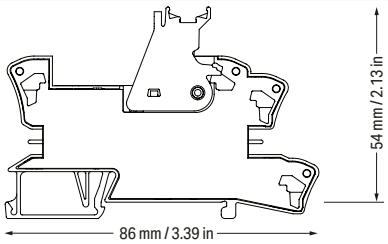


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	30 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	0.3 A
Switching Voltage, Max.	60 VAC
Switching power (resistive) max.	AC 18 VA
Recommended minimum load	0.1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	12 ms
Electrical life (NO; resistive load; 23 °C)	200 x 10^3 switching operations
Mechanical life	50 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 600 min^{-1}
Mechanical force-guided operation	Type A
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61810-3; UL 508 (max. 40 °C)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ For lamp loads ▶ Status indicator: Red LED ▶ Width: 15 mm

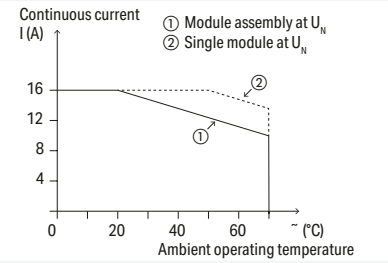


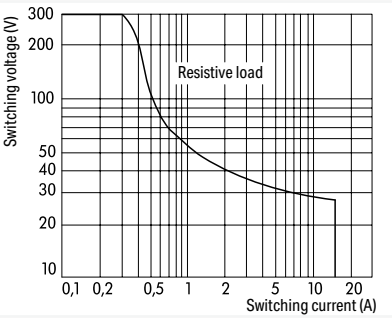
	Item No.	PU
	788-356	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

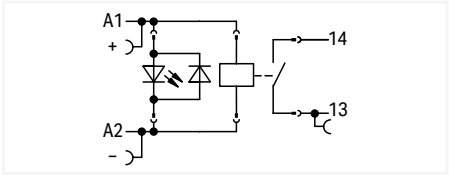
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



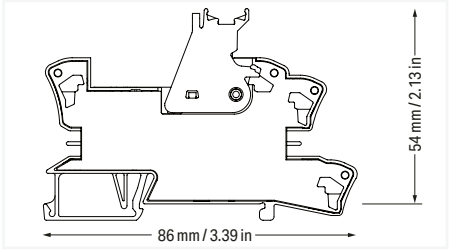


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 80 A / 0.02 s; (AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	9 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ For lamp loads; Tungsten pre-make contact ▶ Status indicator: Red LED ▶ Width: 15 mm

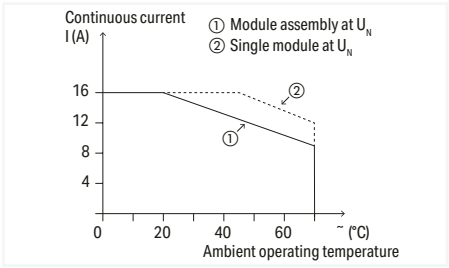


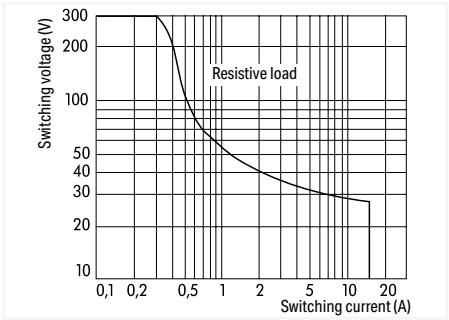
	Item No.	PU
	788-357	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

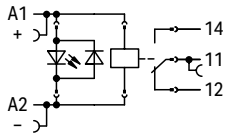
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



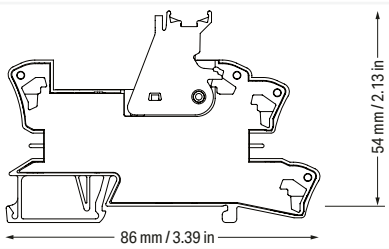


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-10 … +20 %
Nominal input current at U_N	17 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$, W pre-make contact
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 165 A / 0.02 s; (AC) 800 A / 0.0002 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	5 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	5 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.25 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373
Basic relay	
WAGO Basic Relay	788-910

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

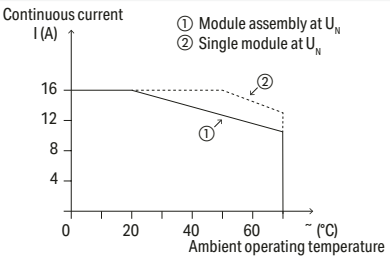


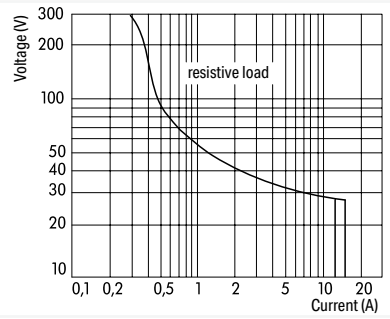
	Item No.	PU
	788-304	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

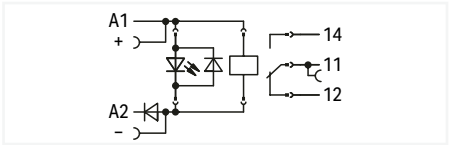
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



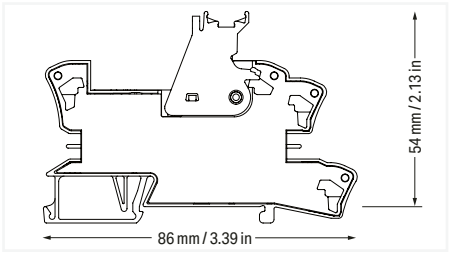


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-154

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

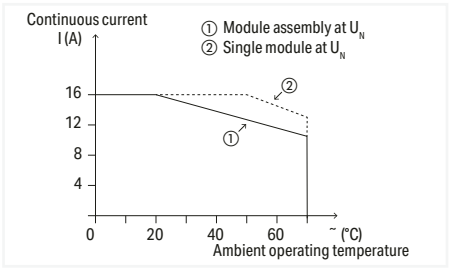


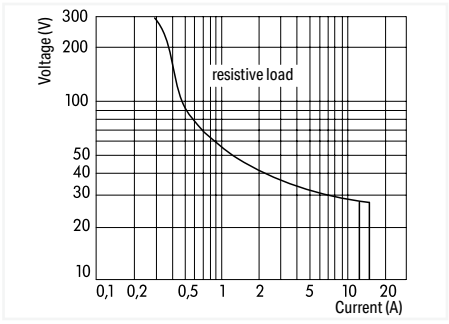
Item No.	PU
788-304/003-000	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

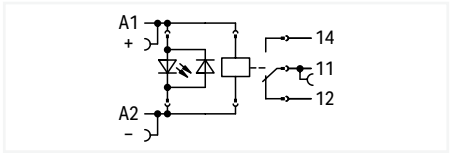
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



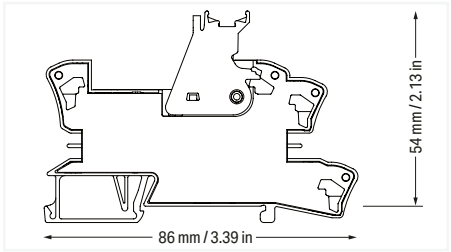


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-25 … +30 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A); DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ For lamp loads ▶ Status indicator: Red LED ▶ Width: 15 mm

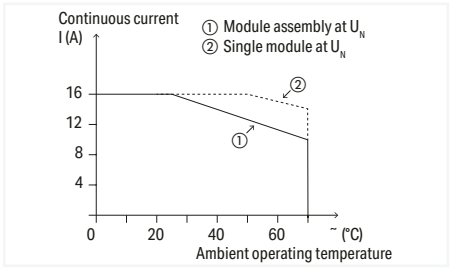


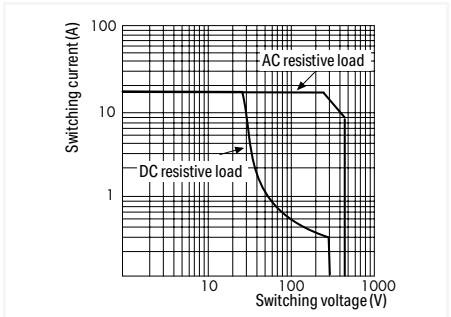
	Item No.	PU
	788-354	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

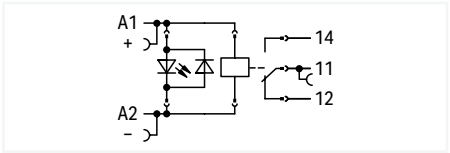
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



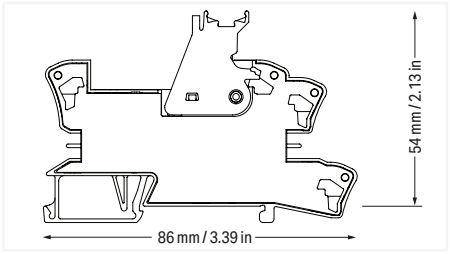


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Recommended minimum load	5 V / 100 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-195

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

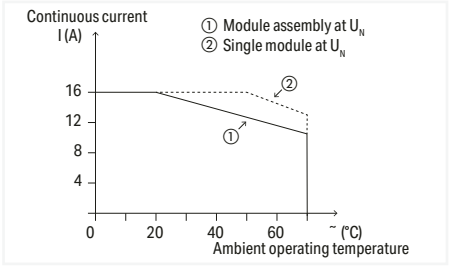


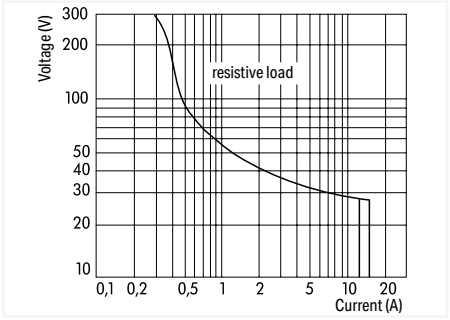
	Item No.	PU
	788-404	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

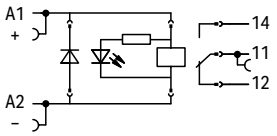




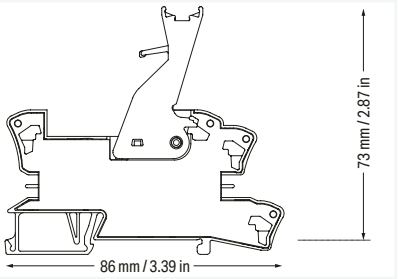
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	70 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	10 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-155

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

1

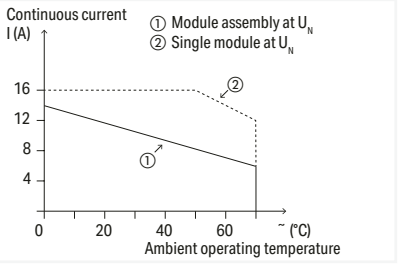


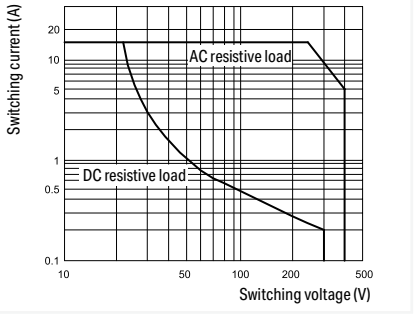
	Item No.	PU
	788-341	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

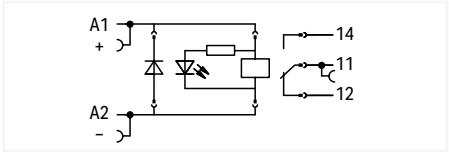
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



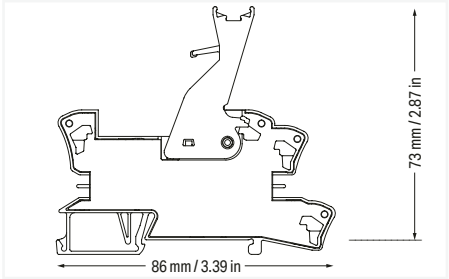


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-931

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation; For railway applications ▶ Status indicator: Red LED ▶ Width: 15 mm

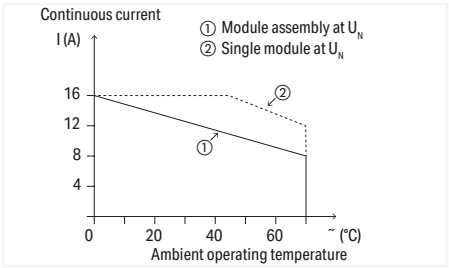


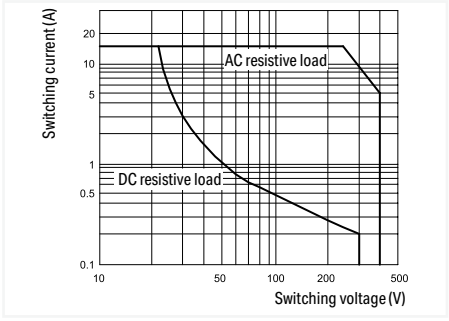
	Item No.	PU
	788-391	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

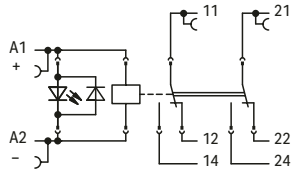
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



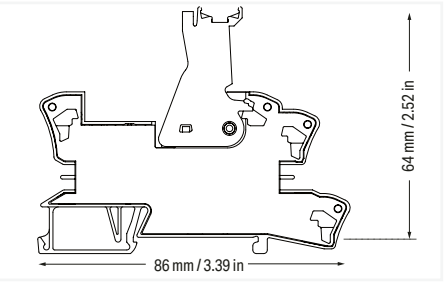


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	20 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 2 ▶ Force-guided contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

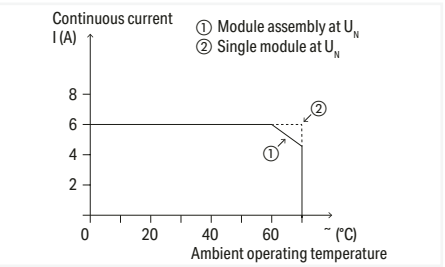


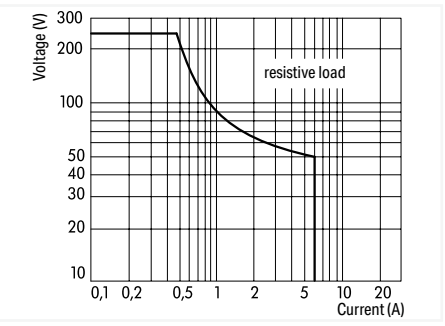
Item No.	PU
788-384	15



Safety Information
Per EN 61810-3, it is only permitted to use 1 make contact/1 break contact for safety circuits (11-14 and 22-21 or 12-11 and 21-24).
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

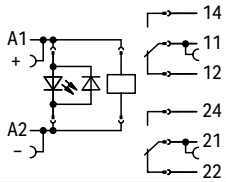
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



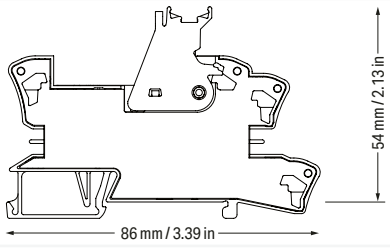


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	31 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 14 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 3 A / 24 VDC
Recommended minimum load	5 V / 10 mA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Mechanical force-guided operation	Type A
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	6 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	3 kVrms
B10d (AC 1)	250 V; 6 A; 1 NO: 600,000 switching operations; 250 V; 3 A; 1 NO: 900,000 switching operations; 250 V; 1.5 A; 1 NO: 1,800,000 switching operations
B10d (15 AAC)	250 V; 3 A; 1 NO: 180,000 switching operations; 250 V; 2 A; 1 NO: 560,000 switching operations; 250 V; 0.75 A; 1 NO: 4,600,000 switching operations
B10d (DC 13)	24 V; 3 A; 1 NO: 360,000 switching operations; 24 V; 1.5 A; 1 NO: 740,000 switching operations; 24 V; 0.75 A; 1 NO: 4,200,000 switching operations
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61810-3; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-902

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

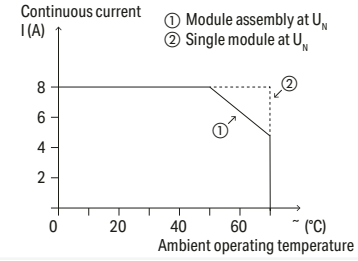


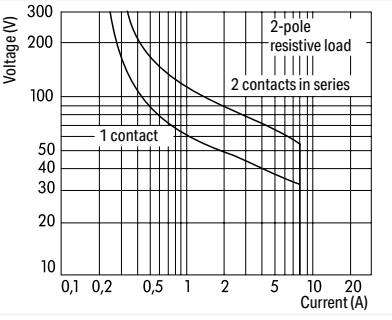
Item No.	PU
788-312	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

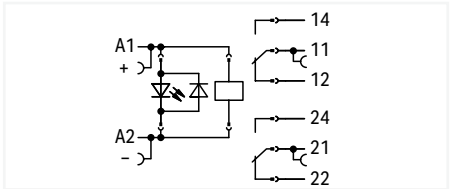
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



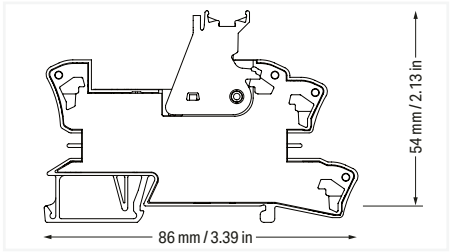


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	13 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-156

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 15 mm

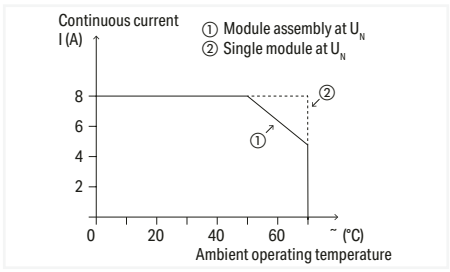


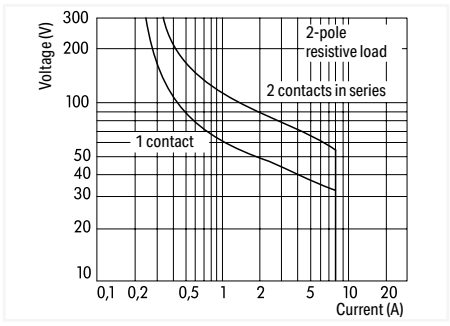
Item No.	PU
788-412	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

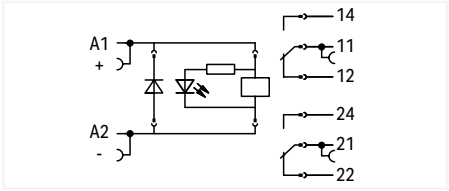
Note
Reinforced insulation between coil and contacts
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



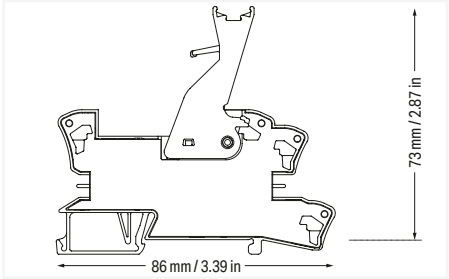


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	10 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-157

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

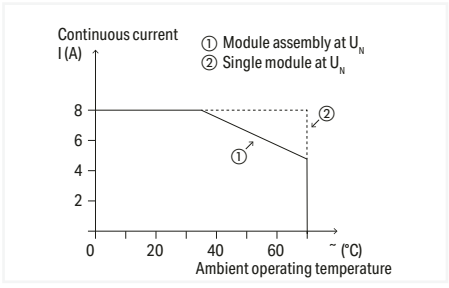


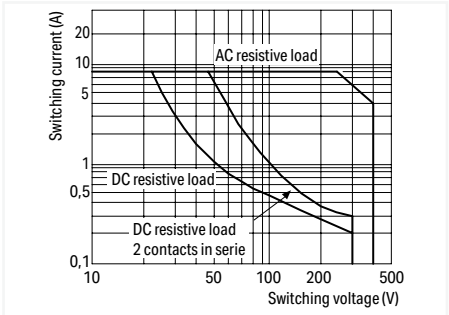
Item No.	PU
788-346	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

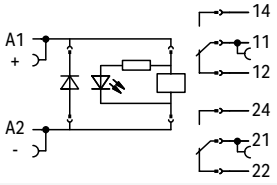




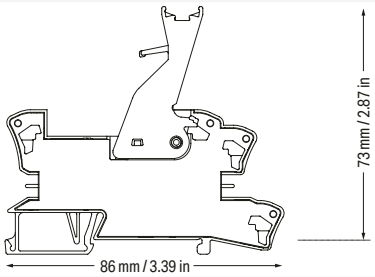
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-936

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation; For railway applications ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

1

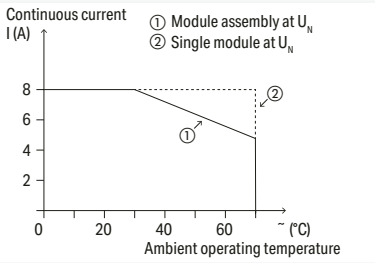


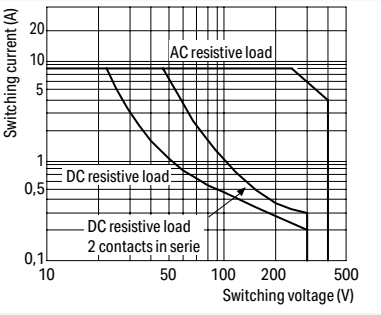
	Item No.	PU
	788-390	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

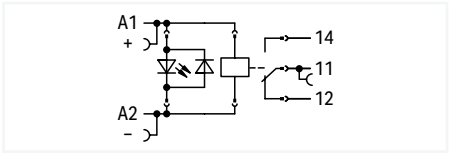
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



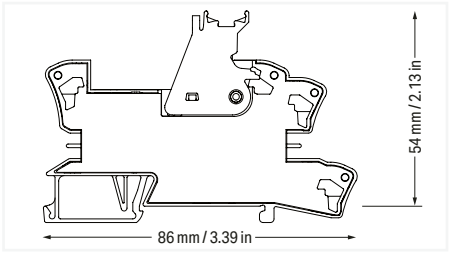


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	20 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373
Basic relay	
WAGO Basic Relay	788-929

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

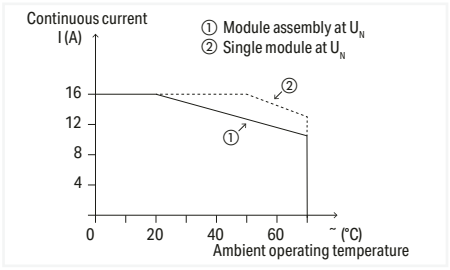


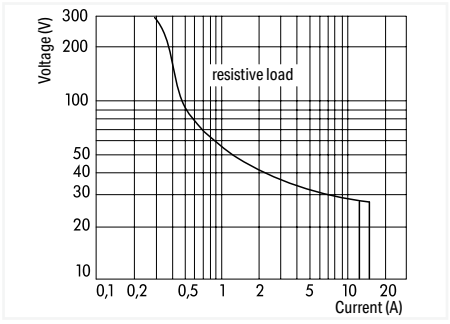
	Item No.	PU
	788-305	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

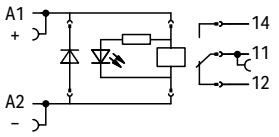




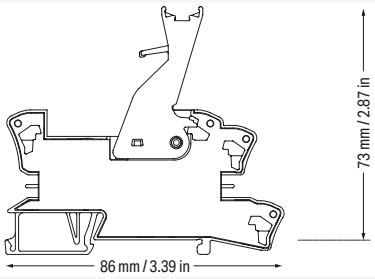
Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	±10 %
Nominal input current at U_N	11 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-158

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

1

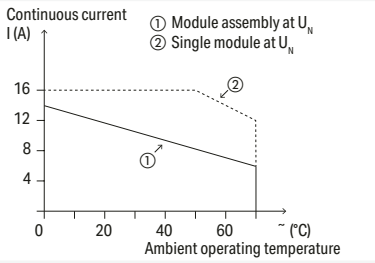


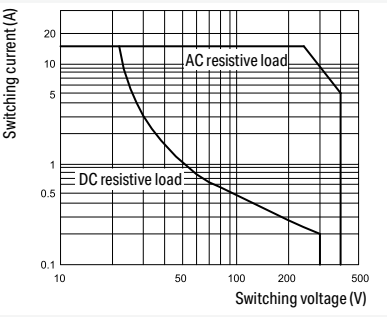
Item No.	PU
788-342	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

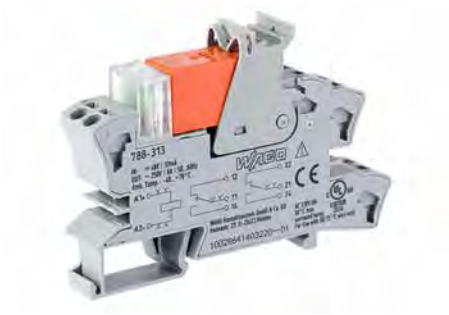
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

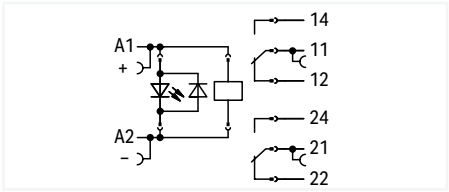




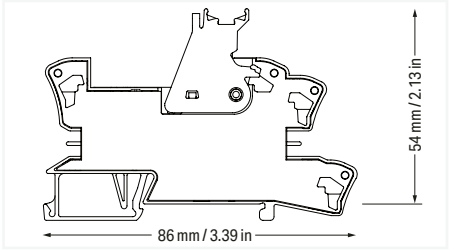
Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	±10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 32 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm



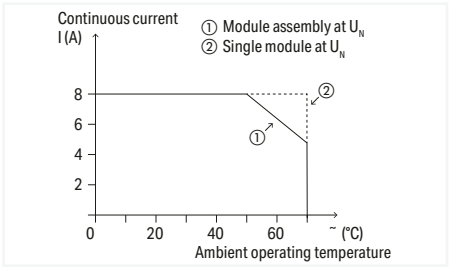


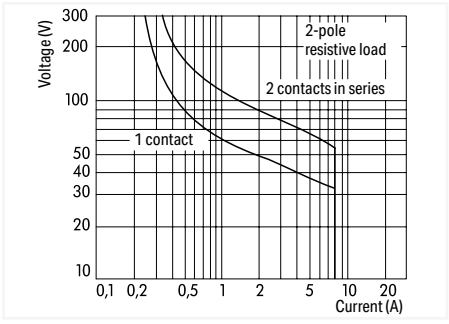
Item No.	PU
788-313	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

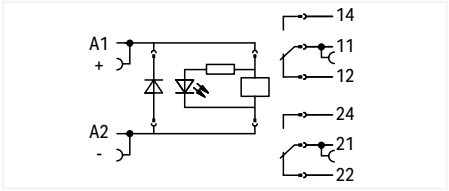
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



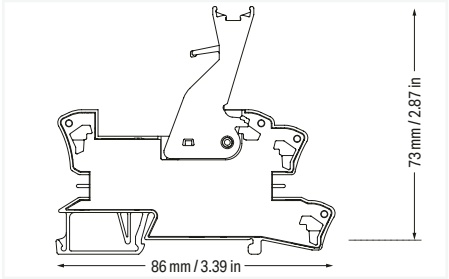


Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	±10 %
Nominal input current at U_N	11 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	13 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-160

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 15 mm

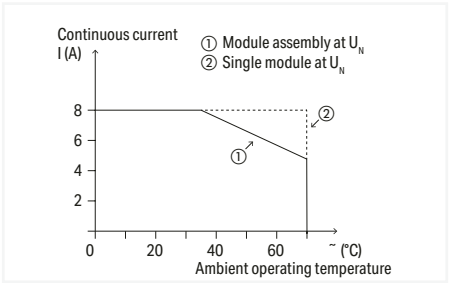


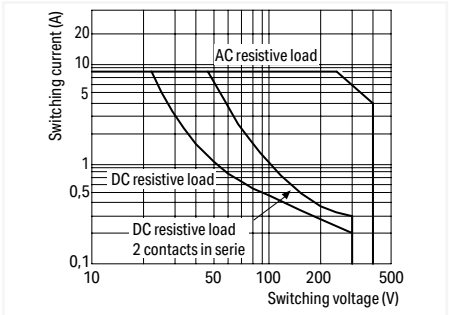
Item No.	PU
788-347	15



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

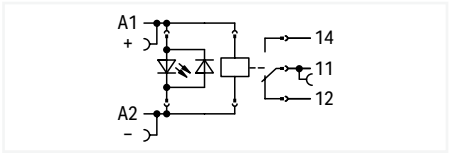
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



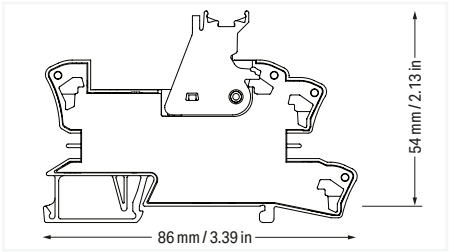


Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	±10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508

Relay module ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

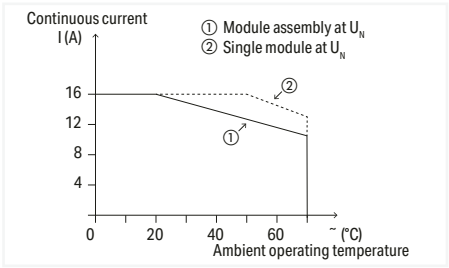


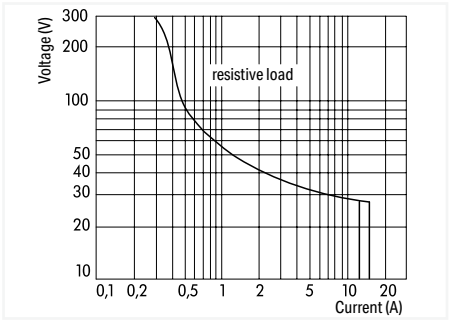
	Item No.	PU
	788-306	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

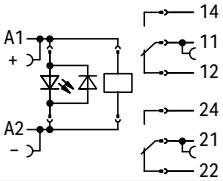
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



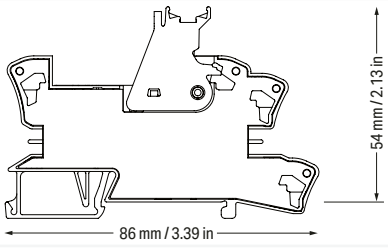


Control circuit	
Nominal input voltage U_N	60 VDC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 10 A)
Basic relay	
WAGO Basic Relay	788-162

Relay module ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 15 mm

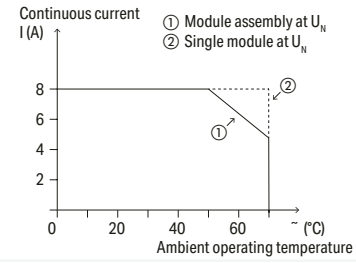


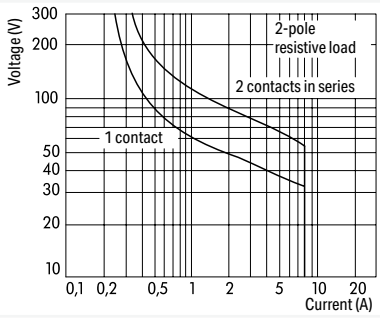
Item No.	PU
788-314	20



Safety Information
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

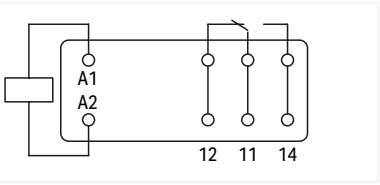
Note
Reinforced insulation between coil and contacts
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





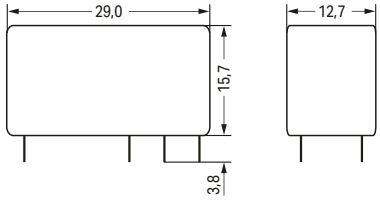
Control circuit	
Nominal input voltage U_N	60 VDC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	13 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	788-164

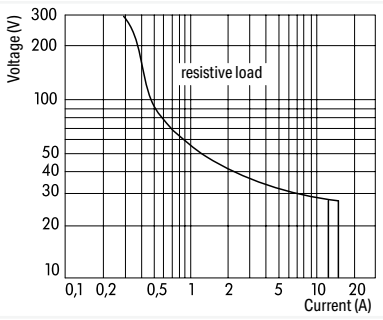
Basic relay ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-174	20

Dimensions in mm

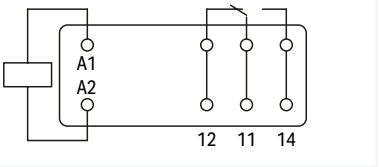




Control circuit	
Nominal input voltage U_N	115 VAC
Nominal input current at U_N	15 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

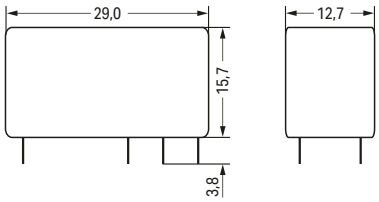
Basic relay ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Width: 12.7 mm

Similar to illustration

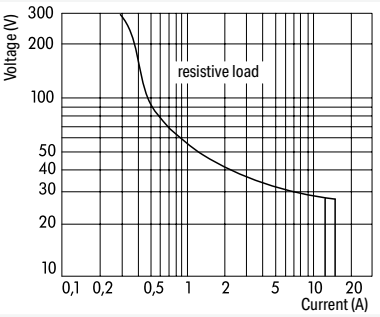


Item No.	PU
788-175	20

Dimensions in mm

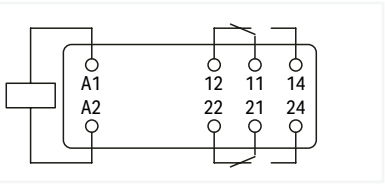


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



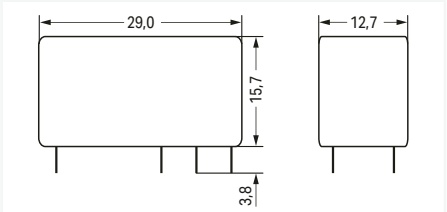
Control circuit	
Nominal input voltage U_N	115 VAC
Nominal input current at U_N	12 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

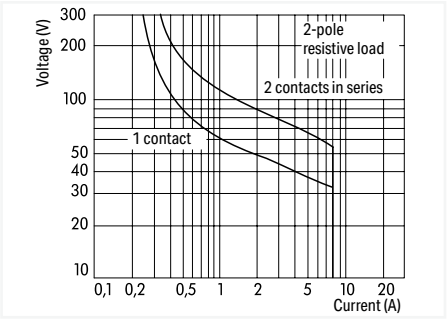
Basic relay ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



	Item No.	PU
	788-176	20

Dimensions in mm

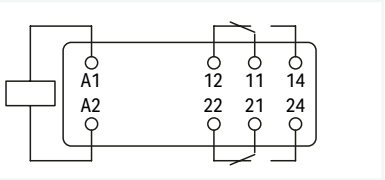




Control circuit	
Nominal input voltage U_N	115 VAC
Nominal input current at U_N	15 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

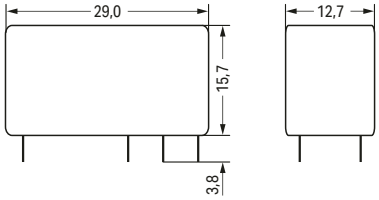
Basic relay ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Width: 12.7 mm

Similar to illustration

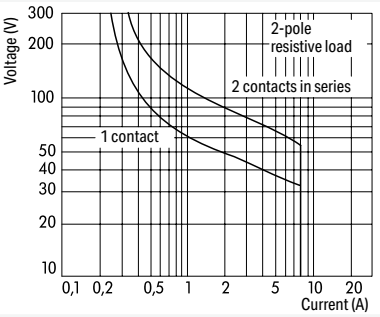


	Item No.	PU
	788-177	20

Dimensions in mm

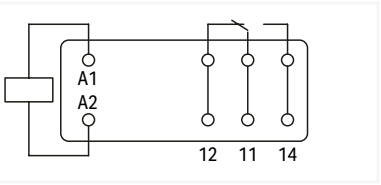


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



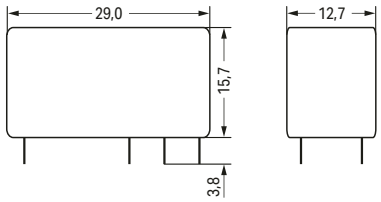
Control circuit	
Nominal input voltage U_N	115 VAC
Nominal input current at U_N	12 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

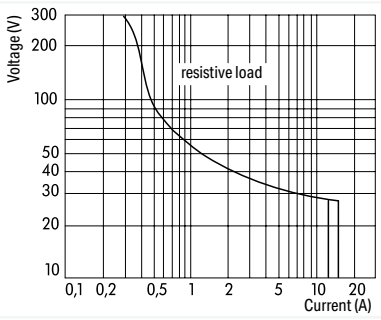
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-178	20

Dimensions in mm

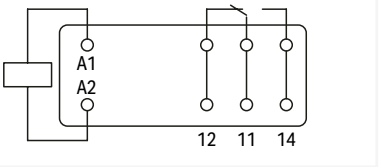




Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

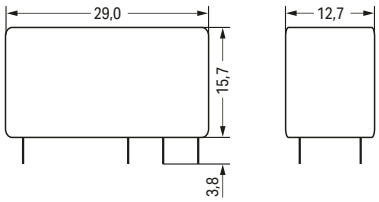
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Width: 12.7 mm

Similar to illustration

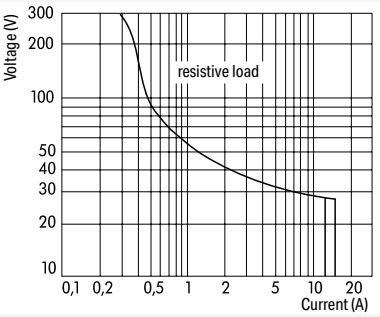


Item No.	PU
788-179	20

Dimensions in mm

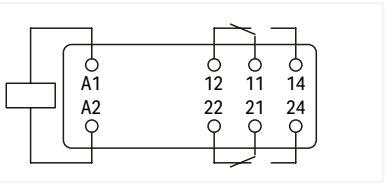


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



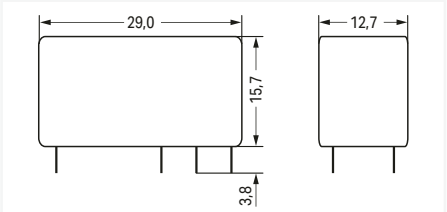
Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	6 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

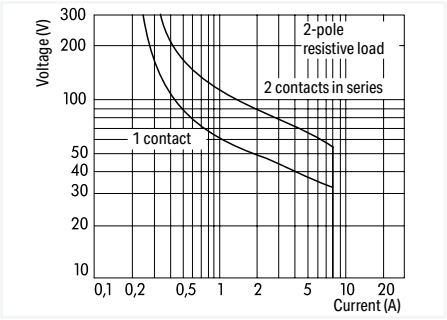
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



	Item No.	PU
	788-180	20

Dimensions in mm

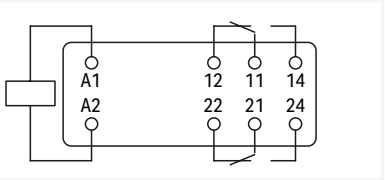




Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

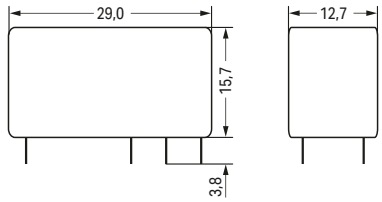
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Width: 12.7 mm

Similar to illustration

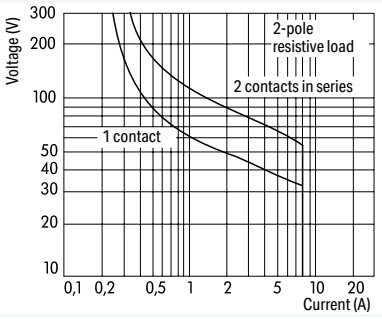


Item No.	PU
788-181	20

Dimensions in mm



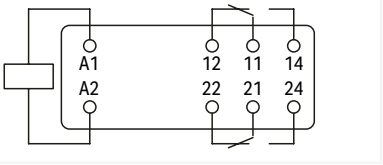
Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	6 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

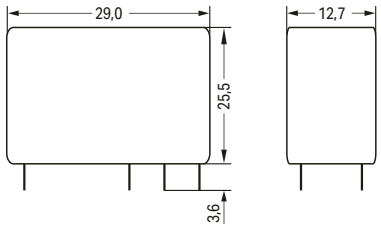
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Width: 12.7 mm

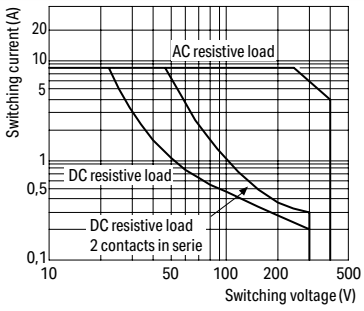
Similar to illustration



Item No.	PU
788-949	8

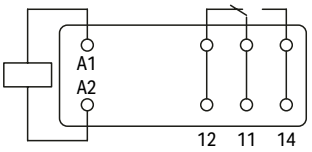
Dimensions in mm





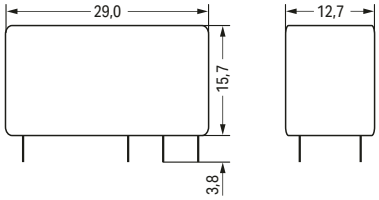
Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	3.2 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 12 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 25.5 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

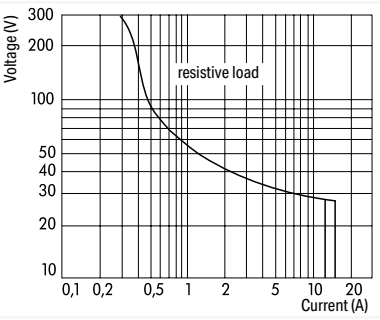
Basic relay ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-170	20

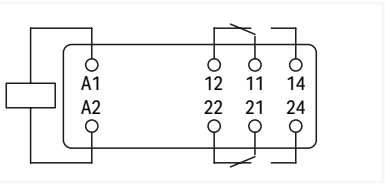
Dimensions in mm





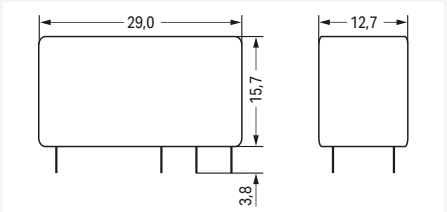
Control circuit	
Nominal input voltage U_N	24 VAC
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

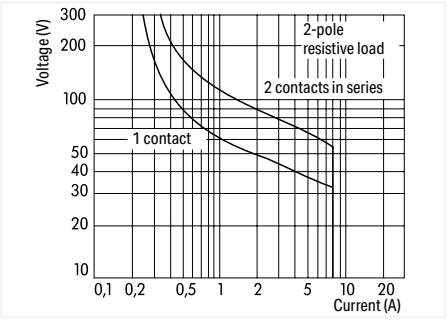
Basic relay ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



	Item No.	PU
	788-172	20

Dimensions in mm

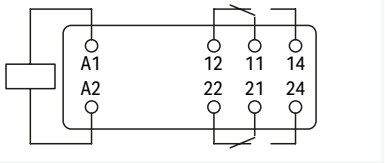




Control circuit	
Nominal input voltage U_N	24 VAC
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

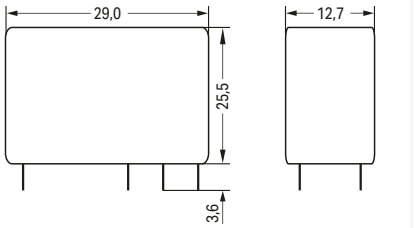
Basic relay ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Width: 12.7 mm

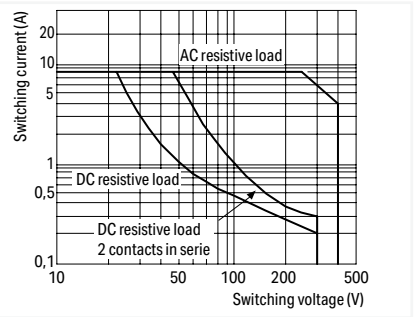
Similar to illustration



Item No.	PU
788-946	8

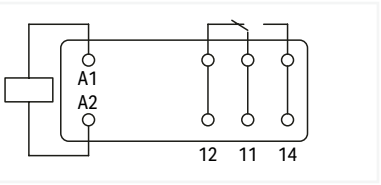
Dimensions in mm





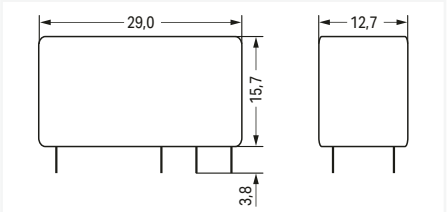
Control circuit	
Nominal input voltage U_N	24 VAC
Nominal input current at U_N	31.6 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 12 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 25.5 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

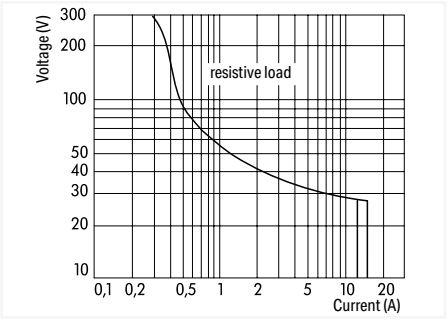
Basic relay ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-166	20

Dimensions in mm

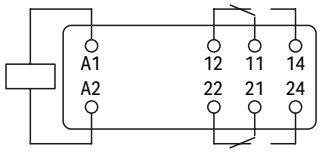




Control circuit	
Nominal input voltage U_N	110 VDC
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

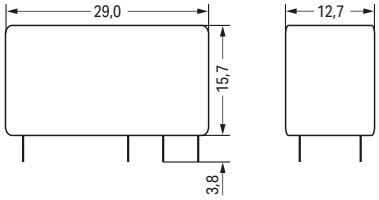
Basic relay ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm

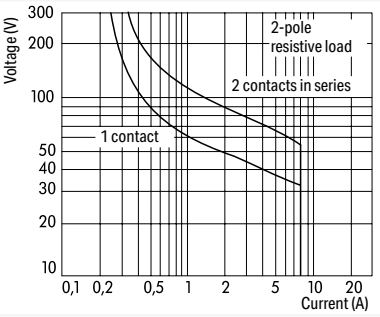
Similar to illustration



Item No.	PU
788-168	20

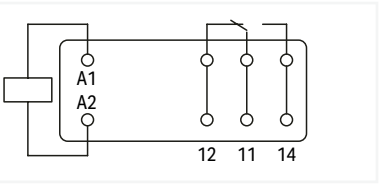
Dimensions in mm





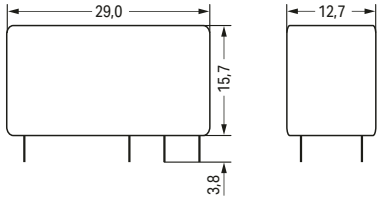
Control circuit	
Nominal input voltage U_N	110 VDC
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

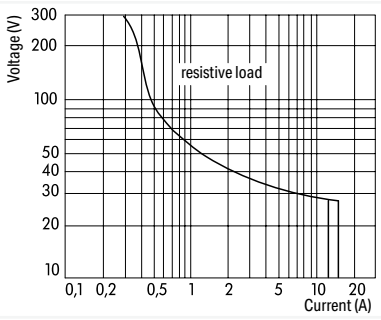
Basic relay ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-150	20

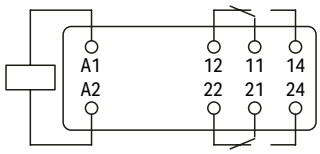
Dimensions in mm





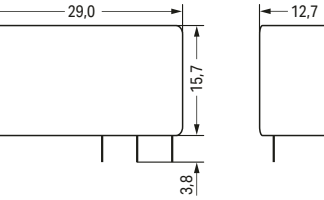
Control circuit	
Nominal input voltage U_N	12 VDC
Nominal input current at U_N	34 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

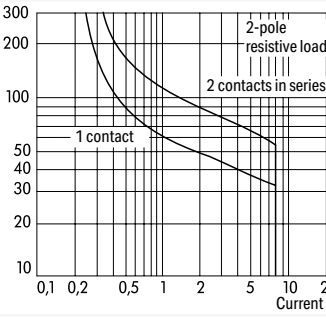
Basic relay ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



	Item No.	PU
	788-152	20

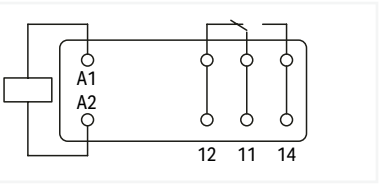
Dimensions in mm





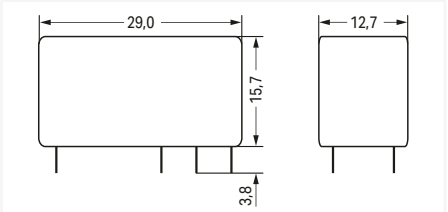
Control circuit	
Nominal input voltage U_N	12 VDC
Nominal input current at U_N	34 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

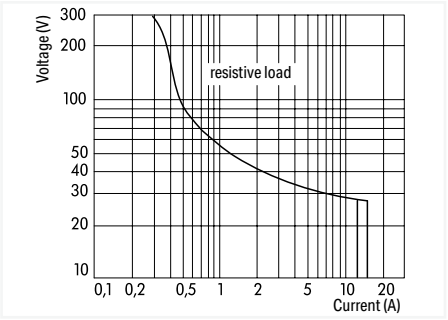
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-154	20

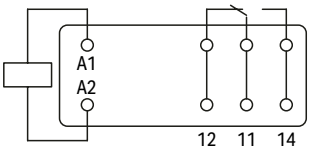
Dimensions in mm





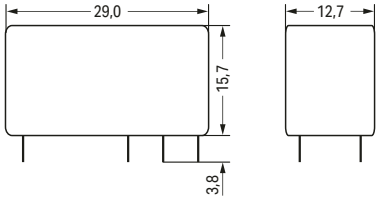
Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Width: 12.7 mm

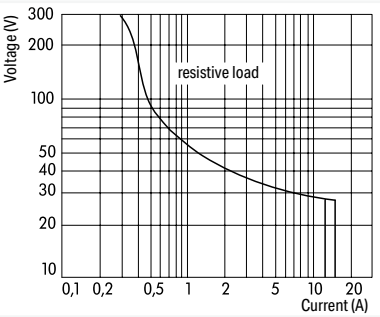


Item No.	PU
788-155	20

Dimensions in mm



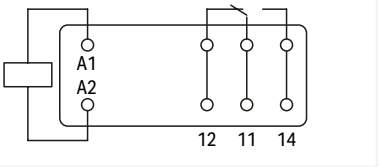
Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	16 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

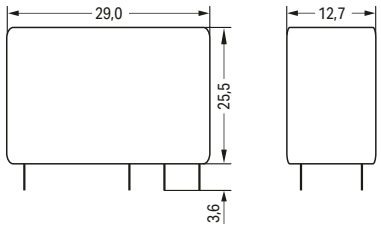
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Width: 12.7 mm

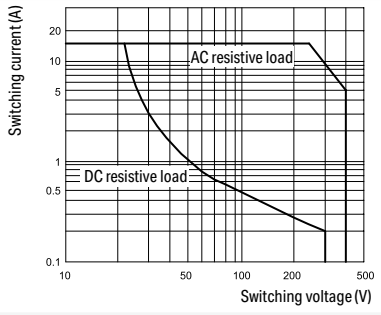
Similar to illustration



	Item No.	PU
	788-931	8

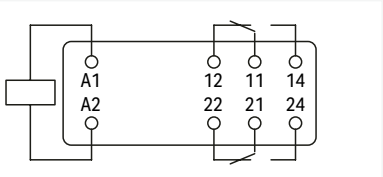
Dimensions in mm





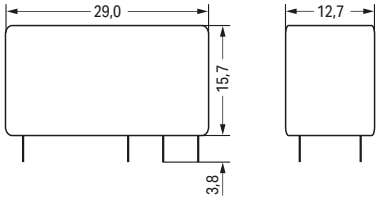
Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	16.7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 24 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 25.5 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

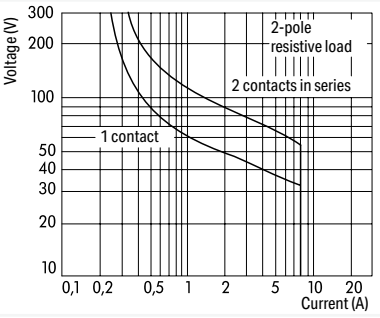
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



Item No.	PU
788-156	20

Dimensions in mm

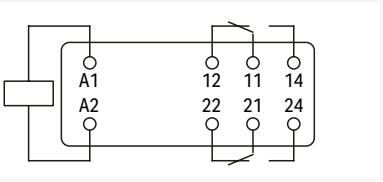




Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

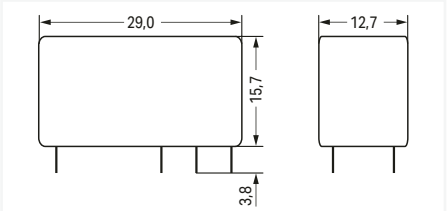
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Gold contacts ▶ Width: 12.7 mm

Similar to illustration

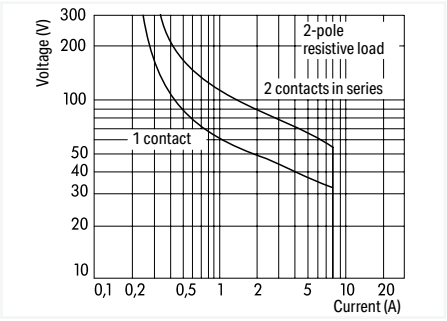


	Item No.	PU
	788-157	20

Dimensions in mm



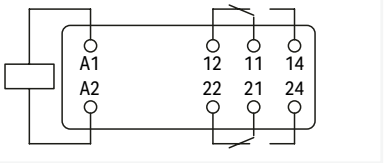
Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

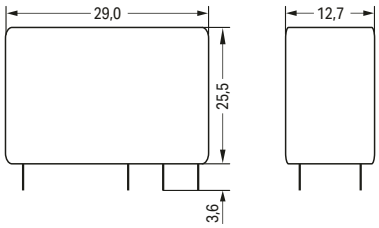
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Width: 12.7 mm

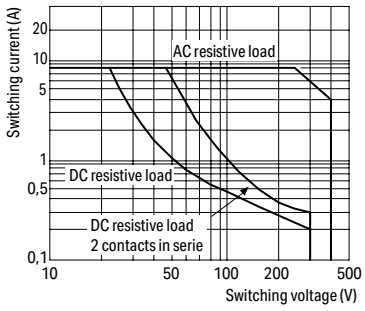
Similar to illustration



Item No.	PU
788-936	8

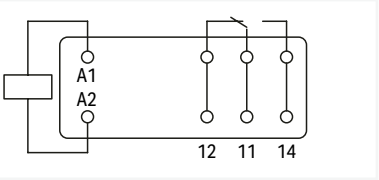
Dimensions in mm





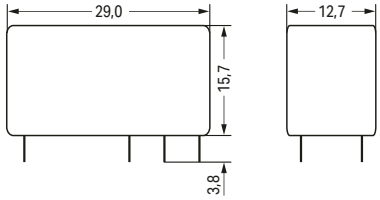
Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	16.7 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 12 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 1 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 300 min^{-1}
Signaling	
Status indicator	Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 25.5 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

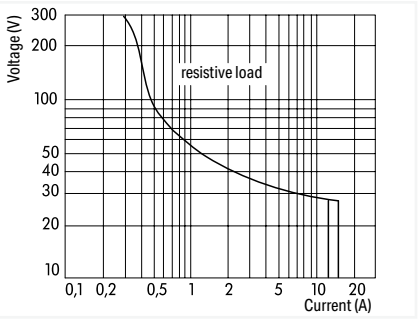
Basic relay ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-158	20

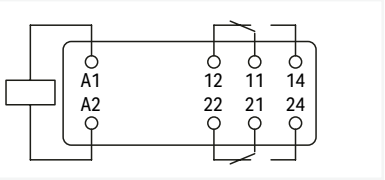
Dimensions in mm





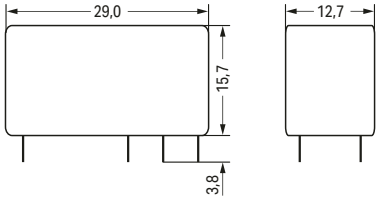
Control circuit	
Nominal input voltage U_N	48 VDC
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

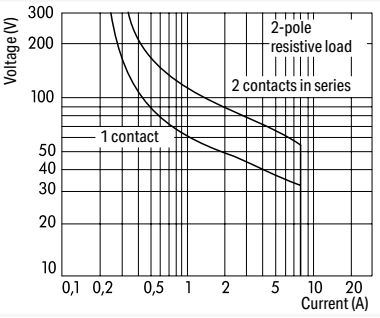
Basic relay ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



Item No.	PU
788-160	20

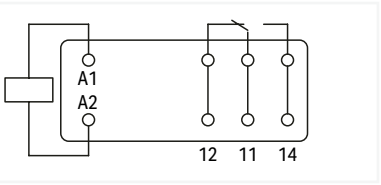
Dimensions in mm





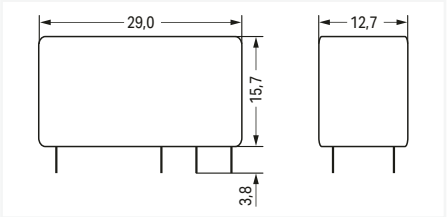
Control circuit	
Nominal input voltage U_N	48 VDC
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

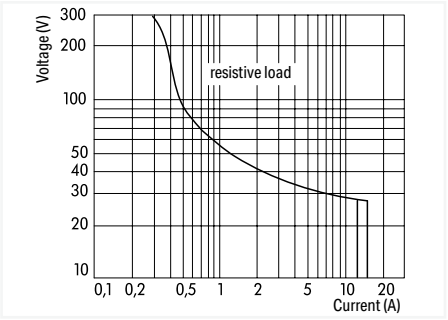
Basic relay ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 12.7 mm



	Item No.	PU
	788-162	20

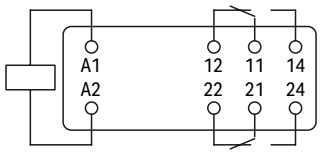
Dimensions in mm





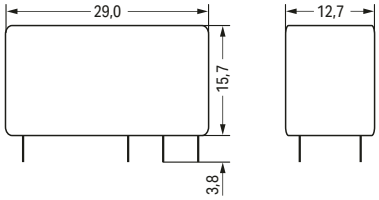
Control circuit	
Nominal input voltage U_N	60 VDC
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	30 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

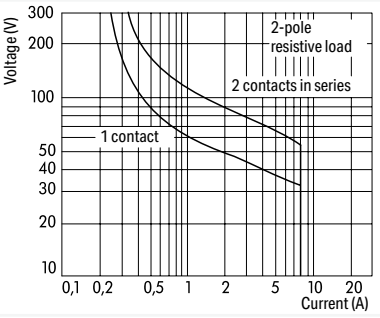
Basic relay ▶ Nominal input voltage U_N: 60 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 12.7 mm



Item No.	PU
788-164	20

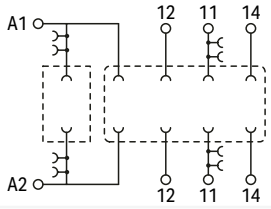
Dimensions in mm



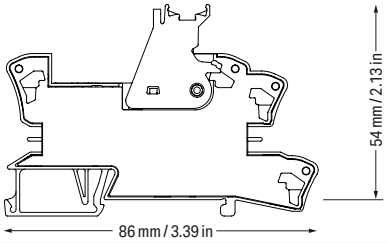


Control circuit	
Nominal input voltage U_N	60 VDC
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	10 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 1200 min^{-1}
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Ambient temperature (operation at U_N)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

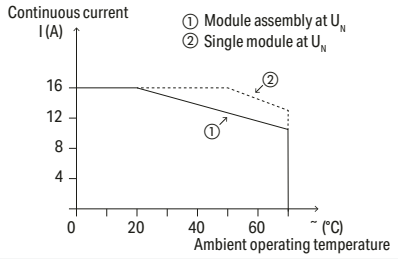
Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 15 mm



	Item No.	PU
	788-100	20

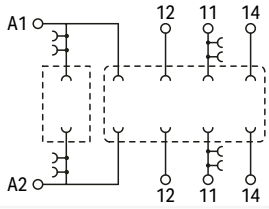


Note
The specified technical data are maximum values. They may be limited by the accessories used.

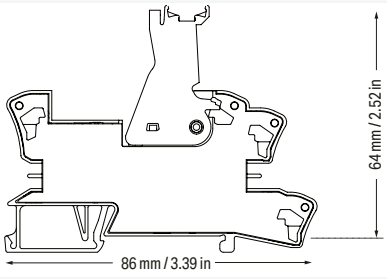


Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	1
Limiting continuous current	16 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

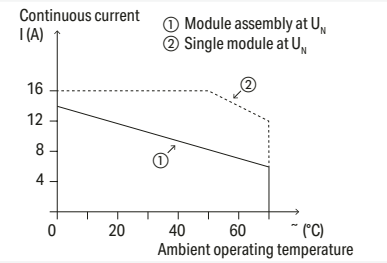
Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 15 mm



Item No.	PU
788-101	15



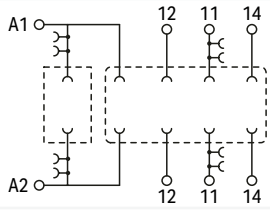
Note
The specified technical data are maximum values. They may be limited by the accessories used.



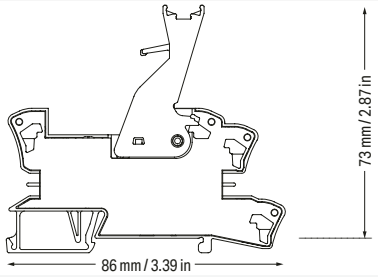
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	1
Limiting continuous current	16 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 15 mm

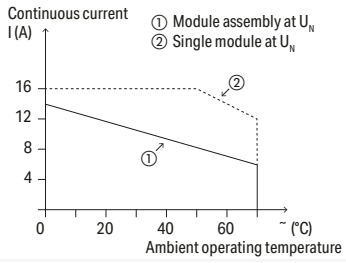
Similar to illustration



	Item No.	PU
	788-108	15



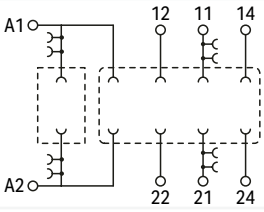
Note
The specified technical data are maximum values. They may be limited by the accessories used.



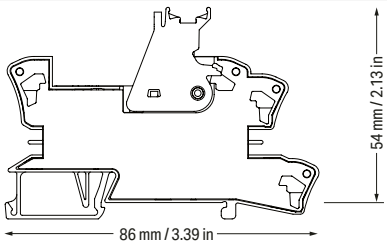
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	1
Limiting continuous current	16 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 15 mm

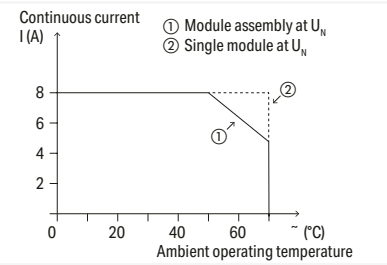
Similar to illustration



Item No.	PU
788-102	20



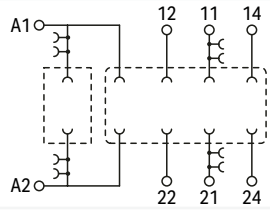
Note
The specified technical data are maximum values. They may be limited by the accessories used.



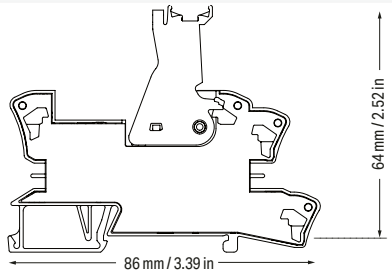
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	2
Limiting continuous current	8 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 15 mm

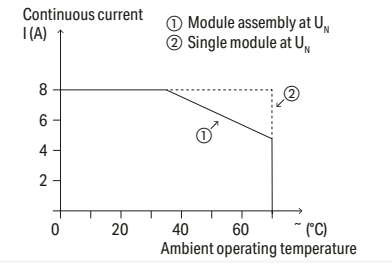
Similar to illustration



	Item No.	PU
	788-103	15



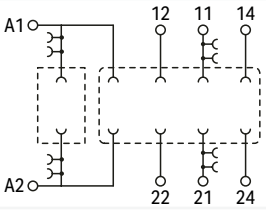
Note
The specified technical data are maximum values. They may be limited by the accessories used.



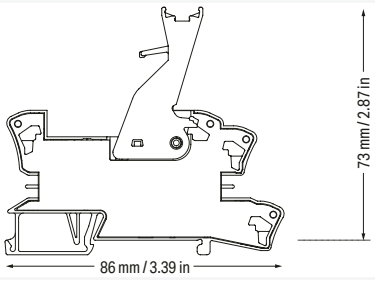
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	2
Limiting continuous current	8 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 15 mm

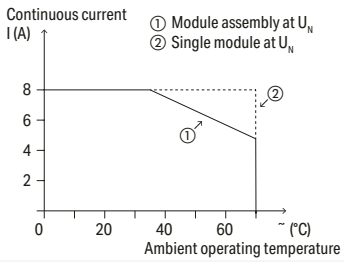
Similar to illustration



	Item No.	PU
	788-109	15



Note
The specified technical data are maximum values. They may be limited by the accessories used.



Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	2
Limiting continuous current	8 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 73 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Accessories for relay modules; Operation status indicator: red

U_N	I_N	Item No.	PU
24 VDC	2.4 mA	**788-120**	50 (2 x 25)
48 VDC	1.9 mA	**788-121**	50 (2 x 25)
110 VDC	1.9 mA	**788-122**	50 (2 x 25)
24 VAC	2.1 mA	**788-123**	50 (2 x 25)
115 VAC	1.7 mA	**788-124**	50 (2 x 25)
230 VAC	1.6 mA	**788-125**	50 (2 x 25)

Twin ferrule; Sleeve for 2 x 1 mm² / 2 x 18 AWG; red, insulated; 12 mm long

Color	Item No.	PU
red	**216-542**	500

Comb-style jumper bar; insulated; 18 A

Description	Item No.	PU
2-way	**788-113**	200 (8 x 25)
3-way	**788-114**	100 (4 x 25)
4-way	**788-115**	100 (4 x 25)
6-way	**788-116**	100 (4 x 25)
8-way	**788-117**	100 (4 x 25)
from 1 to 3	**788-118**	100 (4 x 25)

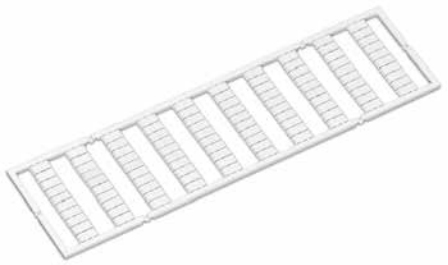
Push-in type jumper bar; light gray; insulated; 18 A

Description	Item No.	PU
2-way	**859-402**	200 (8 x 25)

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	Item No.	PU
	210-720	50

Accessories



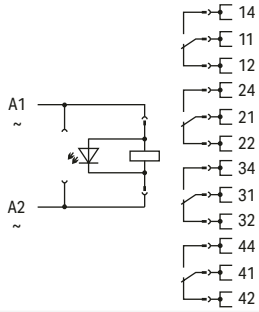
WMB marker card; 10 strips with 10 markers; white; with black printing		
Marking	Item No.	PU
plain	793-501	5 cards
1 ...10 (10 x)	793-502	5 cards
11 ... 20 (10 x)	793-503	5 cards
21 ... 30 (10 x)	793-504	5 cards
31 ... 40 (10 x)	793-505	5 cards
41 ... 50 (10 x)	793-506	5 cards
1 ... 50 (2 x)	793-566	5 cards

WMB marker card; 10 strips with 10 markers; white; with black printing		
Marking	Item No.	PU
plain	2009-115	1

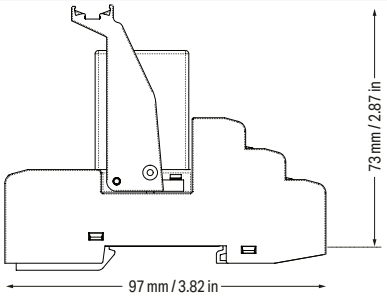
Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

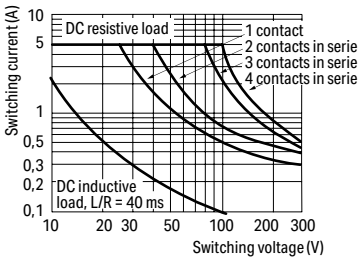
1

Similar to illustration



Item No.	PU
858-507	5

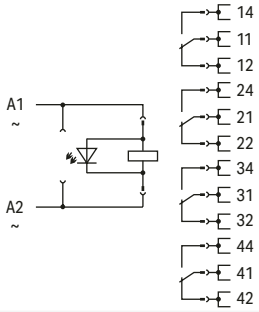




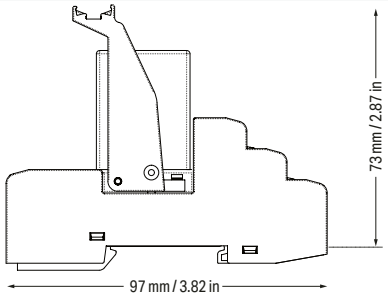
Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-158

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

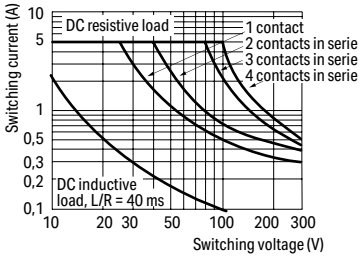
Similar to illustration



Item No.	PU
858-517	5

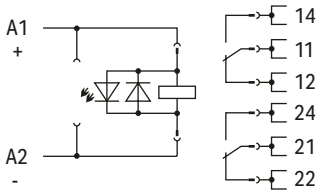


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.

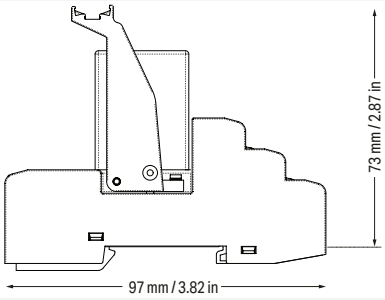


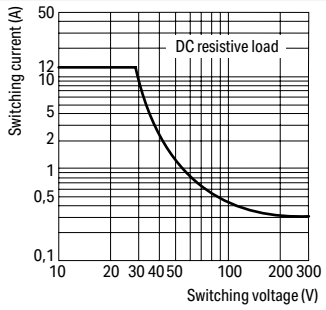
Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



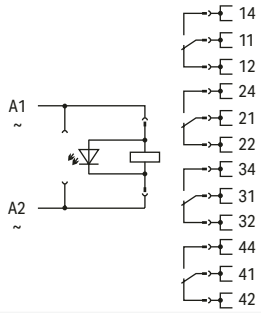
Item No.	PU
858-528	5



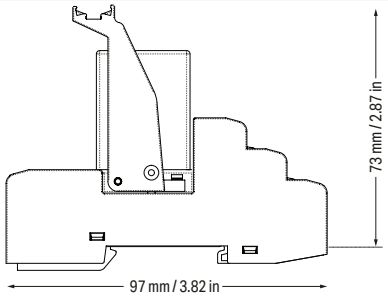


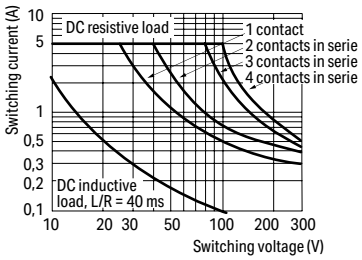
Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	11 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 0.1 A / 250 VDC
Recommended minimum load	10 V / 5 mA / 300 mW
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	8 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Switching frequency with/without load (max.)	20 min^{-1} / 200 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +55 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; UL 508
Basic relay	
WAGO Basic Relay	858-189

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



Item No.	PU
858-508	5



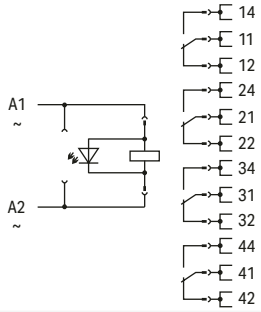


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C); DNV
Basic relay	
WAGO Basic Relay	858-151

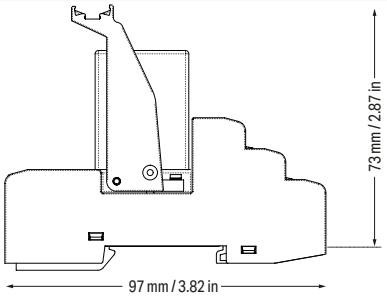
Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

1

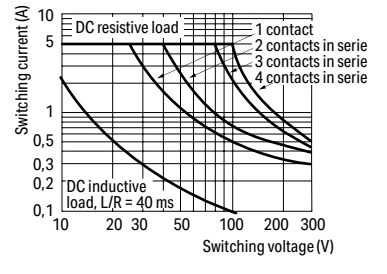
Similar to illustration



Item No.	PU
858-518	5

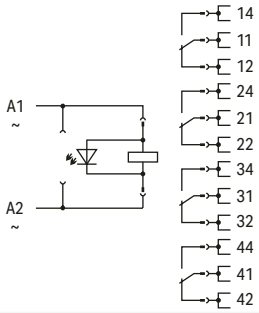


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.

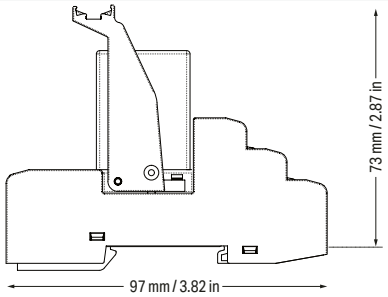


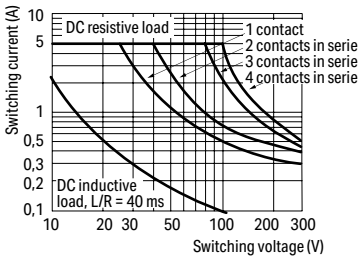
Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C); DNV
Basic relay	
WAGO Basic Relay	858-153

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



	Item No.	PU
	858-504	5

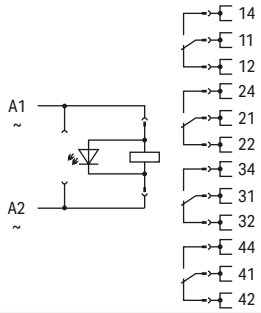




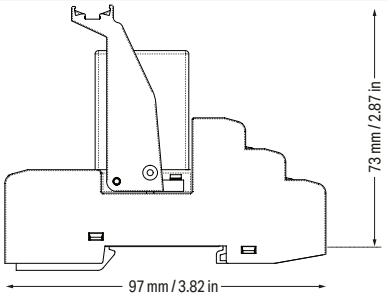
Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	50 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-154

Relay module ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

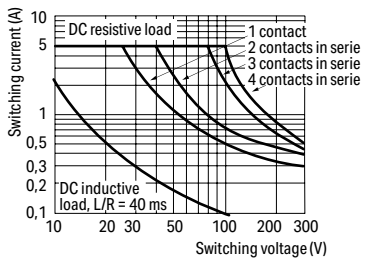
1



Item No.	PU
858-514	5



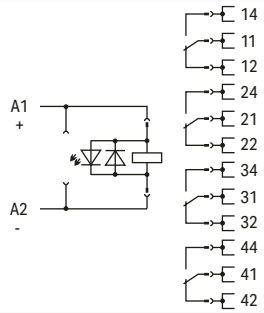
Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



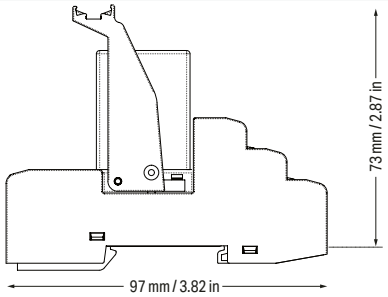
Control circuit	
Nominal input voltage U_N	24 VAC
Input voltage range	-20 … +10 %
Nominal input current at U_N	50 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	35 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)

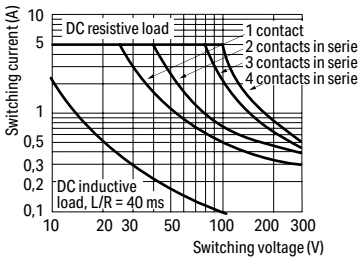
Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

Similar to illustration



Item No.	PU
858-307	5



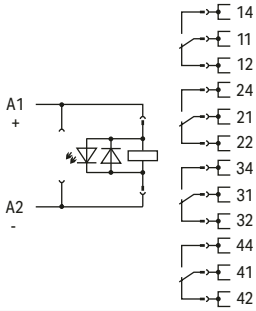


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-162

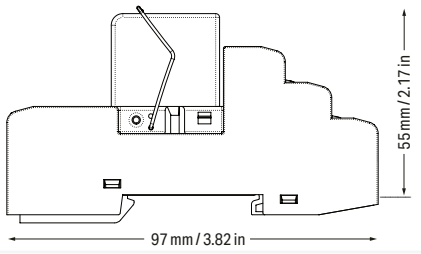
Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

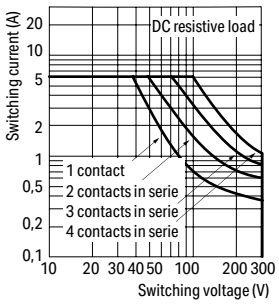
1

Similar to illustration



Item No.	PU
858-392	5

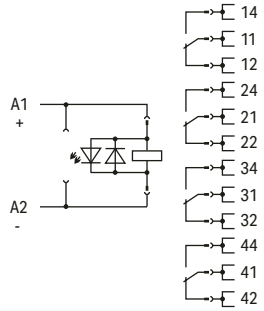




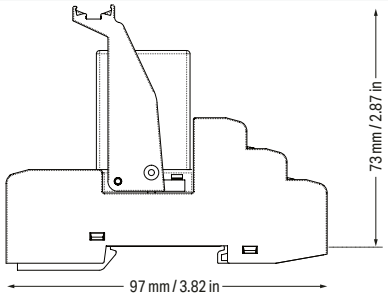
Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	-10 … +30 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 12 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	18 ms
Bounce time (typ.)	8 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.2 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 55 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373

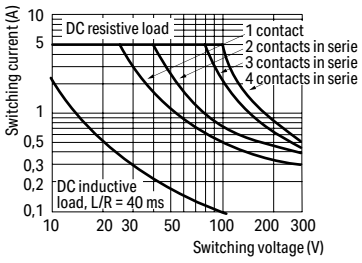
Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

Similar to illustration



Item No.	PU
858-303	5



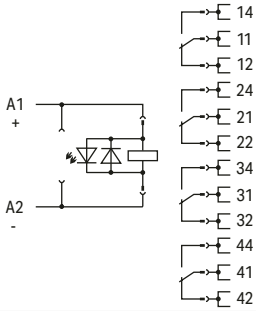


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	75 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-164

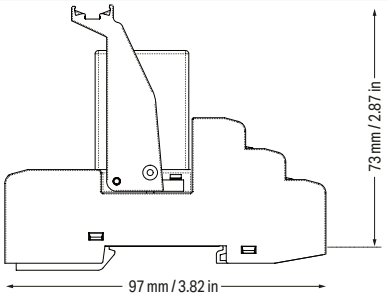
Relay module ▶ Nominal input voltage U_N: 220 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

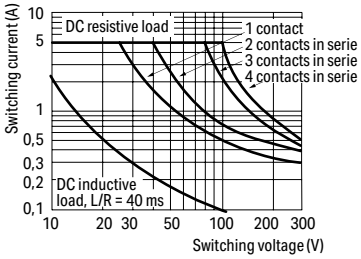
1

Similar to illustration



Item No.	PU
858-308	5

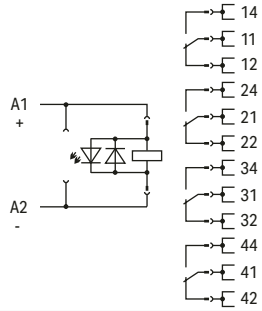




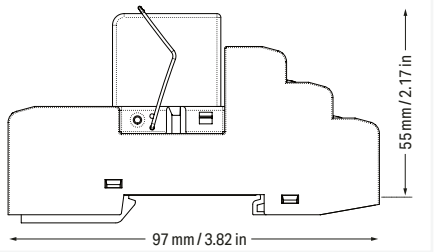
Control circuit	
Nominal input voltage U_N	220 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	5 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-166

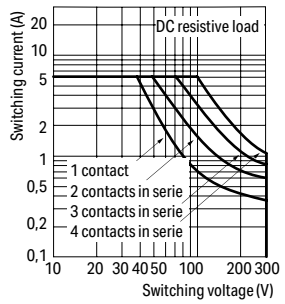
Relay module ▶ Nominal input voltage U_N: 220 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

Similar to illustration



Item No.	PU
858-391	5

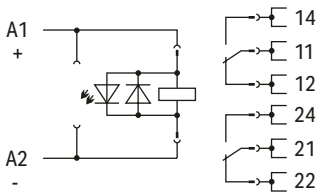




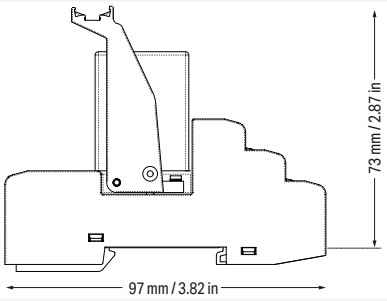
Control circuit	
Nominal input voltage U_N	220 VDC
Input voltage range	-10 … +30 %
Nominal input current at U_N	5 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 12 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	18 ms
Bounce time (typ.)	8 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.2 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 55 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)

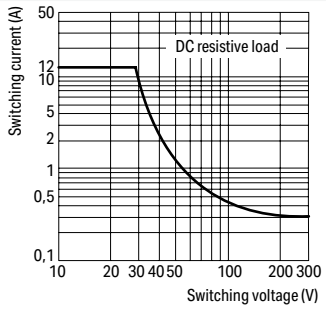
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

1



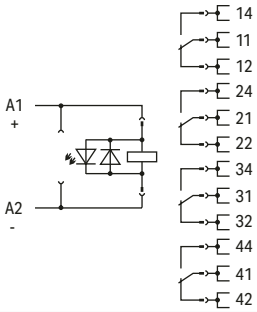
Item No.	PU
858-324	5



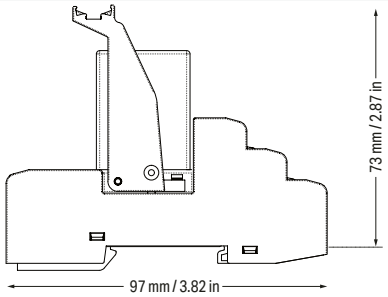


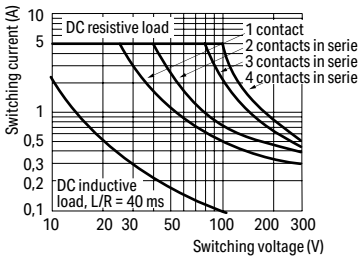
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	38 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1.5 A / 240 VAC; DC-13: 0.1 A / 250 VDC
Recommended minimum load	10 V / 5 mA / 300 mW
Pull-in time (typ.)	13 ms
Drop-out time (typ.)	3 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Switching frequency with/without load (max.)	20 min^{-1} / 200 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +55 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; UL 508
Basic relay	
WAGO Basic Relay	858-181

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



Item No.	PU
858-304	5





Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	37 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C); DNV
Basic relay	
WAGO Basic Relay	858-150

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; For railway applications ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

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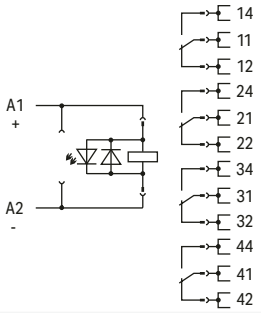
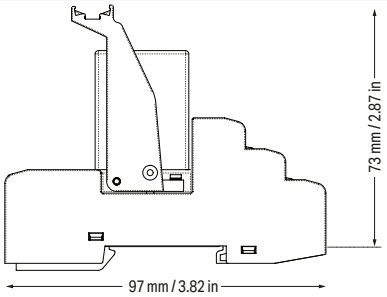
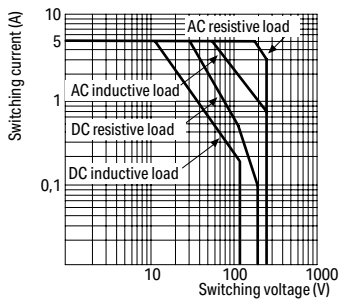


Item No.	PU
858-354	5

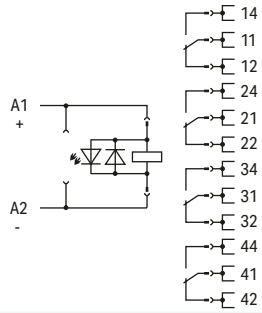


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

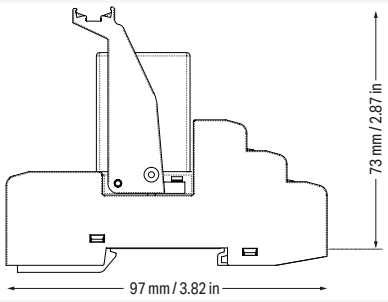


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	42 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	858-170

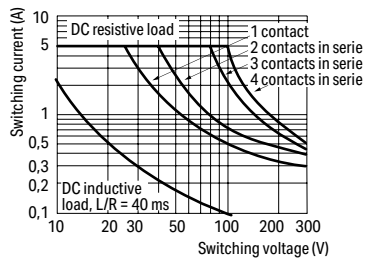
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



Item No.	PU
858-314	5



Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	37 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C); DNV
Basic relay	
WAGO Basic Relay	858-152

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts; For railway applications ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

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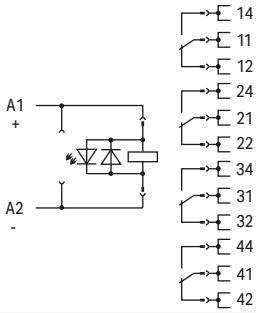
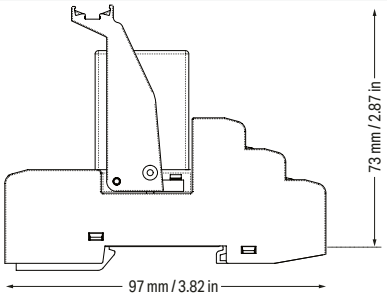
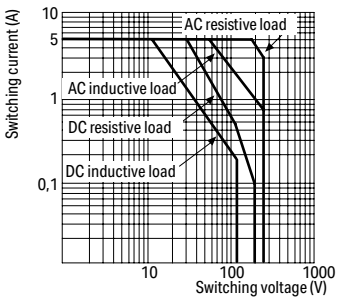


Item No.	PU
858-355	5

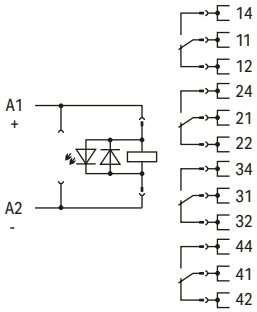


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.

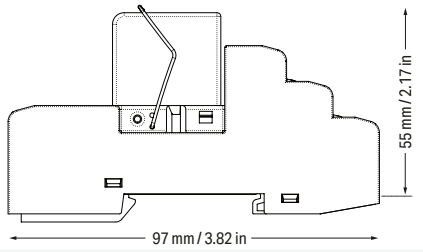


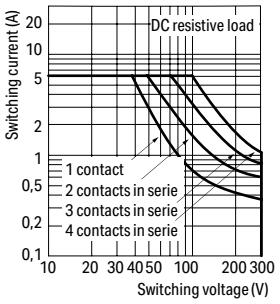
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	42 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508
Basic relay	
WAGO Basic Relay	858-171

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm



Item No.	PU
858-390	5



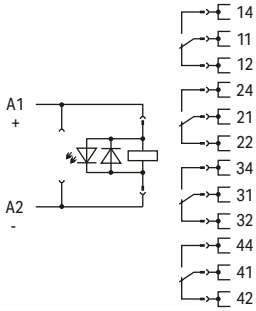


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-10 … +30 %
Nominal input current at U_N	32 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 12 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	18 ms
Bounce time (typ.)	8 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 60 min^{-1}
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.2 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 55 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-159

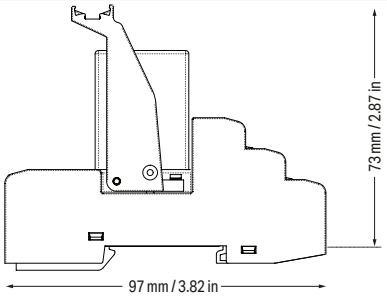
Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Status indicator: Red LED; Mechanical ▶ Width: 31 mm

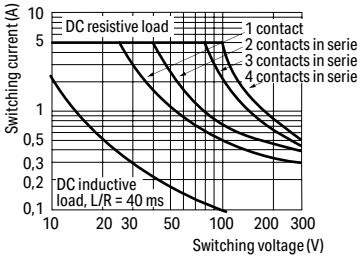
1

Similar to illustration



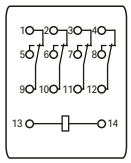
Item No.	PU
858-305	5





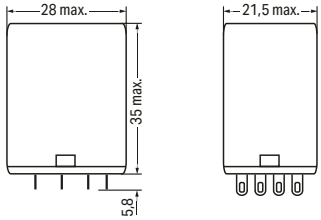
Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	-20 … +10 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 1 A / 240 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 73 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508 (max. 50 °C)
Basic relay	
WAGO Basic Relay	858-161

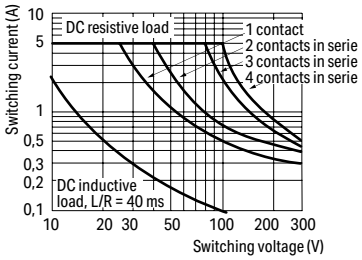
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Width: 21.5 mm



	Item No.	PU
	858-151	3

Dimensions in mm

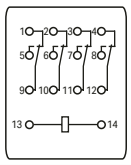




Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

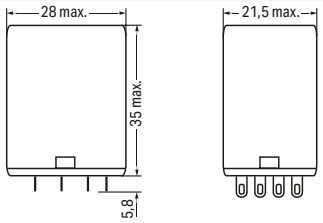
Basic relay ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Width: 21.5 mm

Similar to illustration

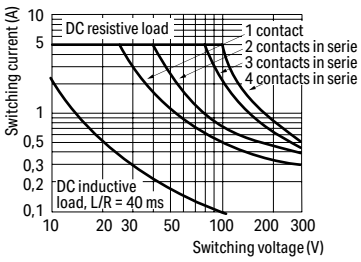


Item No.	PU
858-153	3

Dimensions in mm

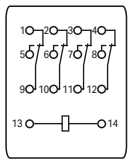


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.



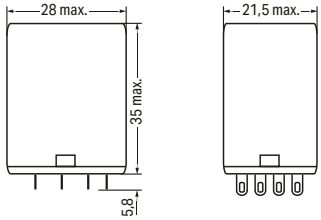
Control circuit	
Nominal input voltage U_N	230 VAC
Nominal input current at U_N	9 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

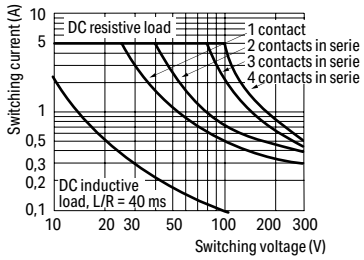
Basic relay ▶ Nominal input voltage U_N: 24 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Width: 21.5 mm



	Item No.	PU
	858-154	3

Dimensions in mm

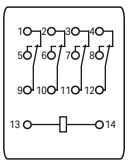




Control circuit	
Nominal input voltage U_N	24 VAC
Nominal input current at U_N	50 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

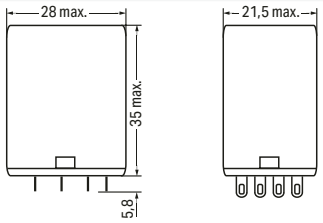
Basic relay ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Width: 21.5 mm

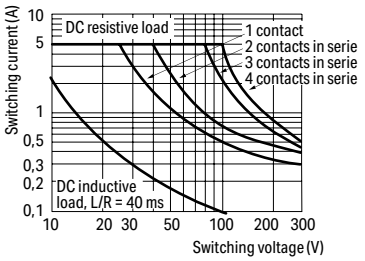
Similar to illustration



Item No.	PU
858-164	3

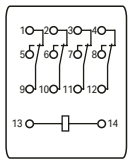
Dimensions in mm





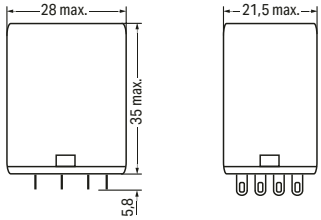
Control circuit	
Nominal input voltage U_N	12 VDC
Nominal input current at U_N	75 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

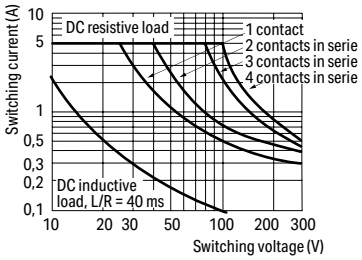
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation ▶ Width: 21.5 mm



	Item No.	PU
	858-150	3

Dimensions in mm

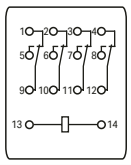




Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	37 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 100 mA
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

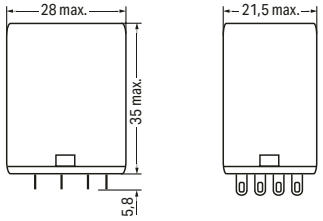
Basic relay ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 4 ▶ With manual operation; Gold contacts ▶ Width: 21.5 mm

Similar to illustration

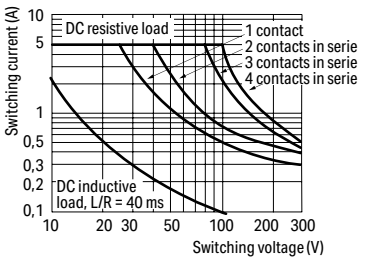


Item No.	PU
858-152	3

Dimensions in mm

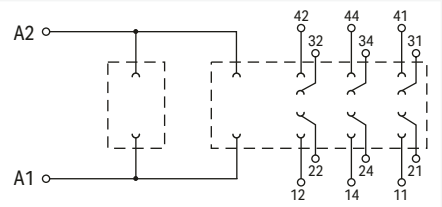


Note
To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life.

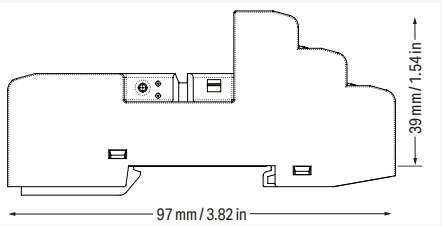


Control circuit	
Nominal input voltage U_N	24 VDC
Nominal input current at U_N	37 mA
Load circuit	
Number of changeover/switchover contacts	4
Contact material (relay)	AgCe + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	5 V / 1 mA / 50 mW
Pull-in time (typ.)	25 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Signaling	
Status indicator	Red LED; Mechanical
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	21.5 mm x 35 mm x 28 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61810-1

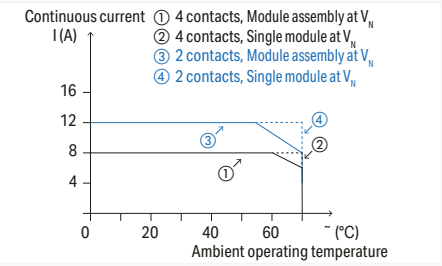
Socket without relay ▶ Nominal input voltage U_N: 5 … 250 VAC/VDC ▶ Limiting continuous current: 8 A (4 x); 12 A (2 x) ▶ Number of changeover/switchover contacts: 4 ▶ Width: 31 mm



	Item No.	PU
	858-100	10



Note
The specified technical data are maximum values. They may be limited by the accessories used.



Control circuit	
Nominal input voltage U_N	5 … 250 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	4
Limiting continuous current	8 A (4 x); 12 A (2 x)
Switching Voltage, Max.	250 VAC; 250 VDC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 1.5 mm² / 0.34 … 1.5 mm² / 22 … 16 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Note (conductor cross-section)	2 x 0.34 … 2 x 1.5 mm² / 1 x 2.5 mm² / 2 x 22 … 2 x 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	31 mm x 97 mm x 39 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; UR

Accessories

Accessories for relay modules; Operation status indicator: red

U_N	Power consumption at U_N	Item No.	PU
24 VDC	2.4 mA	788-120	50 (2 x 25)
48 VDC	1.9 mA	788-121	50 (2 x 25)
110 VDC	1.9 mA	788-122	50 (2 x 25)
24 VAC	2.1 mA	788-123	50 (2 x 25)
115 VAC	1.7 mA	788-124	50 (2 x 25)
230 VAC	1.6 mA	788-125	50 (2 x 25)

Ejector; for basic relays 25 mm x 35 mm

	Item No.	PU
	858-110	10 (1)

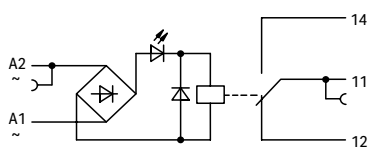
Push-in type jumper bar; for the coil side

Description	Item No.	PU
I_N 12 A	858-402	200 (8 x 25)

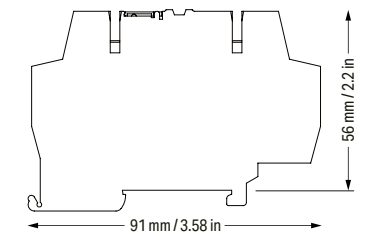
Operating tool with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade

	Item No.	PU
	210-719	50

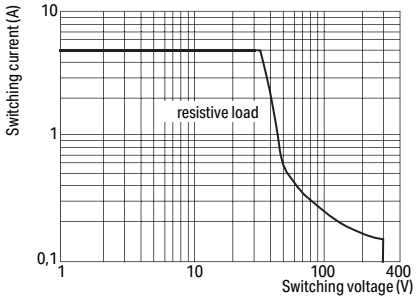
Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Defined turn-on/turn-off threshold ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-367	10

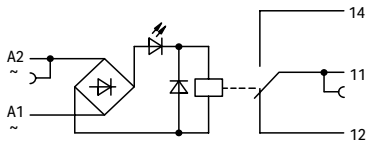


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

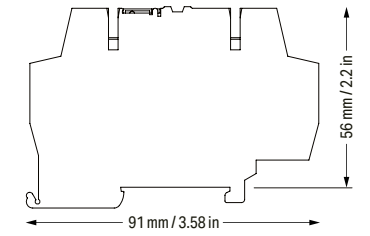


Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	5 mA
Switch-on threshold (relay/LED)	95 VAC / 80 VAC
Switch-off threshold (relay/LED)	60 VAC / 60 VAC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

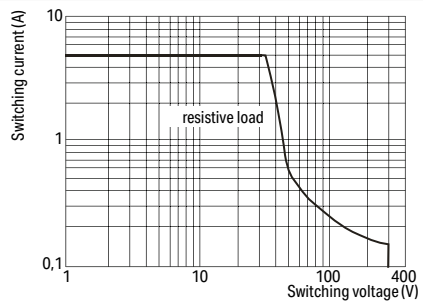
Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Defined turn-on/turn-off threshold ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-368	10

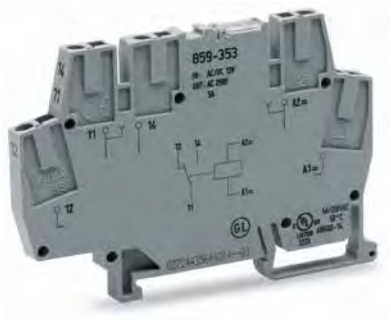


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

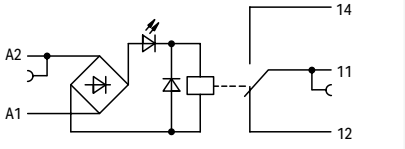


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	5 mA
Switch-on threshold (relay/LED)	190 VAC / 165 VAC
Switch-off threshold (relay/LED)	140 VAC / 150 VAC
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

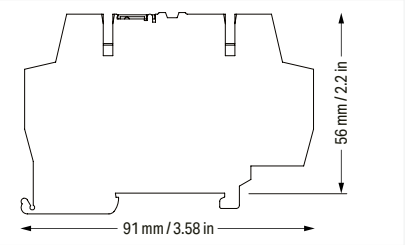
Relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



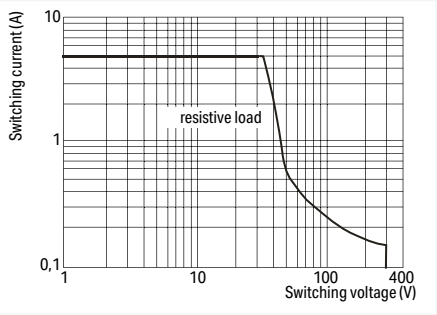
Similar to illustration



Item No.	PU
859-357	10

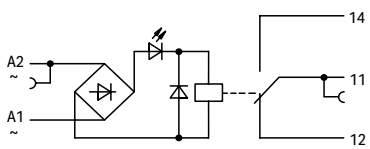


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

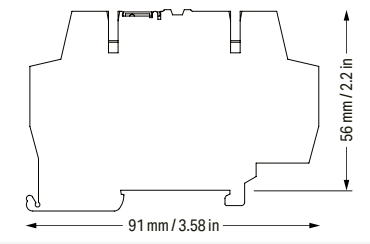


Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

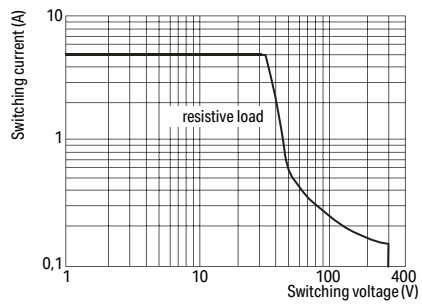
Relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 6 mm



	Item No.	PU
	859-360	1

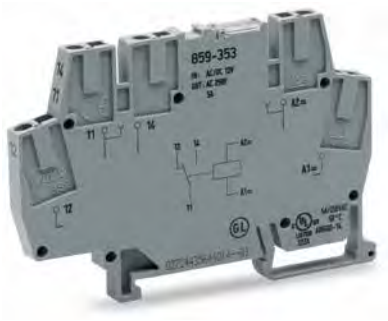


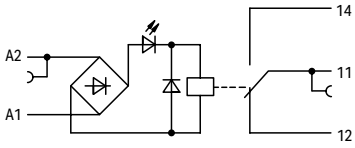
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



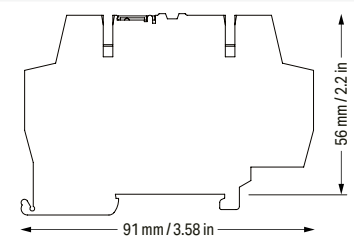
Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	30 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 12 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm

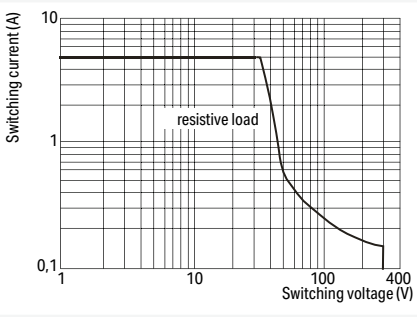




Item No.	PU
859-353	10

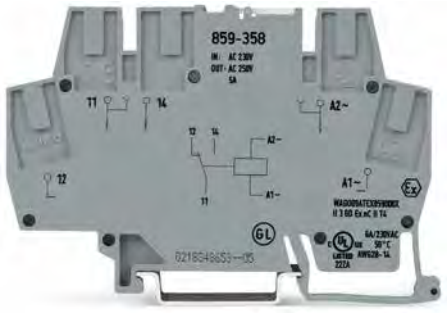


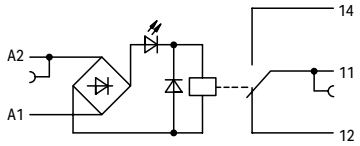
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



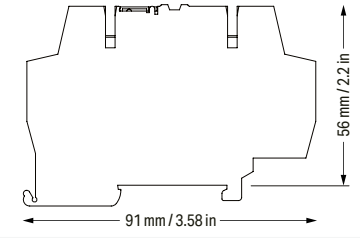
Control circuit	
Nominal input voltage U_N	12 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	15 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm

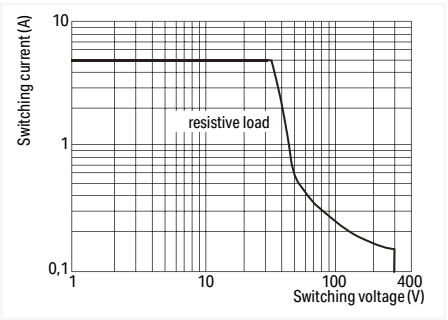




Item No.	PU
859-358	10



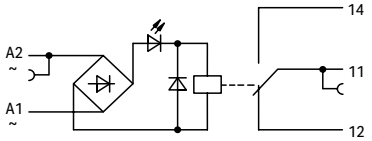
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



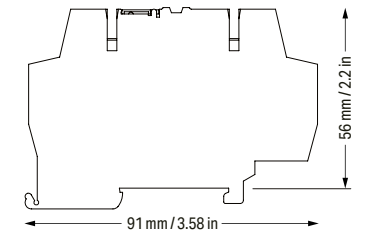
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 6 mm

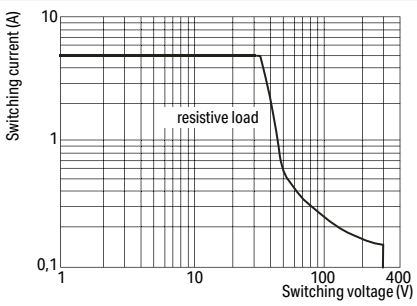
Similar to illustration



Item No.	PU
859-359	10

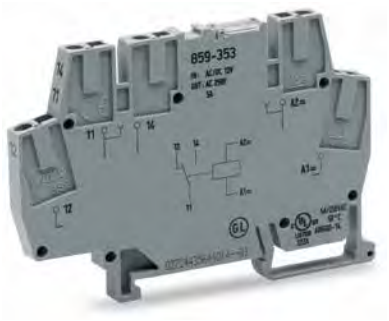


Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

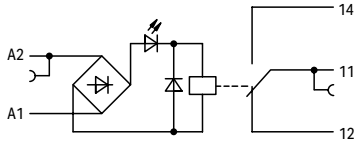


Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	30 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

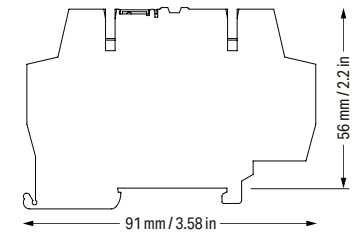
Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



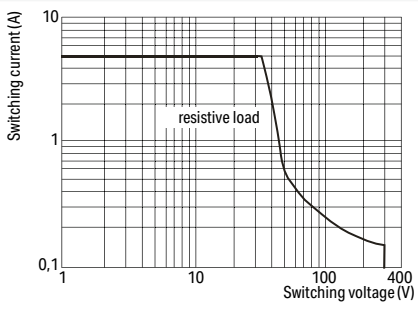
Similar to illustration



Item No.	PU
859-354	10

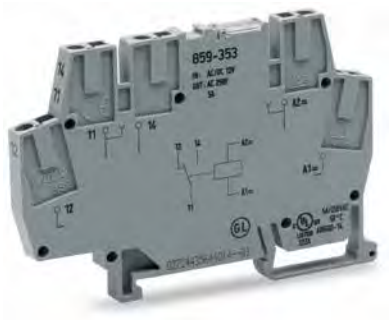


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

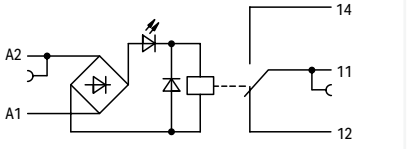


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

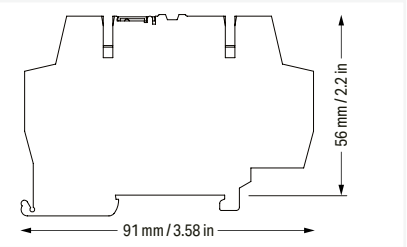
Relay module ▶ Nominal input voltage U_N: 48 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



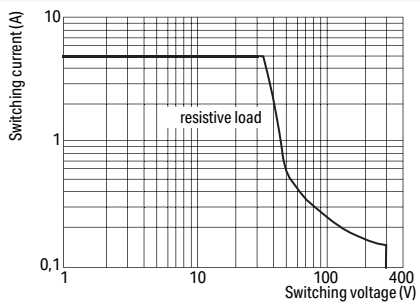
Similar to illustration



Item No.	PU
859-355	10

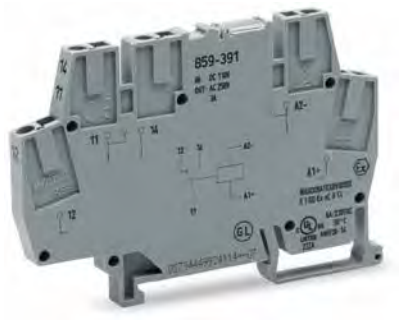


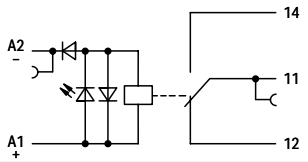
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



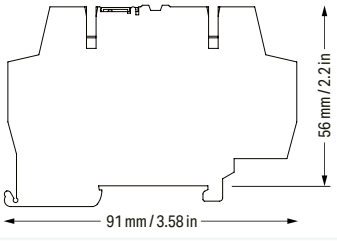
Control circuit	
Nominal input voltage U_N	48 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	6 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

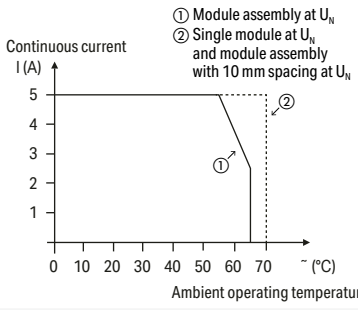


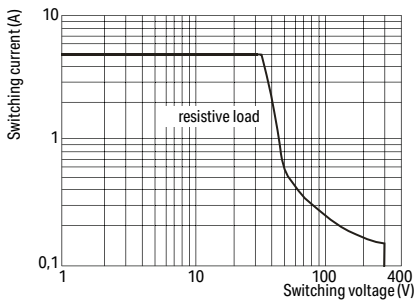


	Item No.	PU
	859-391	10



Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

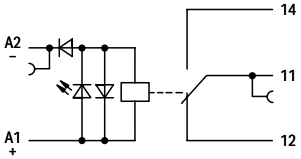




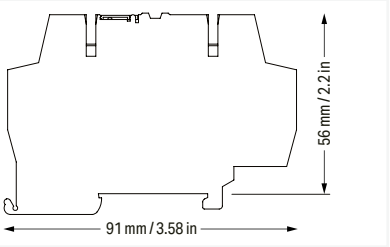
Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±30 %
Nominal input current at U_N	3 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm

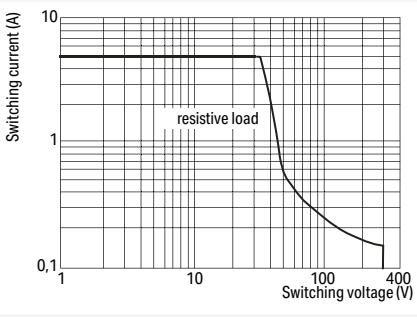
Similar to illustration



Item No.	PU
859-307	10

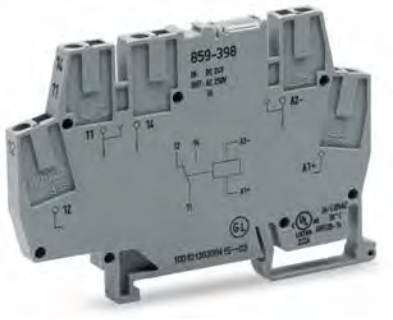


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

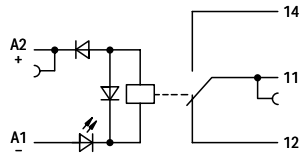


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

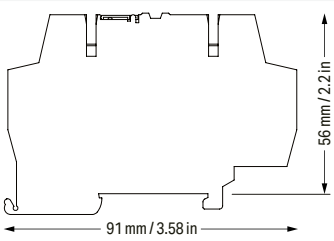
Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



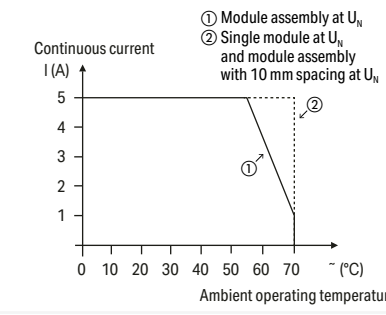
Similar to illustration

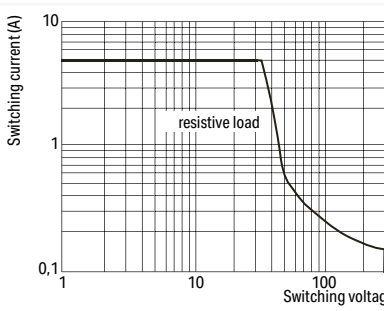


Item No.	PU
859-399	10



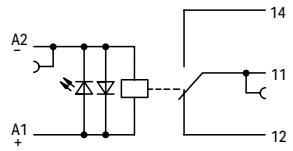
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



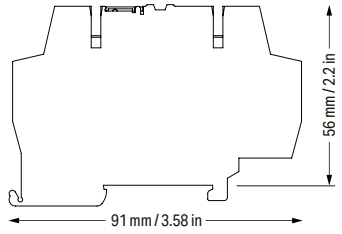


Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	±40 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; DNV

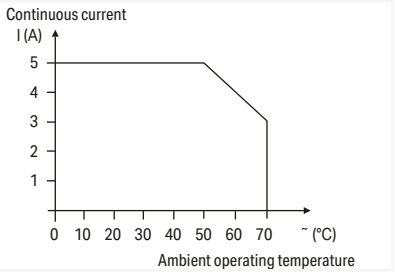
Relay module ▶ Nominal input voltage U_N: 110 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts; For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

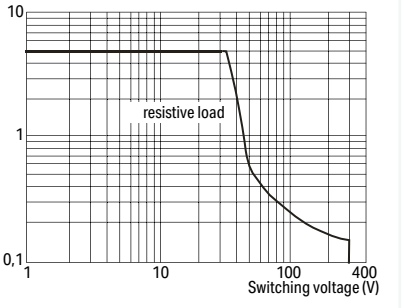


Item No.	PU
859-317	10



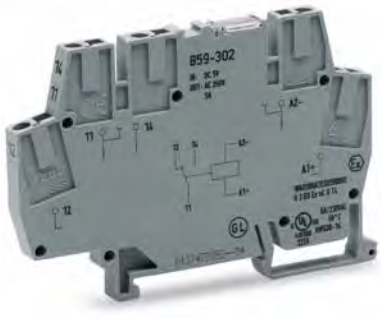
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.





Control circuit	
Nominal input voltage U_N	110 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 12 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



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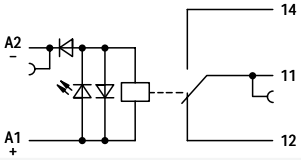
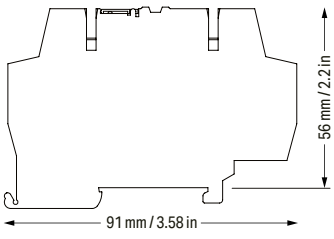
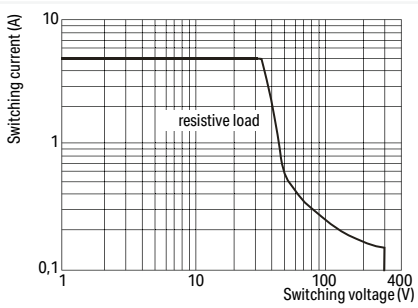


Item No.	PU
859-303	10



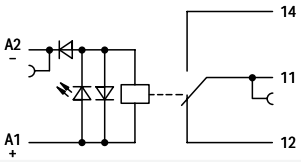
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



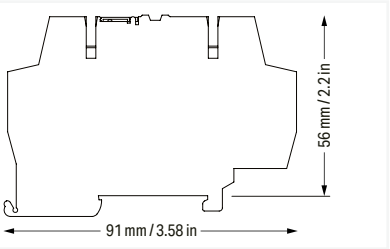
Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 220 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm

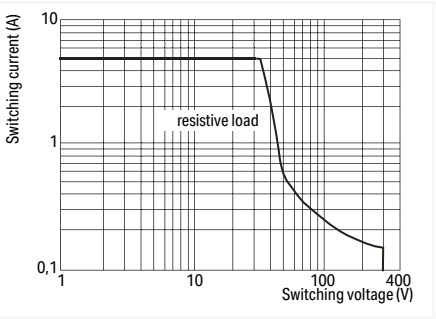
Similar to illustration



Item No.	PU
859-308	10

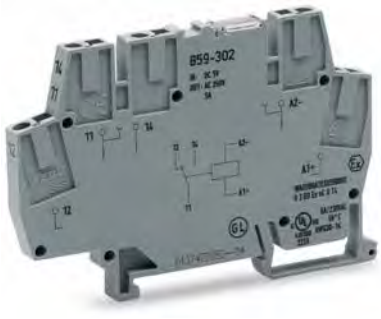


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	220 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



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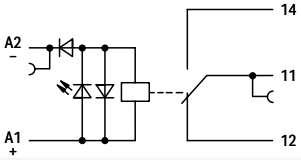
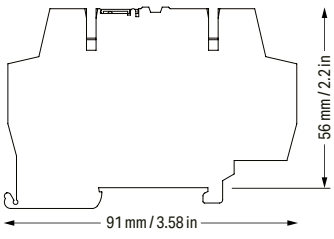
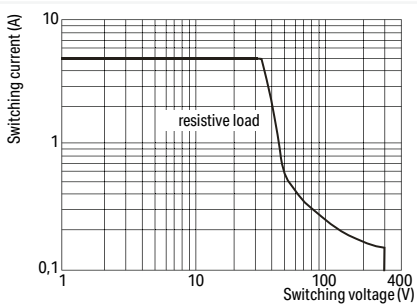


Item No.	PU
859-304	10

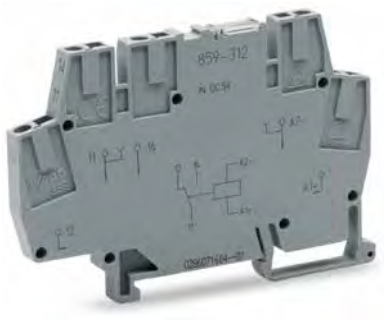


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 6 mm



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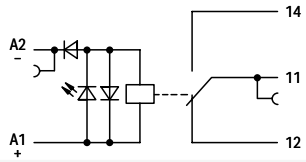
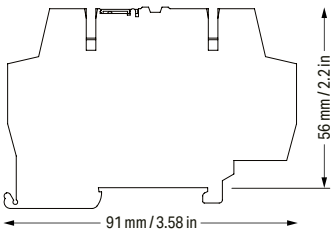
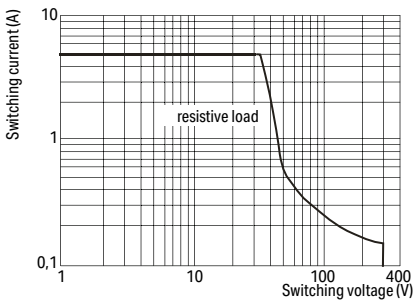


Item No.	PU
859-314	10



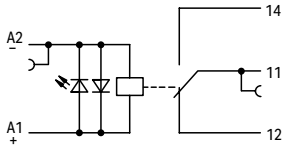
Note

To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts; For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



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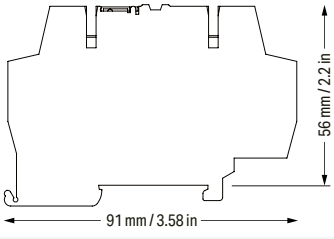
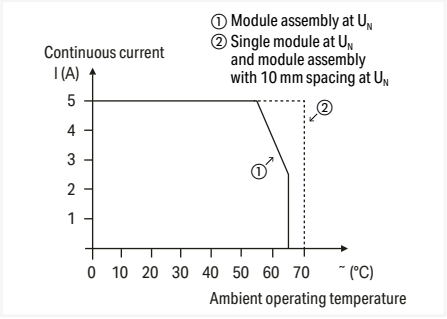
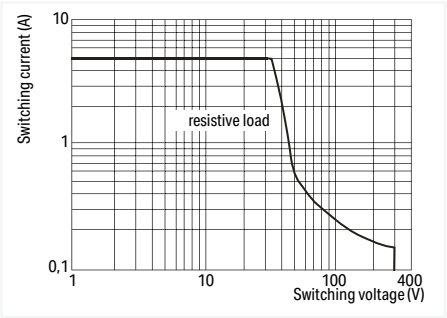
	859-392	10



Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

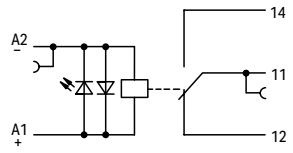




Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	10 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

1



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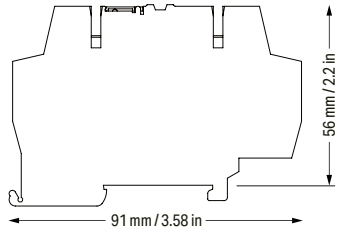
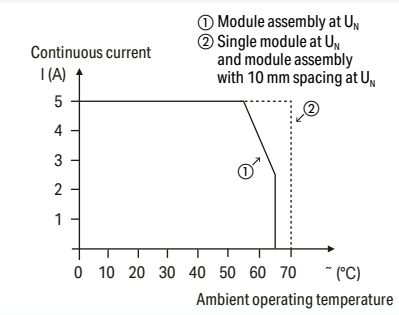
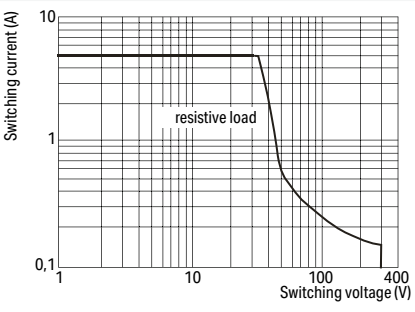
859-390	10



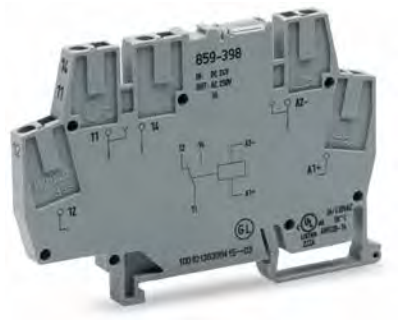
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

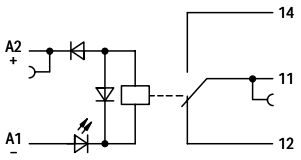




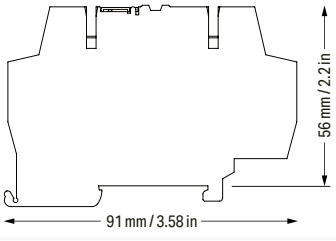
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	12 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

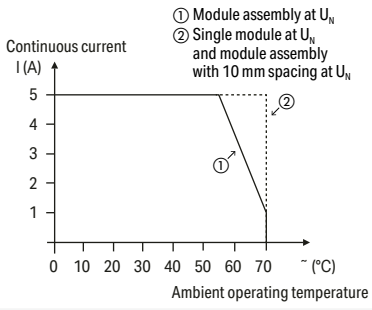


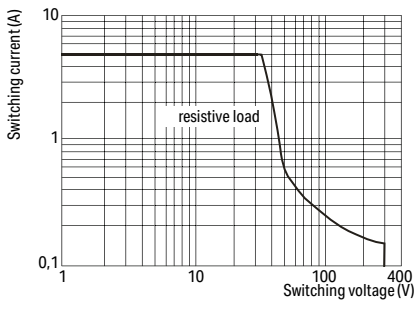


	Item No.	PU
	859-398	10



Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

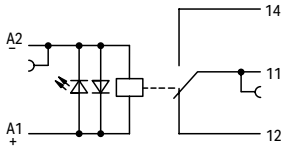




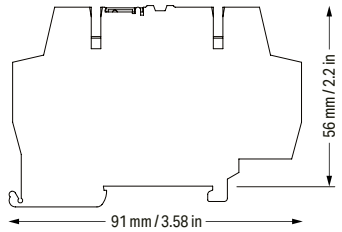
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±40 %
Nominal input current at U_N	15 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; EN 50121-3-2; DNV

Relay module ▶ Nominal input voltage U_N: 36 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts; For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

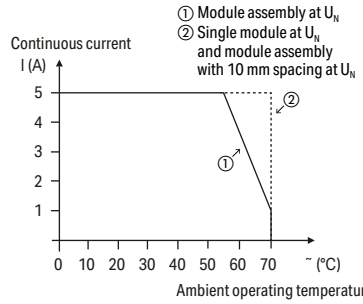
Similar to illustration

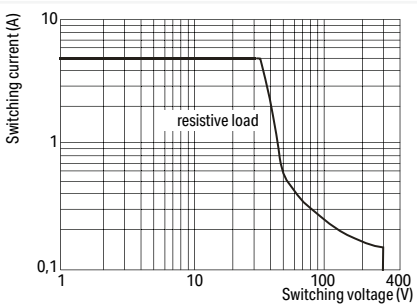


Item No.	PU
859-386	10



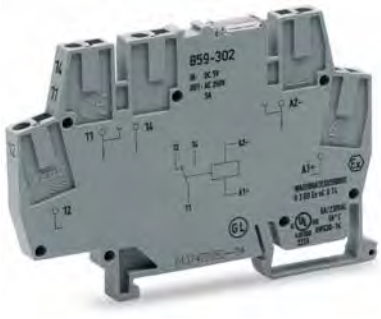
Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



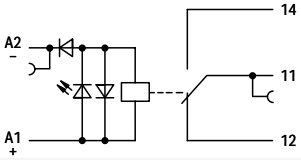


Control circuit	
Nominal input voltage U_N	36 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	11 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm



Similar to illustration



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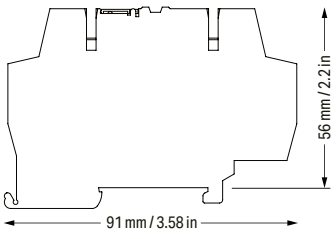
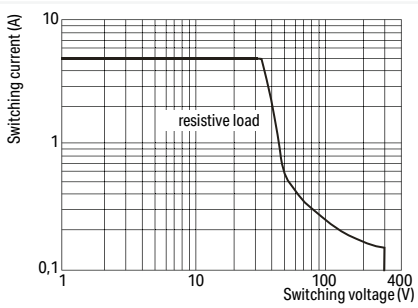
859-305	10

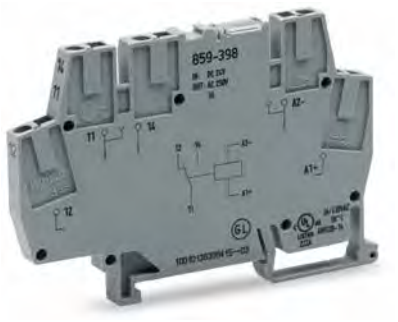


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 48 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



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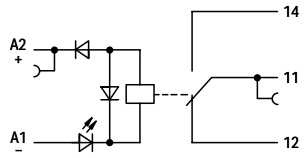
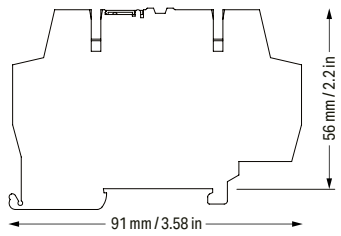
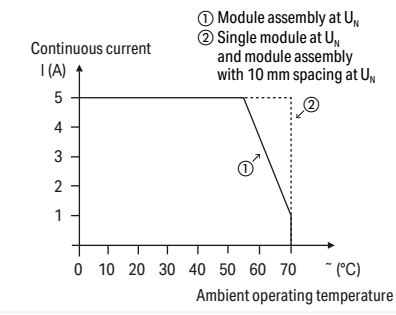
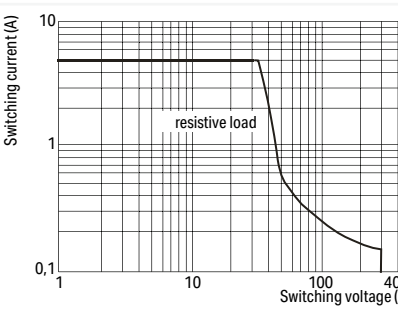


Item No.	PU
859-397	10



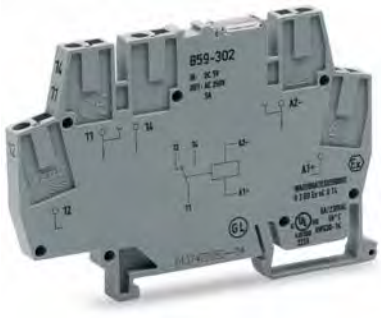
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

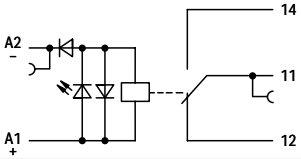




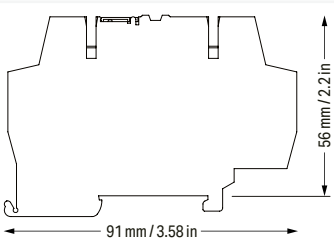
Control circuit	
Nominal input voltage U_N	48 VDC
Input voltage range	±40 %
Nominal input current at U_N	8 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; EN 50121-3-2; DNV

Relay module ▶ Nominal input voltage U_N: 5 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 6 mm

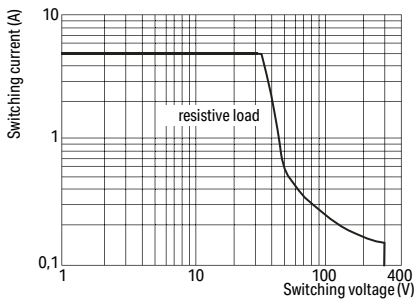




Item No.	PU
859-302	10

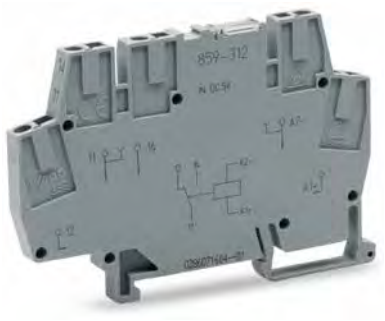


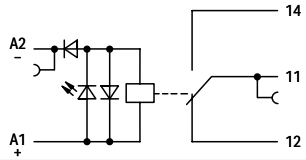
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



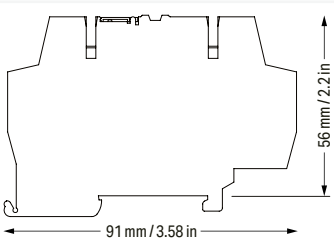
Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	31 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; UL 508; DNV

Relay module ▶ Nominal input voltage U_N: 5 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 1 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 6 mm

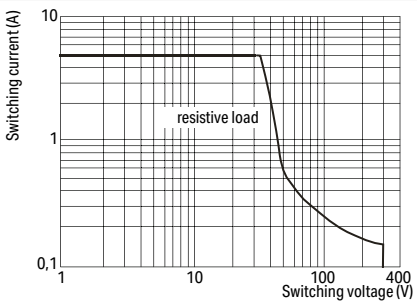




Item No.	PU
859-312	1



Note
To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	31 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 180 min^{-1}
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-1; EN 61373; DNV; UL 508

Accessories

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	Item No.	PU
	210-720	50

End and intermediate plate; 1 mm thick

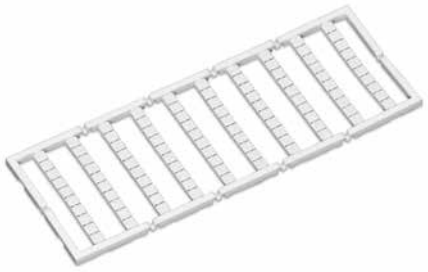
	Item No.	PU
	859-525	100

Test pin; 1 mm Ø; with solder connection for test cable

	Item No.	PU
	859-500	100

Accessories

Push-in type jumper bar; light gray; insulated; 18 A		
Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)
Item no. suffixes for colored push-in type jumper bars		
yellow	.../000-029	
red	.../000-005	
blue	.../000-006	

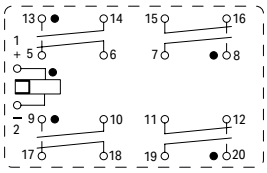


Mini-WSB marker card; Marker width: 5 mm; 10 strips with 10 markers/card		
Marking	Item No.	PU
plain	248-501	50
1 ... 10 (10 x)	248-502	50
11 ... 20 (10 x)	248-503	50
21 ... 30 (10 x)	248-504	50
31 ... 40 (10 x)	248-505	50
41 ... 50 (10 x)	248-506	50
1 ... 50 (2 x)	248-566	50
K1 ... K10	248-450	50
K11 ... K20	248-451	50
K100	248-452	50
U1 ... U10	248-453	50
U11 ... U20	248-454	50
U100	248-455	50

Mini-WSB Inline; for terminal block width: 5 ⋯ 5.2 mm; plain; 1700 markers/reel; white		
Marking	Item No.	PU
plain	2009-145	1

Relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of break/switch-off contacts: 4 ▶ Number of make/switch-on contacts: 4 ▶ Force-guided contacts ▶ Width: 63.5 mm

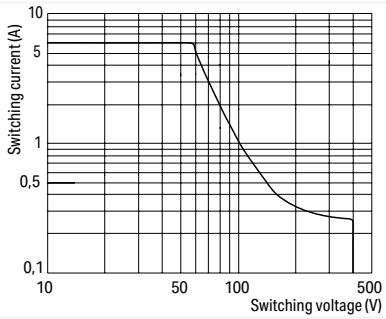
Similar to illustration



Item No.	PU
288-418	1

Note

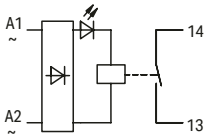
If required, a ventilation hole can be made in the cover, reducing the protection type from IP67 to IP30.
If an outer contact (20) should weld, then the forced operated inner contact (12) driven by the actuator remains open. The rotating armature remains free to move. The unaffected contact pairs can operate normally, (i. e. their function to make or break remains unaffected).
If an inner contact should weld (12) then the movement of the rotating armature is blocked via the operator. Open contacts of all four contact pairs remain open. This arrangement corresponds to conventional, force-guided operation.



Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	14 mA
Load circuit	
Number of break/switch-off contacts	4
Number of make/switch-on contacts	4
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Recommended minimum load	10 V / 10 mA
Pull-in time (typ.)	18 ms
Drop-out time (typ.)	21 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Mechanical force-guided operation	Type B
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Type of circuits	Secondary circuits
Note on insulation parameters	per EN 61010-1
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.3 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 85 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	63.5 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 60664-1; EN 61810-1; EN 61810-3; ESTI (SEV): 09.1133; UL 508: E120782; TÜV: 968/EZ 116.02/09

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of make/switch-on contacts: 1 ▶ Width: 13 mm

Similar to illustration

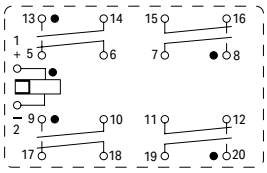


Item No.	PU
288-564	15

Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	20 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 16 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Pull-in time (typ.)	4 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	200 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 75 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	13 mm x 85 mm x 47 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of break/switch-off contacts: 4 ▶ Number of make/switch-on contacts: 4 ▶ Force-guided contacts ▶ Width: 63.5 mm

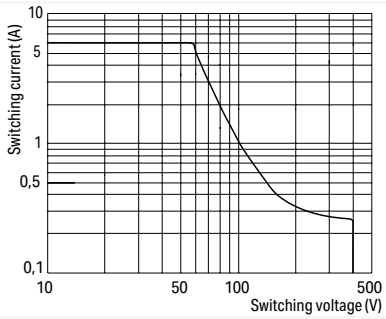
Similar to illustration



Item No.	PU
288-414	1

Note

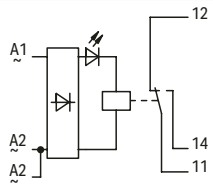
If required, a ventilation hole can be made in the cover, reducing the protection type from IP67 to IP30.
If an outer contact (20) should weld, then the forced operated inner contact (12) driven by the actuator remains open. The rotating armature remains free to move. The unaffected contact pairs can operate normally, (i. e. their function to make or break remains unaffected).
If an inner contact should weld (12) then the movement of the rotating armature is blocked via the operator. Open contacts of all four contact pairs remain open. This arrangement corresponds to conventional, force-guided operation.



Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	26 mA
Load circuit	
Number of break/switch-off contacts	4
Number of make/switch-on contacts	4
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Recommended minimum load	10 V / 10 mA
Pull-in time (typ.)	18 ms
Drop-out time (typ.)	21 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Mechanical force-guided operation	Type B
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.3 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	63.5 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60664-1; EN 61810-1; EN 61810-3; ESTI (SEV): 09.1133; UL 508: E120782; TÜV: 968/EZ 116.02/09

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 20.5 mm

Similar to illustration

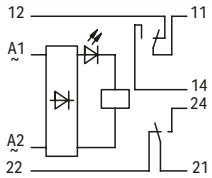


Item No.	PU
288-504	5

Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	22 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 16 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	9 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20.5 mm x 85 mm x 48 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 60664-1

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 22.5 mm

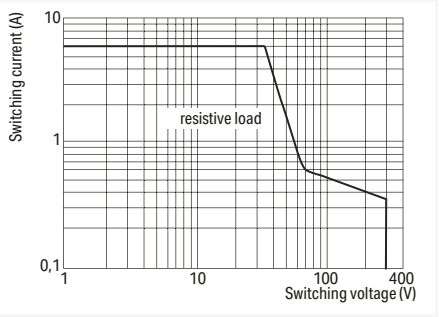
Similar to illustration



Item No.	PU
288-512	10

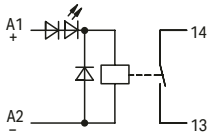
Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	18.8 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 0.15
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 14 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	2.5 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP00
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 40 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 85 mm x 48 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

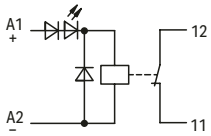
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of make/switch-on contacts: 1 ▶ Width: 13 mm



	Item No.	PU
	288-364	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	20 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 16 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Pull-in time (typ.)	4 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	200 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 75 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	13 mm x 85 mm x 47 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

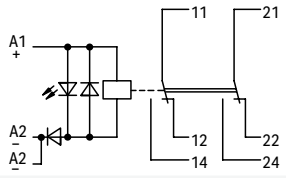
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of break/switch-off contacts: 1 ▶ Width: 13 mm



Item No.	PU
288-368	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	20 mA
Load circuit	
Number of break/switch-off contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 16 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Pull-in time (typ.)	4 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	200 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 75 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	13 mm x 85 mm x 47 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 2 ▶ Force-guided contacts; Gold contacts ▶ Width: 19 mm



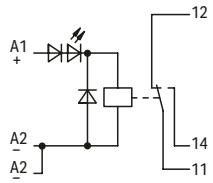
	Item No.	PU
	288-437	10

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
60 VDC switching voltages and 300 mA currents must not be exceeded for gold-plated basic relays. Higher switching power eventually evaporates the gold layer.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	36 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 10 + Au
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	0.1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	12 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	50 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	3 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Functional insulation
Insulation type (adjacent devices)	Basic insulation
Protection type	IP00
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 %
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	19 mm x 75 mm x 38 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61810-3

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Width: 20.5 mm

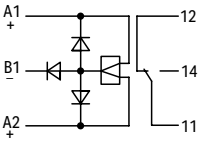


Item No.	PU
288-304	10

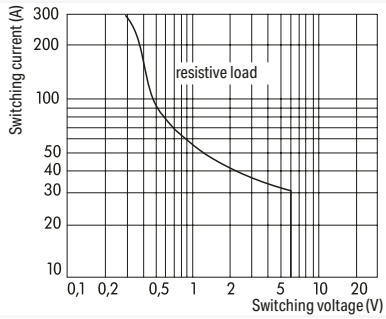
Note
Reinforced insulation between control and load side per EN 61010-2-201

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	22 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 16 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	9 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 75 % (non-condensing)
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20.5 mm x 85 mm x 48 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Bistable relay ▶ Width: 20.5 mm

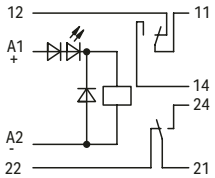


Item No.	PU
288-380	10



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	51 mA
Functions	Set (closed 11-14 contacts): A1; Reset (closed 11-12 contacts): A2
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	10 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 75 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20.5 mm x 85 mm x 48 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

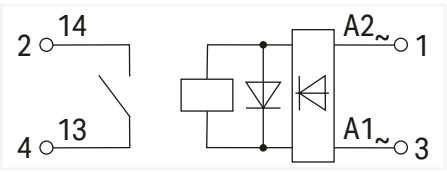
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 2 ▶ Width: 22.5 mm



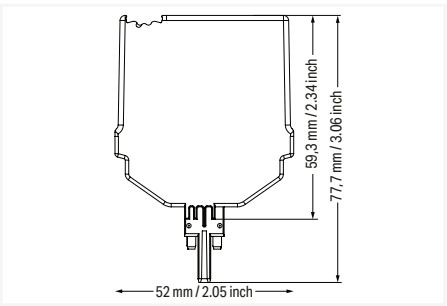
Item No.	PU
288-312	10

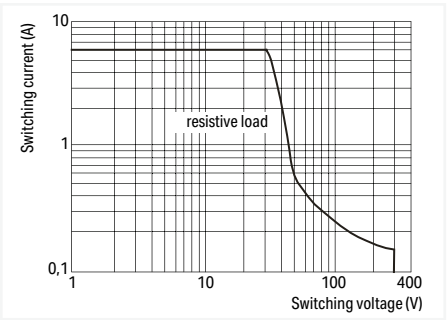
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	22 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 0.15
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 14 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	20 x 10^6 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 85 mm x 48 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 60664-1

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 3 A ▶ Number of make/switch-on contacts: 1 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 10.3 mm



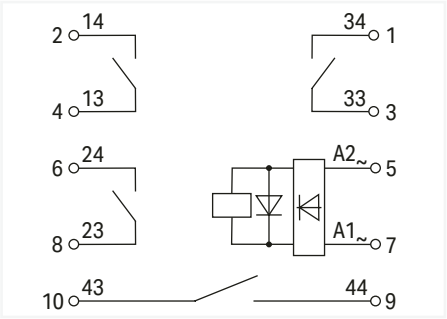
Item No.	PU
2042-3809	6



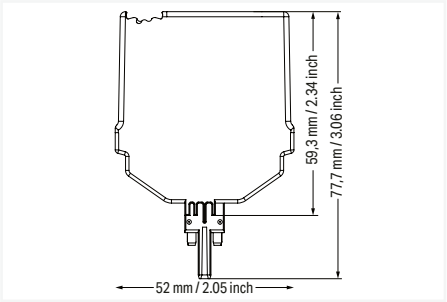


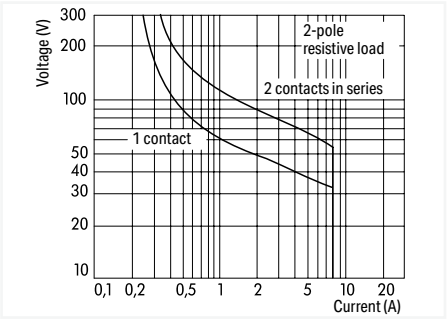
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	2 mA (230 V); 26.3 mA (24 V)
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	3 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 750 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 3 A ▶ Number of make/switch-on contacts: 4 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 25.9 mm



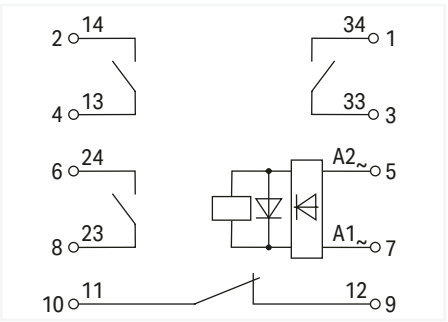
Item No.	PU
2042-3829	5



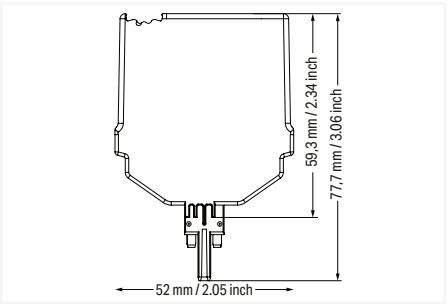


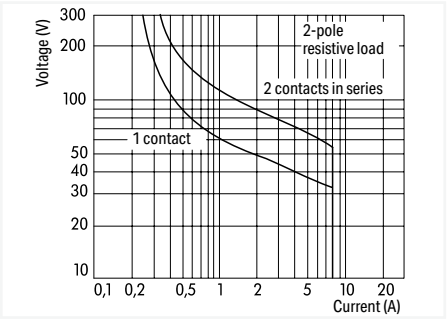
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA (230 V); 58.4 mA (24 V)
Load circuit	
Number of make/switch-on contacts	4
Contact material (relay)	AgNi
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 750 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 3 A ▶ Number of break/switch-off contacts: 1 ▶ Number of make/switch-on contacts: 3 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 25.9 mm



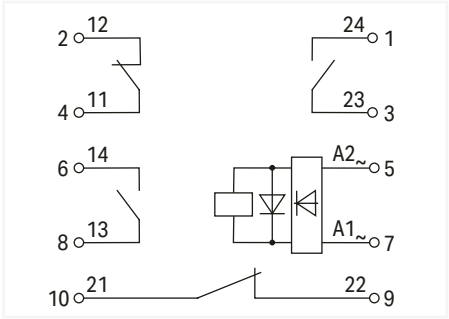
	Item No.	PU
	2042-3879	4



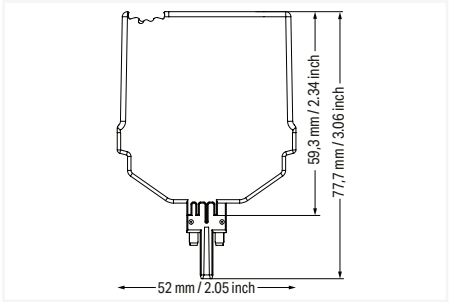


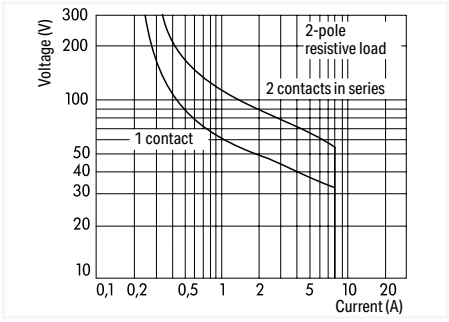
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA (230 V); 58.4 mA (24 V)
Load circuit	
Number of break/switch-off contacts	1
Number of make/switch-on contacts	3
Contact material (relay)	AgNi
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 750 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 3 A ▶ Number of break/switch-off contacts: 2 ▶ Number of make/switch-on contacts: 2 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 25.9 mm



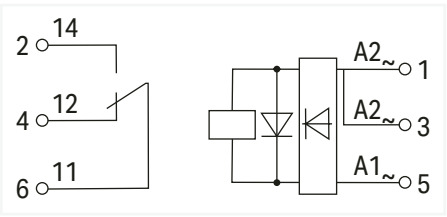
	Item No.	PU
	2042-3889	5



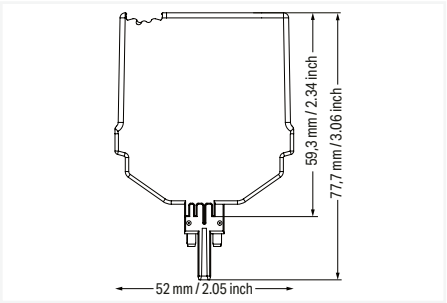


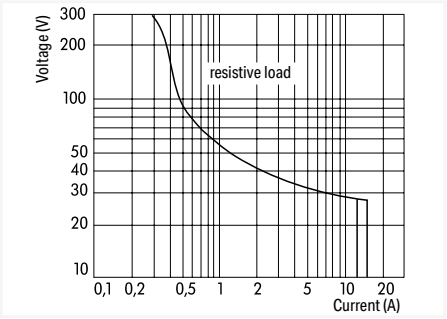
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA (230 V); 58.4 mA (24 V)
Load circuit	
Number of break/switch-off contacts	2
Number of make/switch-on contacts	2
Contact material (relay)	AgNi
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 750 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 4 A ▶ Number of changeover/switchover contacts: 1 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 15.5 mm



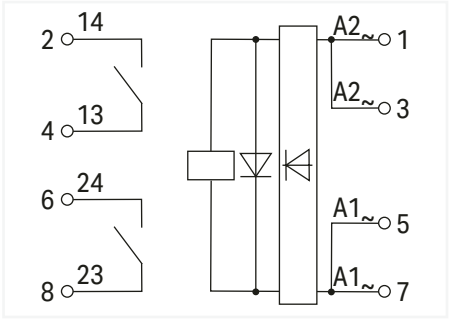
Item No.	PU
2042-3839	4



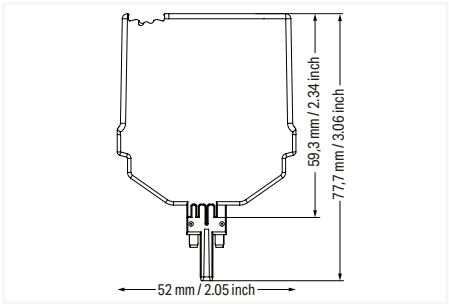


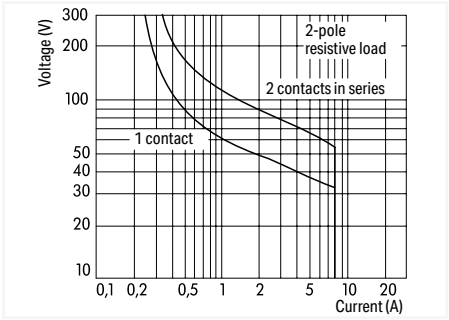
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	6 mA (230 V); 50.2 mA (24 V)
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	4 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of make/switch-on contacts: 2 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 20.7 mm



Item No.	PU
2042-3819	4





Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	3 mA (230 V); 49.1 mA (24 V)
Load circuit	
Number of make/switch-on contacts	2
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

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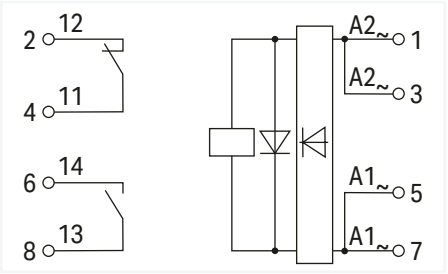
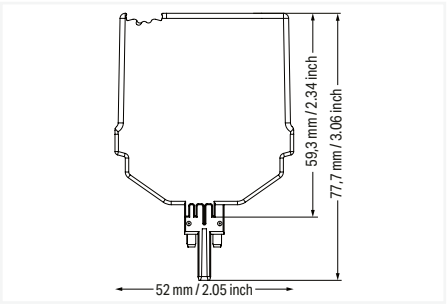
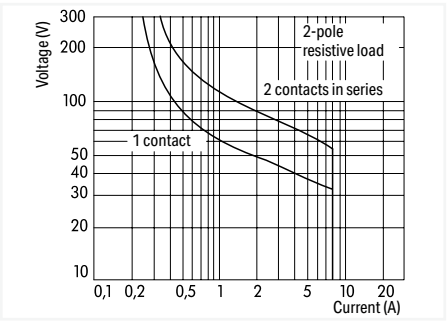
Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of break/switch-off contacts: 1 ▶ Number of make/switch-on contacts: 1 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 20.7 mm



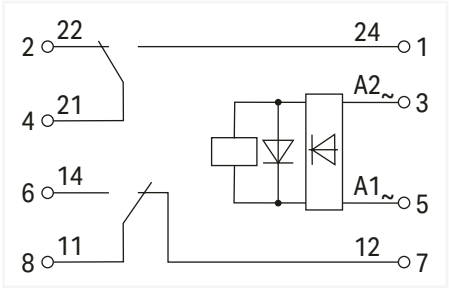
Item No.	PU
2042-3869	4



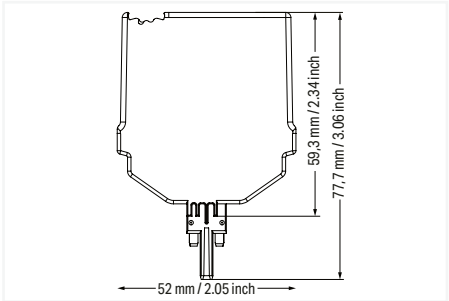


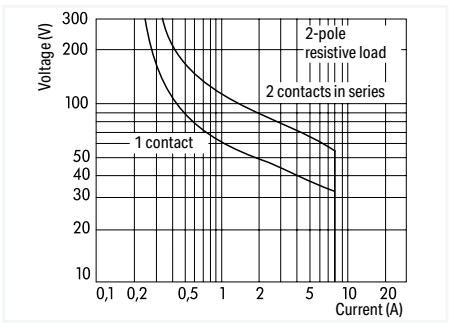
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	3 mA (230 V); 49.1 mA (24 V)
Load circuit	
Number of break/switch-off contacts	1
Number of make/switch-on contacts	1
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 5 A ▶ Number of changeover/switchover contacts: 2 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 20.7 mm



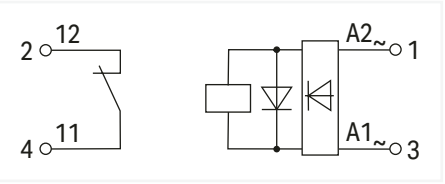
Item No.	PU
2042-3849	4



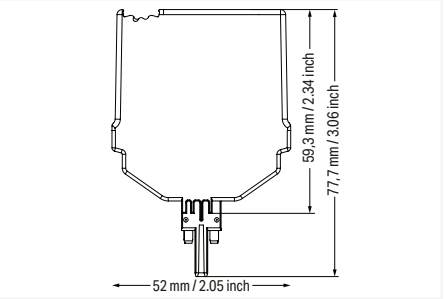


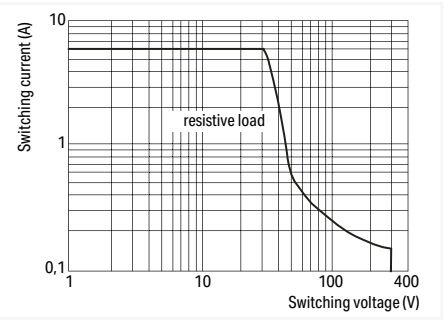
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	3 mA (230 V); 49.1 mA (24 V)
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 … 230 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Number of break/switch-off contacts: 1 ▶ Wide input voltage range ▶ Status indicator: Green LED ▶ Width: 10.3 mm



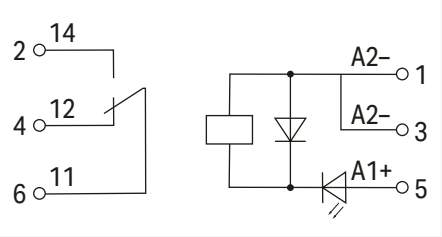
Item No.	PU
2042-3859	6



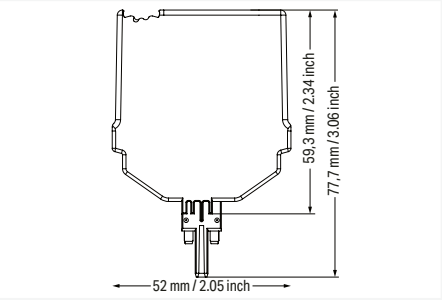


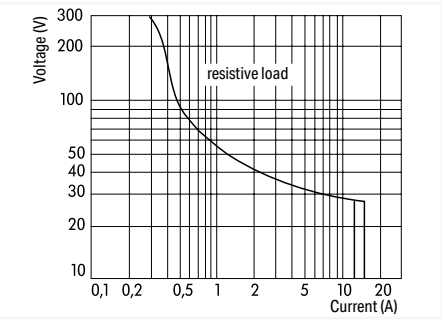
Control circuit	
Nominal input voltage U_N	24 … 230 VAC/VDC
Input voltage range	±10 %
Nominal input current at U_N	2 mA (230 V); 26.3 mA (24 V)
Load circuit	
Number of break/switch-off contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Electrical life (NC; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 10 A ▶ Number of changeover/switchover contacts: 1 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 15.5 mm



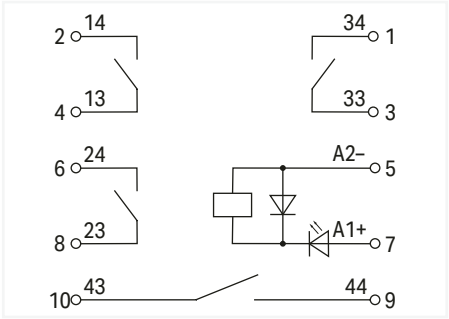
Item No.	PU
2042-3034	4



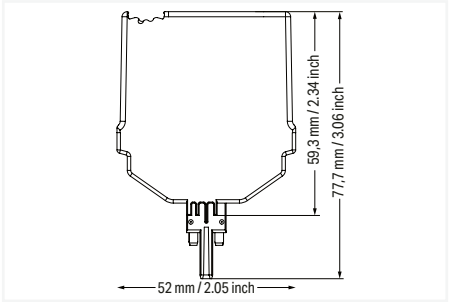


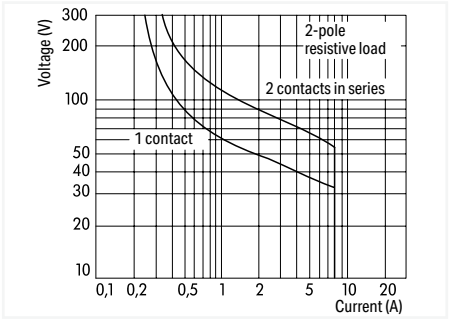
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	14 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	10 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2500 VA; DC (see load limit curve)
Switching capacity	AC-15: 6 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of make/switch-on contacts: 4 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 25.9 mm



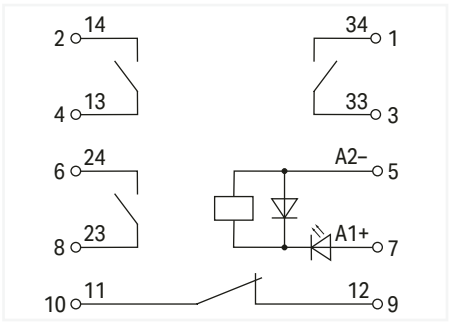
Item No.	PU
2042-3024	5



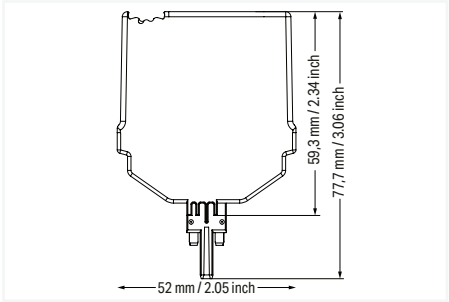


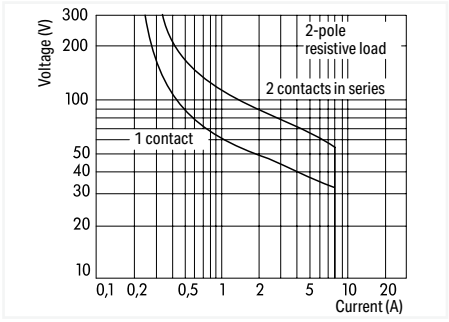
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	29 mA
Load circuit	
Number of make/switch-on contacts	4
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of break/switch-off contacts: 1 ▶ Number of make/switch-on contacts: 3 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 25.9 mm



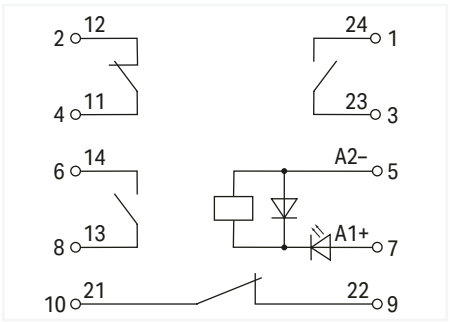
Item No.	PU
2042-3074	5



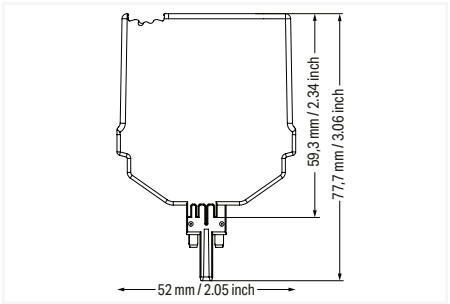


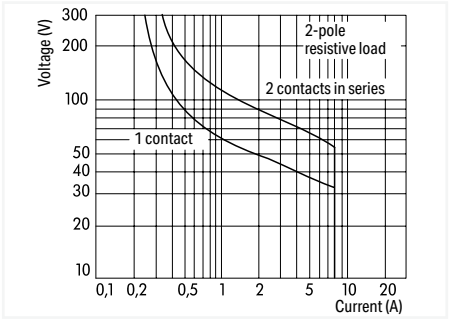
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	28 mA
Load circuit	
Number of break/switch-off contacts	1
Number of make/switch-on contacts	3
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of break/switch-off contacts: 2 ▶ Number of make/switch-on contacts: 2 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 25.9 mm



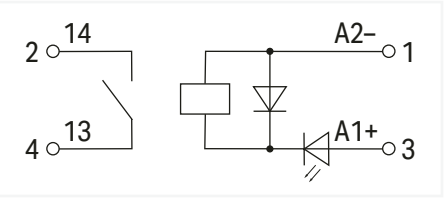
Item No.	PU
2042-3084	5



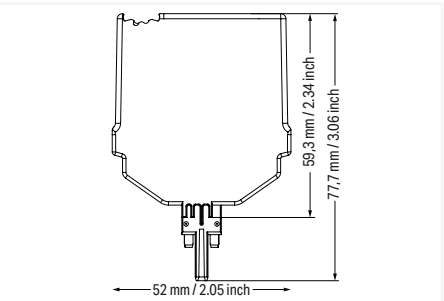


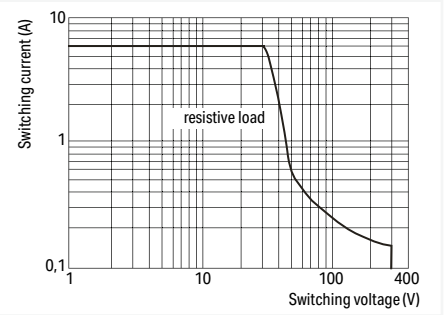
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	29 mA
Load circuit	
Number of break/switch-off contacts	2
Number of make/switch-on contacts	2
Contact material (relay)	AgNi
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	25.9 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of make/switch-on contacts: 1 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 10.3 mm



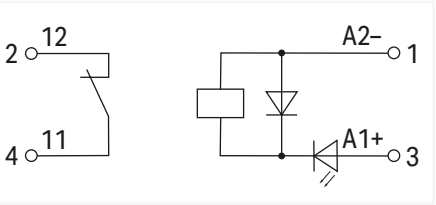
Item No.	PU
2042-3004	6



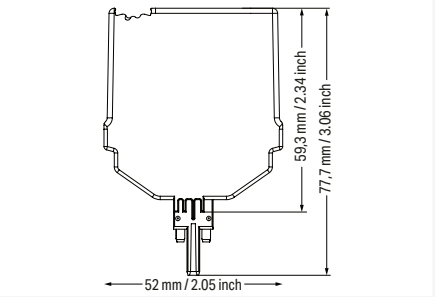


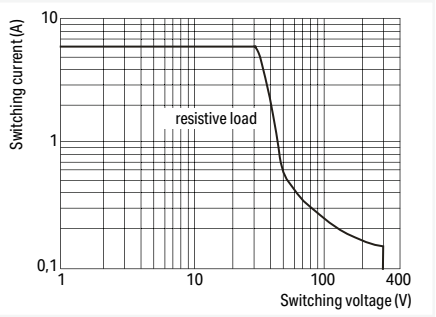
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	7 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of break/switch-off contacts: 1 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 10.3 mm



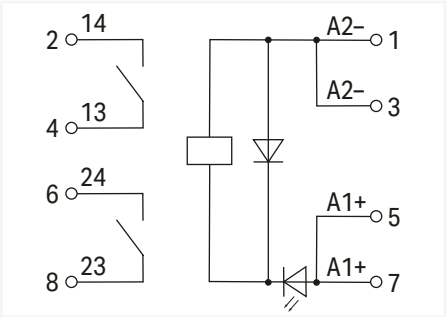
Item No.	PU
2042-3054	6



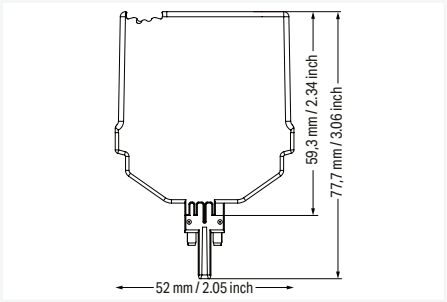


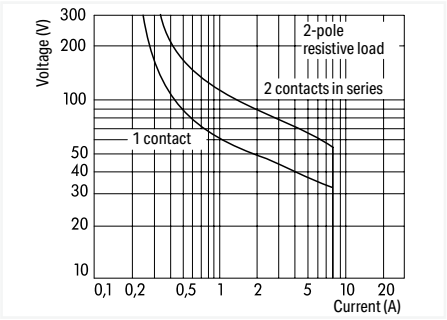
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	7 mA
Load circuit	
Number of break/switch-off contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Electrical life (NC; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of make/switch-on contacts: 2 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 20.7 mm



Item No.	PU
2042-3014	1

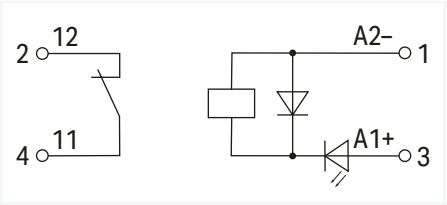




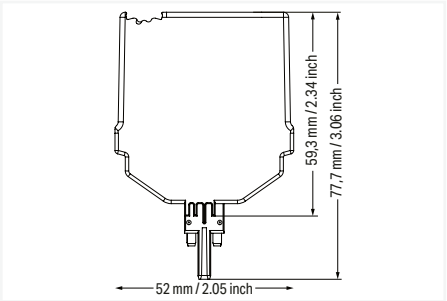
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	14 mA
Load circuit	
Number of make/switch-on contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

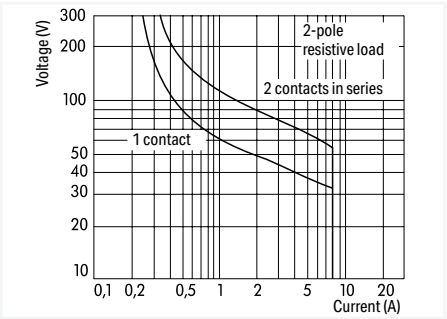
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of break/switch-off contacts: 1 ▶ Number of make/switch-on contacts: 1 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 20.7 mm

1



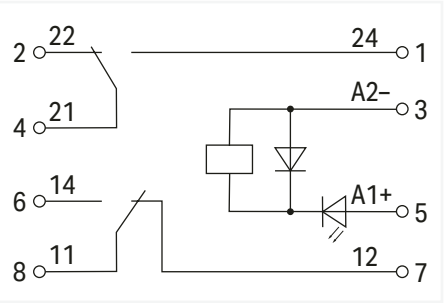
Item No.	PU
2042-3064	4



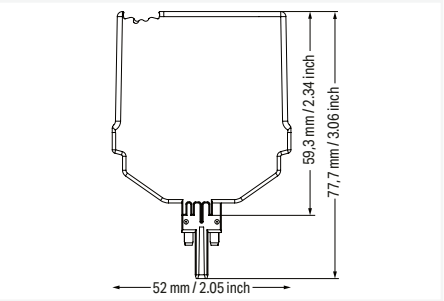


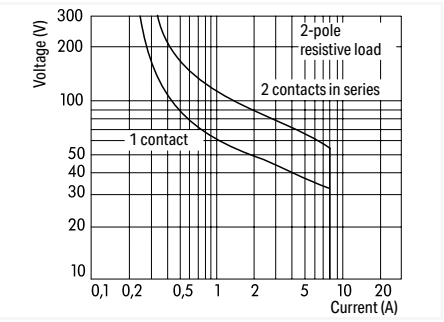
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	14 mA
Load circuit	
Number of break/switch-off contacts	1
Number of make/switch-on contacts	1
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 20.7 mm



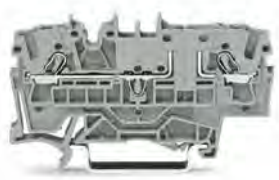
	Item No.	PU
	2042-3044	4





Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-30 … +25 %
Nominal input current at U_N	14 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	20.7 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2

Accessories



2-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	Pack. Unit
gray	2002-1661	50

3-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	Pack. Unit
gray	2002-1761	50

4-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	Pack. Unit
gray	2002-1861	50

End and intermediate plate; 1 mm thick		
Color	Item No.	Pack. Unit
orange	2002-1692	100 (4 x 25)
gray	2002-1691	100 (4 x 25)

End and intermediate plate; 1 mm thick		
Color	Item No.	Pack. Unit
orange	2002-1792	100 (4 x 25)
gray	2002-1791	100 (4 x 25)

End and intermediate plate; 1 mm thick		
Color	Item No.	Pack. Unit
orange	2002-1892	100 (4 x 25)
gray	2002-1891	100 (4 x 25)

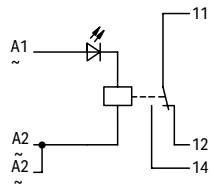
Accessories

2-conductor carrier terminal block; with additional slot for adjacent jumper, for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	**Item No.**	Pack. Unit
gray	**2002-1961**	50

End and intermediate plate; 1 mm thick		
Color	**Item No.**	Pack. Unit
orange	**2002-1992**	100 (4 x 25)
gray	**2002-1991**	100 (4 x 25)

Relay module ▶ Nominal input voltage U_N: 115 VAC ▶ Limiting continuous current: 7 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

Similar to illustration



Item No.	PU
286-507	15

Control circuit	
Nominal input voltage U_N	115 VAC
Input voltage range	±10 %
Nominal input current at U_N	7 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	7 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1750 VA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

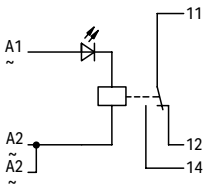
Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 7 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm

Similar to illustration



Item No.	PU
286-508	15

Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	7 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1750 VA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	5 … 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

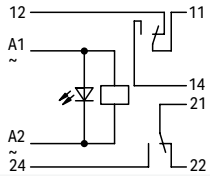
Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 7 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 20 mm

Similar to illustration



Item No.	PU
286-516	15

Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 0.15
Limiting continuous current	7 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1750 VA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

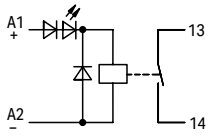
Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-638	20 (1)

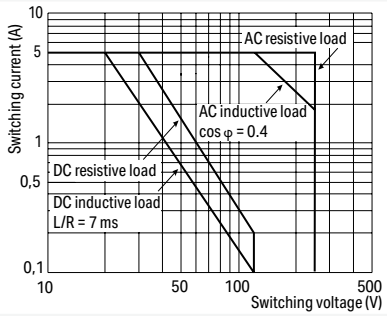
Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of make/switch-on contacts: 1 ▶ Status indicator: Red LED ▶ Width: 10 mm



Item No.	PU
286-364	25



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Mechanical life	50 x 10^3 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-608	40 (1)

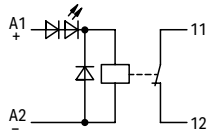
Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-618	40 (1)

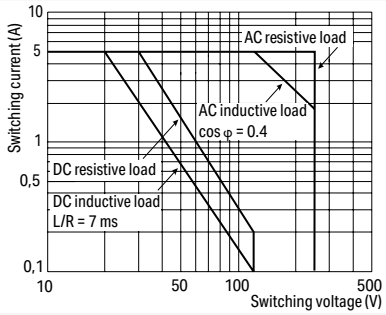
Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-762	30 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 5 A ▶ Number of break/switch-off contacts: 1 ▶ Status indicator: Red LED ▶ Width: 10 mm



Item No.	PU
286-368	25



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	21 mA
Load circuit	
Number of break/switch-off contacts	1
Contact material (relay)	AgNi
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	3 ms
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-608	40 (1)

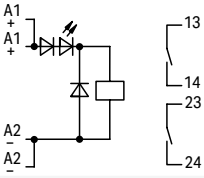
Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-618	40 (1)

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-762	30 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of make/switch-on contacts: 2 ▶ Status indicator: Red LED ▶ Width: 20 mm



Item No.	PU
286-328	10

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of make/switch-on contacts	2
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 15 A / 1 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	1 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	50 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (load/load circuit)	Functional insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 93 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

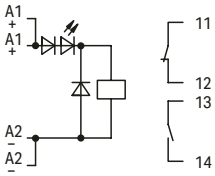
Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-638	20 (1)

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of break/switch-off contacts: 1 ▶ Number of make/switch-on contacts: 1 ▶ Status indicator: Red LED ▶ Width: 20 mm



Item No.	PU
286-320	10

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	8 mA
Load circuit	
Number of break/switch-off contacts	1
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 15 A / 1 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	1 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	50 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

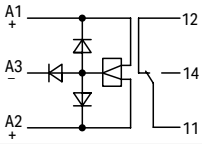
Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-638	20 (1)

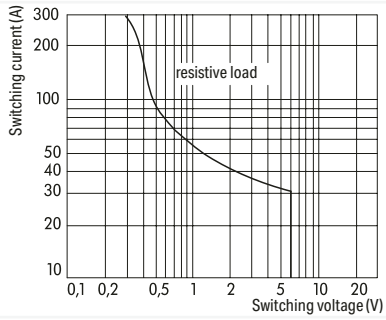
Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 6 A ▶ Number of changeover/switchover contacts: 1 ▶ Bistable relay ▶ Width: 15 mm



Item No.	PU
286-380	15



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	51 mA
Functions	Set (closed 11-14 contacts): A2; Reset (closed 11-12 contacts): A1
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	10 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

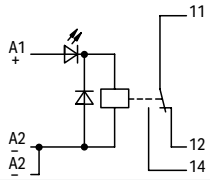
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 7 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 15 mm



Item No.	PU
286-304	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	20 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 0.15
Limiting continuous current	7 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1750 VA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

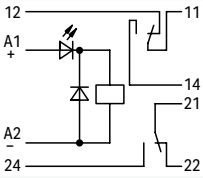
Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 7 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 20 mm

Similar to illustration



Item No.	PU
286-312	10

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	22 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 0.15
Limiting continuous current	7 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1750 VA
Pull-in time (typ.)	18 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	2 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-638	20 (1)

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Accessories

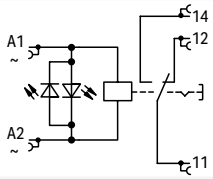
WSB marker card; WSB marker width: 4 mm; 10 strips with 10 markers/card

Marking	Item No.	Pack. Unit
K	209-782	50
1 ... 10 (10 x)	209-702	50
A1; A2; 13; 14	209-952	50
A1; A2; 11; 12	209-953	50
11; 12; 14; A1; A2; A2; 11; 12; 14	209-994	50
12; A1; A2; 24; 11; 14; 21; 22	209-995	50
A1; A1; A2; A2; 11; 12; 13; 14; 23; 24	209-693	50
12; A1; A2; 23; 24; 11; 13; 14; 21; 22	209-691	50
12; A1; A2; 23; 24; 11; 13; 14; 33; 34	209-690	50
14; A1; A2; 33; 34; 13; 23; 24; 43; 44	209-692	50
A1; A2; 32; 31; 34; 42; 41; 12; 11; 14; 22; 21; 24; 44	249-656	50
L+; 1; L-; L-; 11; 12; 13; 14	209-954	50
A1; A2; A3; 11; 12; 14	249-607	50
A1; A1; A2; A2; 12; 11; 11; 14	209-996	50
A1; A1; St; A2; A2; 12; 11; 11; 14	209-601	50
U1; U2; U3; U4; 0V; 12; 11; 11; 14; 14	209-951	50
U	209-789	50
A1; A2; A2; 1; 3; 2	209-685	50
A1; A2; A2; 1; 2; 2	209-686	50
A1+; A1+; A2-; A2-; 1; RL1; RL2; 2	209-955	50
A1+; A1+; A2-; A2-; 1+; 1+; A; 2-	249-651	50
+/-	209-552	50
1; 2; 3; 0V; +UB; OUT; ERR.; 0V	249-622	50
1; 2; 0V; +UB; OUT; ERR.; 0V	249-623	50
Lin; Lin; Lout; Lout; 24V; UA; UA; 0V	209-957	50
Lin; Lin; Lout; 11; 14; 14; Lin; Lin; Lout	249-654	50
Iin; Iin; Iout; Iout; 24V; 11; 12; 14; 0V	209-997	50
S	209-682	50
V	209-784	50
F1 ... F10	209-787	50
D	209-783	50
+; -; 1; 2; 3; 13; 14; 4; 5; 6	249-608	50
L; N; Ackn.; Failure; Test; N; 14; 24	249-606	50
A1; A2; Ackn.; Failure; 12; 11; 11; 14	249-653	50

WSB marker card; plain; WSB marker width: 4 mm; 10 strips with 10 markers/card

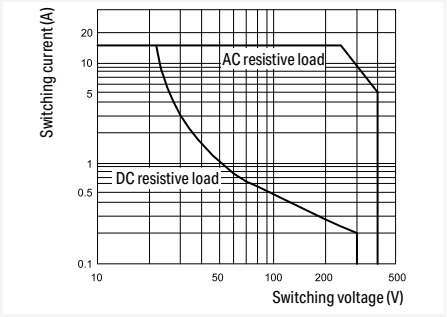
Color	Item No.	Pack. Unit
white	209-701	100
yellow	209-701/000-002	100
red	209-701/000-005	100
blue	209-701/000-006	100
gray	209-701/000-007	100
orange	209-701/000-012	100
light green	209-701/000-017	100
green	209-701/000-023	100
violet	209-701/000-024	100

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED ▶ Width: 17.5 mm



Item No.	PU
789-1544	10

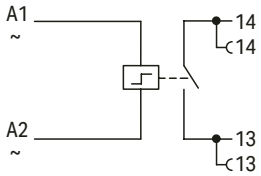
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	±10 %
Nominal input current at U_N	4 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 30 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1

Relay module ▶ Nominal input voltage U_N: 230 VAC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ Latching relay ▶ Status indicator: Red LED ▶ Width: 17.5 mm

Similar to illustration

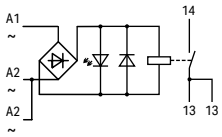


	Item No.	PU
	789-570	10

Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range	-15 … +10 %
Nominal input current at U_N	10 mA
Coil Control	Pulse mode
Minimum pulse length (control input)	40 ms
Minimum break time	180 ms
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 50 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA
Recommended minimum load	10 V / 10 mA
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	100 x 10^3 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 240 min^{-1}
Circuit protection	Circuit breaker: 16 A (max.); Tripping characteristic: B
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1

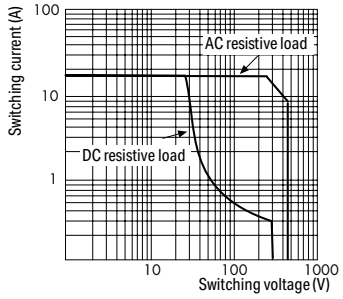
Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm

Similar to illustration



Item No.	PU
789-520	10

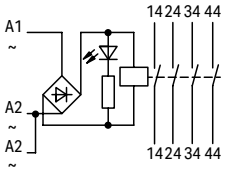
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	32 mA
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1; EN 61810-1

Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 4 A ▶ Number of make/switch-on contacts: 4 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 17.5 mm

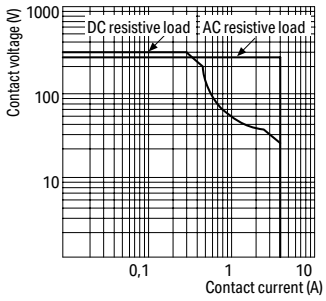
Similar to illustration



	Item No.	PU
	789-552	10

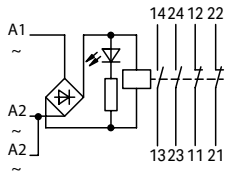
Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	12 mA
Load circuit	
Number of make/switch-on contacts	4
Contact material (relay)	AgNi + Au
Limiting continuous current	4 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Recommended minimum load	0.1 V / 0.1 mA
Pull-in time (typ.)	20 ms
Drop-out time (typ.)	20 ms
Bounce time (typ.)	1 ms
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	230 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	0.75 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1; EN 61810-1

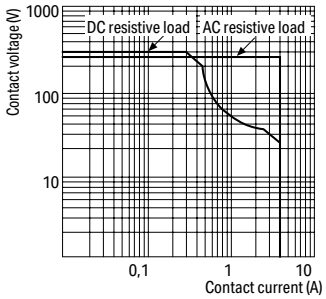
Relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 4 A ▶ Number of break/switch-off contacts: 2 ▶ Number of make/switch-on contacts: 2 ▶ Gold contacts ▶ Status indicator: Red LED ▶ Width: 17.5 mm



Item No.	PU
789-536	10

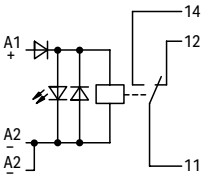
Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	12 mA
Load circuit	
Number of break/switch-off contacts	2
Number of make/switch-on contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	4 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1000 VA; DC (see load limit curve)
Recommended minimum load	0.1 V / 0.1 mA
Pull-in time (typ.)	20 ms
Drop-out time (typ.)	20 ms
Bounce time (typ.)	1 ms
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	230 V
Rated impulse withstand voltage	2.5 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	1.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	0.75 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1; EN 61810-1

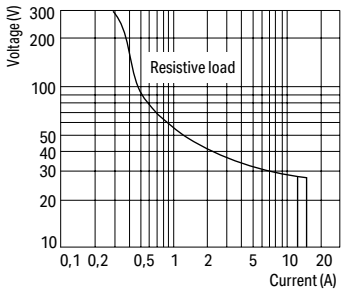
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 1 ▶ Status indicator: Red LED ▶ Width: 17.5 mm



Item No.	PU
789-304	10

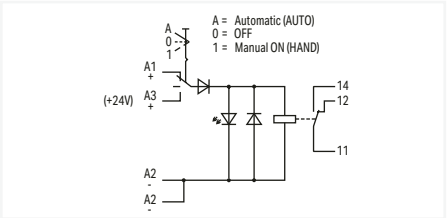
Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

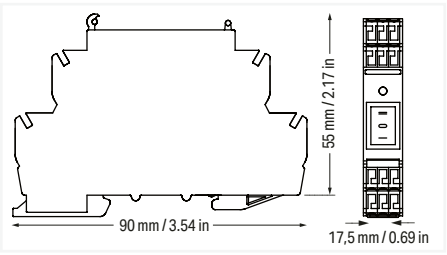


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	19 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi 90/10
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 30 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Mechanical life	3 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 1 ▶ Manual/OFF/Auto switch; For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm



	Item No.	PU
	789-326	10

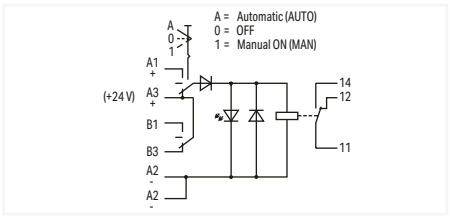


Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

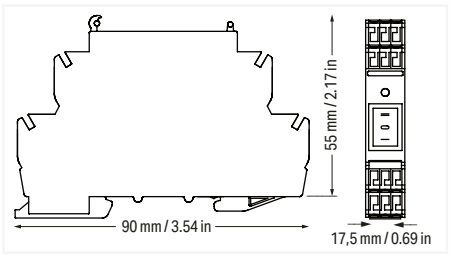
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Power loss (max.) $P_{l\,(max.)}$	0.7 W
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	≤ 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

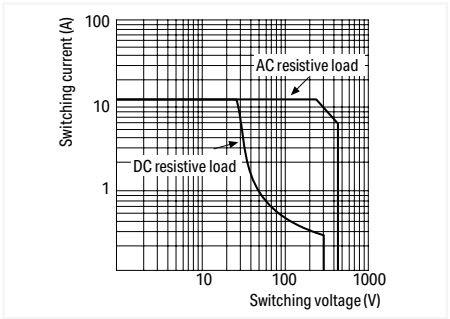
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 1 ▶ Manual/OFF/Auto switch; Switch setting feedback; For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm



	Item No.	PU
	789-329	10

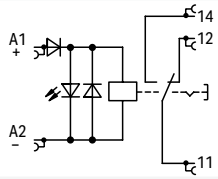


Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



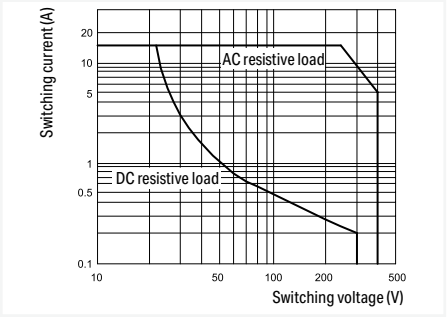
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Power loss (max.) $P_{l\,(max.)}$	0.6 W
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (load circuit/signal contact)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	≤ 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 12 A ▶ Number of changeover/switchover contacts: 1 ▶ With manual operation ▶ Status indicator: Red LED ▶ Width: 17.5 mm



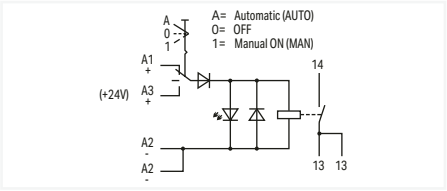
Item No.	PU
789-1341	10

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

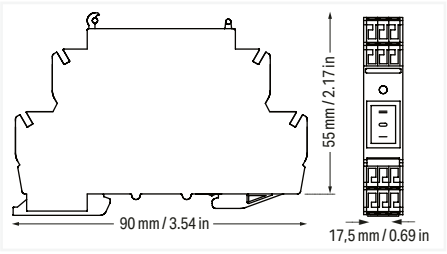


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi
Limiting continuous current	12 A
Inrush current (resistive) max.	(AC) 30 A / 0.02 s; (AC) 24 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 3000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	6 ms
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ Manual/OFF/Auto switch; For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm

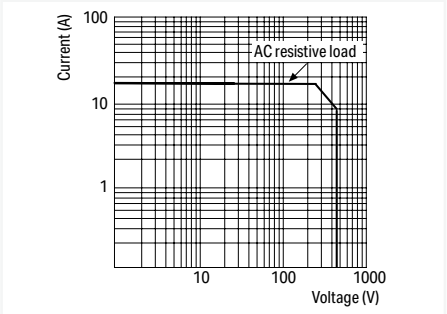


	Item No.	PU
	789-323	10



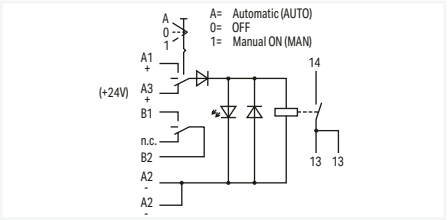
Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

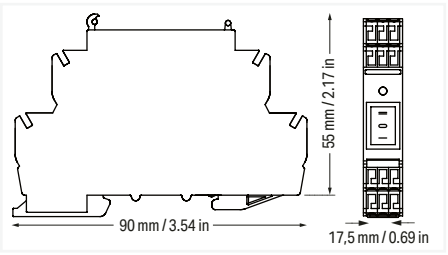


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Power loss (max.) $P_{l\,(max.)}$	0.7 W
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	≤ 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ Manual/OFF/Auto switch; Feedback contact; For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm



	Item No.	PU
	789-325	10

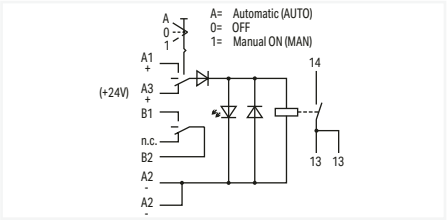


Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

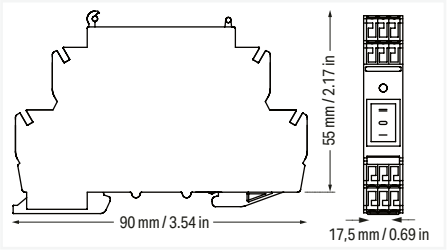
Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +20 %
Nominal input current at U_N	19 mA
Nominal voltage (feedback contact)	24 VDC (SELV/PELV)
Power loss (max.) $P_{l\,(max.)}$	0.7 W
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 120 A / 0.05 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	5 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10^3 switching operations
Mechanical life	10 x 10^6 switching operations
Signal contact	
Switching voltage (max.) (signal contact)	AC 30 V / DC 60 V
Limiting continuous current (signal contact)	4 A
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (load circuit/signal contact)	Reinforced insulation (safe isolation)
Insulation type (control circuit/signal contact)	Basic insulation (100 V working voltage); overvoltage category II
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	≤ 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ Manual/OFF/Auto switch; Feedback contact; Tungsten pre-make contact; For lamp loads ▶ Status indicator: Red LED ▶ Width: 17.5 mm



	Item No.	PU
	789-324	10

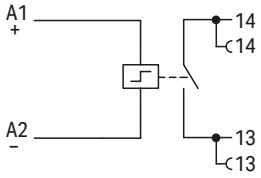


Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-10 … +20 %
Nominal input current at U_N	19 mA
Nominal voltage (feedback contact)	24 VDC (SELV/PELV)
Power loss (max.) $P_{l\,(max.)}$	0.7 W
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$, W pre-make contact
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 165 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA
Pull-in time (typ.)	10 ms
Drop-out time (typ.)	5 ms
Bounce time (typ.)	4 ms
Electrical life (NO; resistive load; 23 °C)	5 x 10^3 switching operations
Mechanical life	5 x 10^6 switching operations
Signal contact	
Switching voltage (max.) (signal contact)	AC 30 V / DC 60 V
Limiting continuous current (signal contact)	4 A
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (load circuit/signal contact)	Reinforced insulation (safe isolation)
Insulation type (control circuit/signal contact)	Basic insulation (100 V working voltage); overvoltage category II
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	≤ 75 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

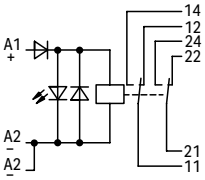
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 16 A ▶ Number of make/switch-on contacts: 1 ▶ Latching relay ▶ Status indicator: Red LED ▶ Width: 17.5 mm



	Item No.	PU
	789-571	10

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	82 mA
Coil Control	Pulse mode
Minimum pulse length (control input)	40 ms
Minimum break time	180 ms
Load circuit	
Number of make/switch-on contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	16 A
Inrush current (resistive) max.	(AC) 50 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 4000 VA
Recommended minimum load	10 V / 10 mA
Electrical life (NO; resistive load; 23 °C)	50 x 10^3 switching operations
Mechanical life	1 x 10^6 switching operations
Switching frequency with/without load (max.)	6 min^{-1} / 240 min^{-1}
Circuit protection	Circuit breaker: 16 A (max.); Tripping characteristic: B
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 60664-1

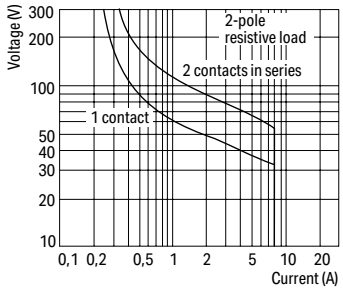
Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ Status indicator: Red LED ▶ Width: 17.5 mm



Item No.	PU
789-312	10

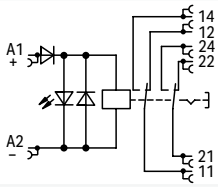
Short description:
WAGO's switching relays (789 Series) serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm (0.689 inch) wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



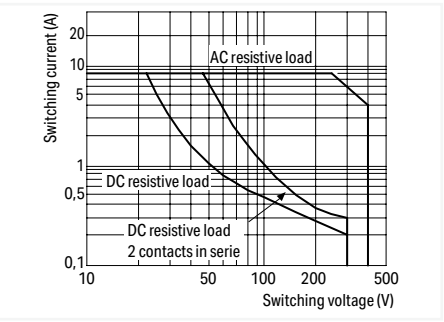
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	-15 … +10 %
Nominal input current at U_N	21 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi 90/10
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 15 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	6 ms
Mechanical life	30 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

Relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Limiting continuous current: 8 A ▶ Number of changeover/switchover contacts: 2 ▶ With manual operation ▶ Status indicator: Red LED ▶ Width: 17.5 mm



Item No.	PU
789-1346	10

Note
To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.



Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	±10 %
Nominal input current at U_N	17 mA
Load circuit	
Number of changeover/switchover contacts	2
Contact material (relay)	AgNi
Limiting continuous current	8 A
Inrush current (resistive) max.	(AC) 16 A / 0.02 s; (AC) 12 A / 4 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 2000 VA; DC (see load limit curve)
Recommended minimum load	12 V / 10 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	8 ms
Bounce time (typ.)	7 ms
Mechanical life	5 x 10^6 switching operations
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1.5 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

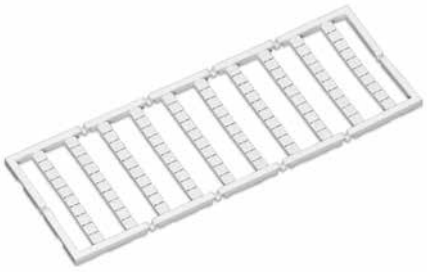
Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	Item No.	PU
	210-720	50

Push-in type jumper bar; 12-way; Nominal current: 16 A; uninsulated

	Item No.	PU
	789-112	100 (4x25)

Accessories



Mini-WSB marker card; Marker width: 5 mm; 10 strips with 10 markers/card		
Marking	Item No.	PU
plain	248-501	50
1 … 10 (10 x)	248-502	50
11 … 20 (10 x)	248-503	50
21 … 30 (10 x)	248-504	50
31 … 40 (10 x)	248-505	50
41 … 50 (10 x)	248-506	50
1 … 50 (2 x)	248-566	50
K1 … K10	248-450	50
K11 … K20	248-451	50
K100	248-452	50
U1 … U10	248-453	50
U11 … U20	248-454	50
U100	248-455	50

Felt-tip pen; for permanent marking		
	Item No.	PU
	210-110	200

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2

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Selection Guide

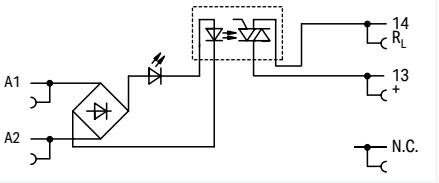
2

Nominal input voltage	Limiting continuous current	Output voltage range	Output						Specialty Functions	For railway applications	Standards/specifications						Item no.
			2-wire connection	3-wire connection	High-side switching	Low-side switching	Zero-voltage switching	2-port			EN 50121-3-2	EN 61000-6-2	EN 61000-6-3	EN 61373	DNV	UL 508	
5 VDC	0.1 A	20 … 28.8 VDC		■	■							■	■	■		■	859-753
5 VDC	0.1 A	3 … 60 VDC	■							■	■	■	■	■		■	859-793
5 VDC	0.1 A	3 … 30 VDC	■							■	■		■	■		■	859-795
5 VDC	0.5 A	20 … 30 VDC		■	■												286-752/002-000
5 VDC	0.5 A	20 … 30 VDC		■	■							■	■	■		■	859-752
5 VDC	0.5 A	24 … 260 VAC	■				■					■	■			■	859-902
5 VDC	1 A	15 … 30 VDC		■		■						■	■	■		■	859-702
5 VDC	5 A	3 … 30 VDC	■									■	■	■			859-738
12 VDC	0.1 A	9 … 60 VDC	■							■	■	■	■	■			859-798
12 VDC	0.5 A	3 … 30 VDC	■									■	■			■	859-797
12 VDC	5 A	3 … 30 VDC	■									■	■	■			859-739
24 VDC	0.1 A	20 … 60 VDC	■									■	■				286-791
24 VDC	0.1 A	20 … 60 VDC	■														286-794
24 VDC	0.1 A	0 … 48 VDC	■									■	■	■		■	857-704
24 VDC	0.1 A	9 … 60 VDC	■					■				■	■	■		■	857-1494
24 VDC	0.1 A	20 … 28.8 VDC		■	■							■	■	■			859-759
24 VDC	0.1 A	9 … 60 VDC	■							■	■	■	■	■		■	859-794
24 VDC	0.1 A	3 … 30 VDC	■							■	■	■	■	■		■	859-796
24 VDC (SELV)	0.1 A	3 … 60 VDC	■							■	■	■	■	■			2042-7204
24 VDC	0.2 A	3 … 60 VDC	■							■	■	■	■			■	859-791
24 VDC	0.25 A	20 … 30 VDC	■					■									286-792
24 VDC	0.5 A	20 … 30 VDC		■	■												286-752
24 VDC	0.5 A	9 … 60 VDC		■	■			■				■	■	■		■	857-1432
24 VDC	0.5 A	4 … 6.25 VDC		■		■						■	■	■		■	859-706
24 VDC	0.5 A	4 … 6.25 VDC		■	■							■	■	■		■	859-756
24 VDC (SELV)	0.5 A	16.8 … 30 VDC		■	■					■	■	■	■	■			2042-7304
24 VDC	1 A	24 … 240 VAC	■				■					■	■	■		■	788-720
24 VDC (SELV)	1 A	24 … 240 VAC	■				■		Multifunctional/multi-time; Time function	■	■			■			857-634
24 VDC	1 A	15 … 30 VDC		■		■						■	■	■		■	859-708
24 VDC	1 A	3 … 30 VDC										■	■			■	859-732
24 VDC	1 A	12 … 260 VAC	■				■					■	■			■	859-734
24 VDC	1 A	6 … 30 VDC		■	■							■	■	■		■	859-758
24 VDC (SELV)	2 A	0 … 30 VDC	■						Multifunctional/multi-time; Time function	■	■			■			857-624
24 VDC	2 A	24 … 240 VAC	■				■					■	■	■		■	857-714
24 VDC	3 A	0 … 30 VDC	■									■	■	■	■	■	857-724
24 VDC	3 A	3 … 31.2 VDC	■					■				■	■	■	■	■	857-1430
24 VDC	3 A	10 … 30 VDC		■		■						■	■	■		■	859-720
24 VDC	3 A	3 … 30 VDC	■									■	■	■			859-761
24 VDC	3 A	3 … 30 VDC	■									■	■	■			859-762
24 VDC	3.5 A	0 … 24 VDC	■									■	■	■		■	788-700
24 VDC	3.5 A	12 … 275 VAC	■				■					■	■	■			788-730
24 VDC	4 A	20 … 30 VDC		■	■												286-723
24 VDC (SELV)	4 A	0 … 53 VDC	■							■	■	■	■	■			2042-7504
24 VDC	4.8 A	3 … 30 VDC	■									■	■			■	859-730
24 VDC	5 A	15 … 40 VDC		■		■											286-721
24 VDC	5 A	0 … 30 VDC	■									■	■	■		■	788-701
24 VDC	5 A	0 … 35 VDC	■									■	■	■			788-710
24 VDC (SELV)	5 A	16.8 … 30 VDC		■	■					■	■	■	■	■			2042-7604
24 VDC	5.5 A	3 … 30 VDC	■									■	■				859-740
24 VDC (SELV)	8 A	1 … 30 VDC	■							■	■	■	■	■			857-734
24 VDC	10 A	3 … 30 VDC	■									■	■			■	859-737

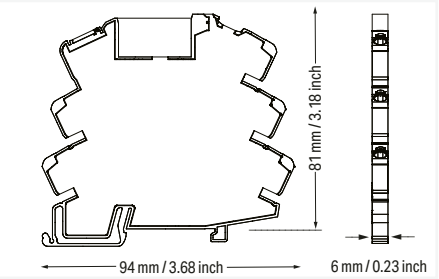
WAGO Solid-State-Relays
Selection Guide

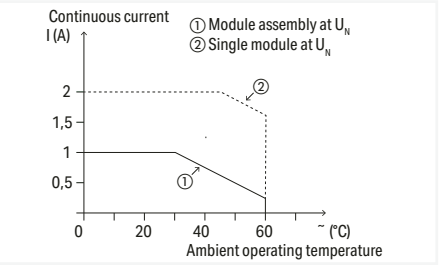
Nominal input voltage	Limiting continuous current	Output voltage range	Output						Specialty Functions	For railway applications	Standards/specifications						Item no.
			2-wire connection	3-wire connection	High-side switching	Low-side switching	Zero-voltage switching	2-port			EN 50121-3-2	EN 61000-6-2	EN 61000-6-3	EN 61373	DNV	UL 508	
12 … 48 VDC	4 A	3 … 53 VDC	■									■	■	■			859-744
24 VAC/VDC	4 A	12 … 275 VAC	■				■					■	■	■		■	788-721
115 VAC/VDC	0.1 A	0 … 48 VDC	■									■	■	■		■	857-707
115 VAC/VDC	2 A	24 … 240 VAC	■				■					■	■	■		■	857-717
115 VAC/VDC	3 A	0 … 30 VDC	■									■	■	■		■	857-727
230 VAC/VDC	0.1 A	0 … 48 VDC	■									■	■	■		■	857-708
230 VAC/VDC	2 A	24 … 240 VAC	■				■					■	■	■		■	857-718
230 VAC/VDC	3 A	0 … 30 VDC	■									■	■	■		■	857-728
230 VAC	0.5 A	20 … 30 VDC		■	■							■	■	■		■	859-772
230 VAC	1 A	15 … 30 VDC		■		■						■	■	■		■	859-712

Solid-state relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 2 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Yellow LED ▶ Width: 6 mm



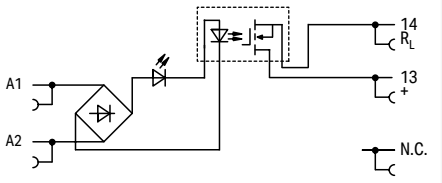
Item No.	PU
857-717	25



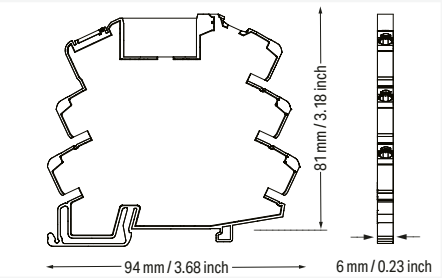


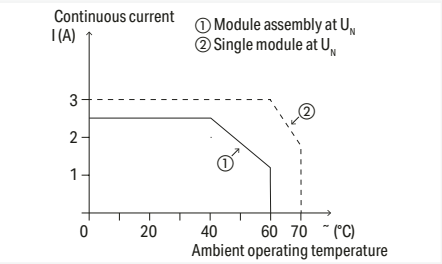
Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range (low level)	0 … 25 VAC/VDC
Input voltage range (high level)	100 … 138 VAC/DC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.6 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-168

Solid-state relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



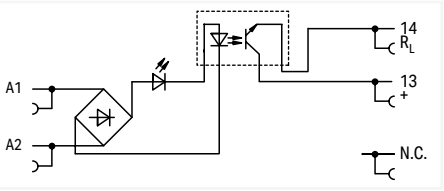
	Item No.	PU
	857-727	25



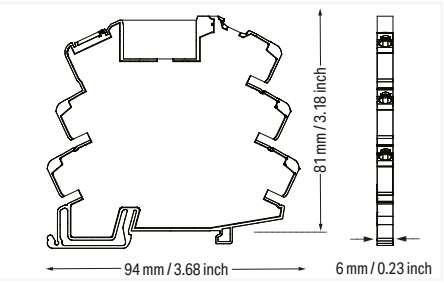


Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range (low level)	0 … 25 VAC/VDC
Input voltage range (high level)	90 … 138 VAC/DC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 0.01 s
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 4.5 ms
Turn-off time	≤ 10 ms
Switching frequency	≤ 20 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-162

Solid-state relay module ▶ Nominal input voltage U_N: 115 VAC/VDC ▶ Output voltage range: 0 … 48 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



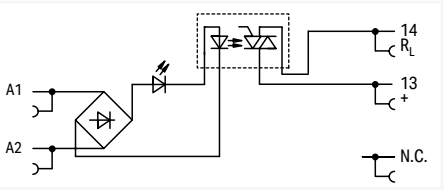
Item No.	PU
857-707	25



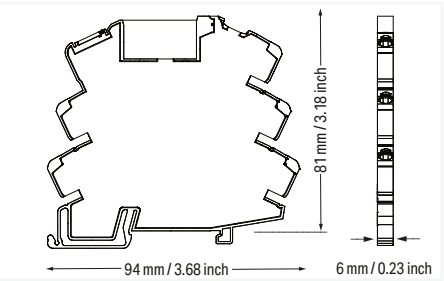
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

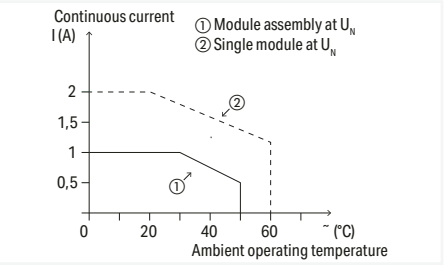
Control circuit	
Nominal input voltage U_N	115 VAC/VDC
Input voltage range (low level)	0 … 25 VAC/VDC
Input voltage range (high level)	100 … 138 VAC/DC
Nominal input current at U_N	5 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	0 … 48 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 4.5 ms
Turn-off time	≤ 10 ms
Switching frequency	≤ 20 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-165

Solid-state relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 2 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Yellow LED ▶ Width: 6 mm



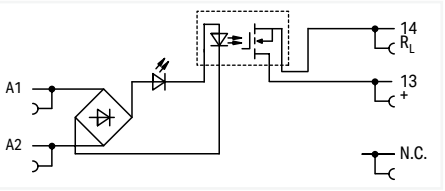
	Item No.	PU
	857-718	25



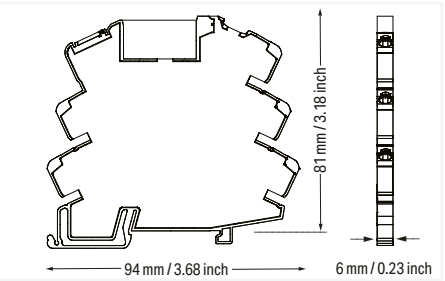


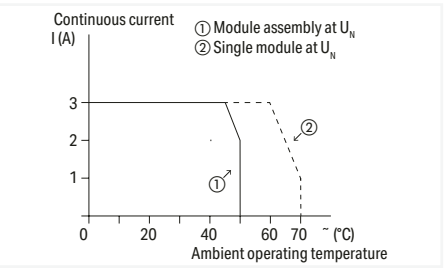
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range (low level)	0 … 60 VAC/VDC
Input voltage range (high level)	200 … 253 VAC/DC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.6 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-168

Solid-state relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



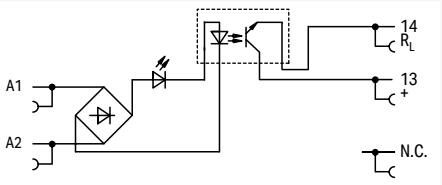
Item No.	PU
857-728	25



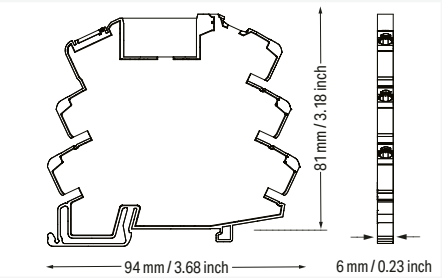


Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range (low level)	0 … 60 VAC/VDC
Input voltage range (high level)	200 … 253 VAC/DC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 0.01 s
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 4.5 ms
Turn-off time	≤ 10 ms
Switching frequency	≤ 20 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-162

Solid-state relay module ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Output voltage range: 0 … 48 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



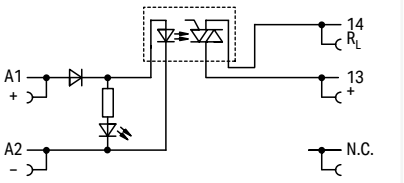
	Item No.	PU
	857-708	25



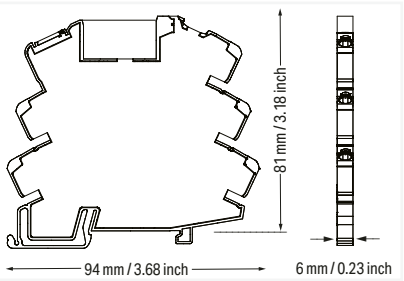
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

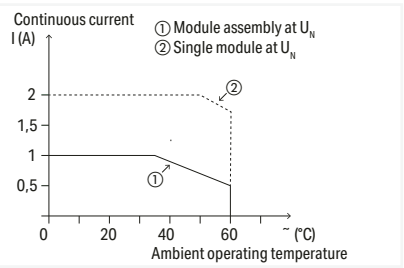
Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range (low level)	0 … 30 VAC/VDC
Input voltage range (high level)	200 … 253 VAC/DC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	0 … 48 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 4.5 ms
Turn-off time	≤ 10 ms
Switching frequency	≤ 20 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-165

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 2 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Yellow LED ▶ Width: 6 mm



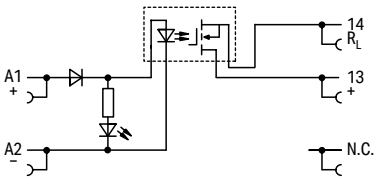
Item No.	PU
857-714	25



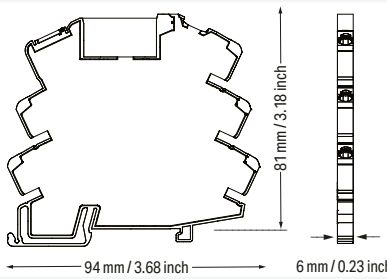


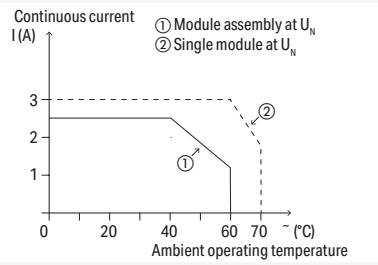
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	20 … 28.8 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.6 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	857-167

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



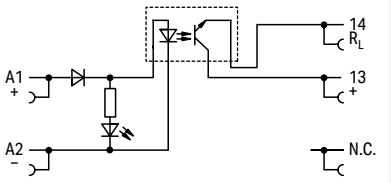
	Item No.	PU
	857-724	25



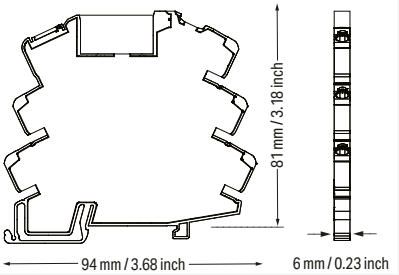


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	18.8 … 31.2 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 0.01 s
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 350 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508; DNV
Basic relay	
WAGO Basic Relay	857-161

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 48 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



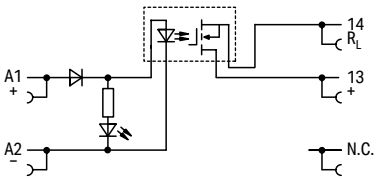
	Item No.	PU
	857-704	25



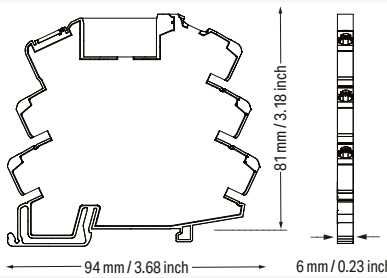
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	9 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	0 … 48 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 1 kHz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508
Basic relay	
WAGO Basic Relay	858-164

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 1 … 30 VDC ▶ Limiting continuous current: 8 A; 6 A (UL) ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm

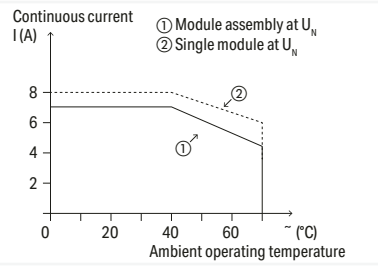


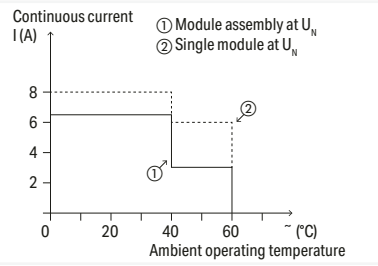
	Item No.	PU
	857-734	25



Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

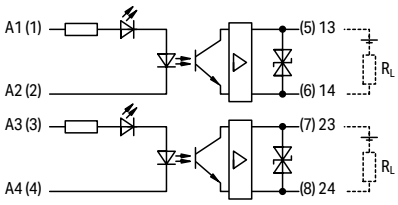
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



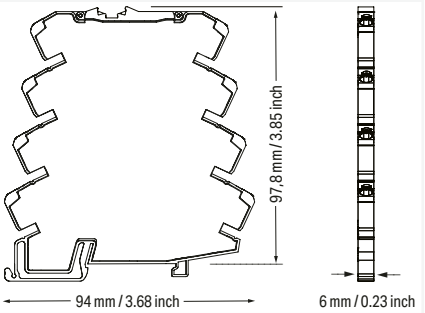


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 4 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	12 mA
Power loss (max.) $P_{l\,(max.)}$	0.3 W
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	8 A; 6 A (UL)
Nominal output voltage	24 VDC (SELV)
Output voltage range	1 … 30 VDC
Voltage drop	≤ 0.8 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	10 mA
Turn-on time	≤ 60 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 500 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature UL (operation at U_N)	-25 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; EN 50121-4
Basic relay	
WAGO Basic Relay	857-181

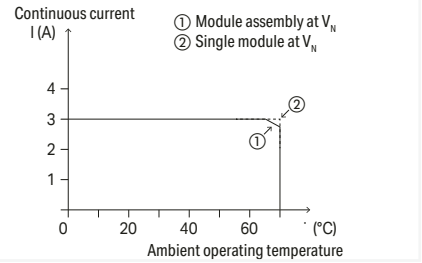
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 31.2 VDC ▶ Limiting continuous current: 3 A ▶ 2-way; 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



Item No.	PU
857-1430	25

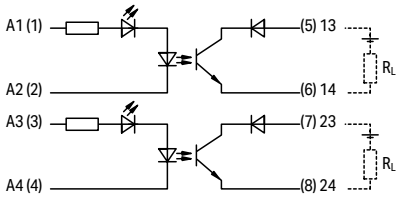


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

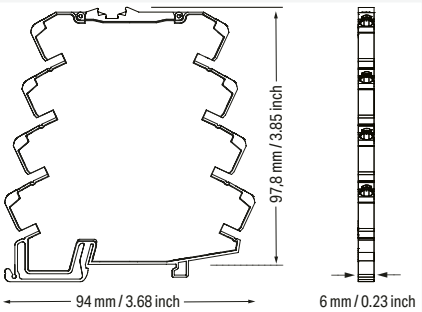


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16.8 … 31.2 VDC
Nominal input current at U_N	8 mA
Load circuit	
Circuit type	2-way; 2-wire connection
Limiting continuous current	3 A
Nominal output voltage	24 VDC
Output voltage range	3 … 31.2 VDC
Voltage drop	≤ 0.2 VDC
Leakage current at rated voltage	≤ 250 µA
Turn-on time	≤ 25 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 300 Hz
Short circuit protection (load circuit)	3.15 A; Slow (T)
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	3.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (load/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 70 °C / 2 A); DNV

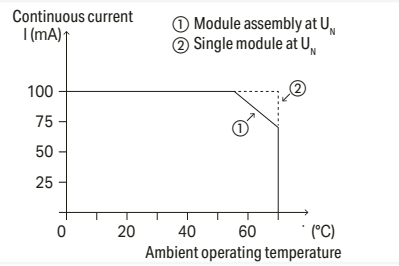
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 9 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-way; 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm



Item No.	PU
857-1494	25

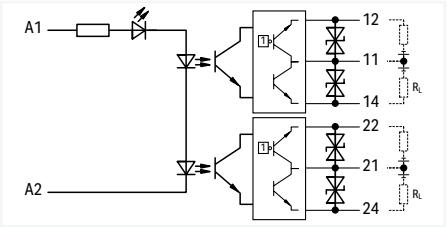


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

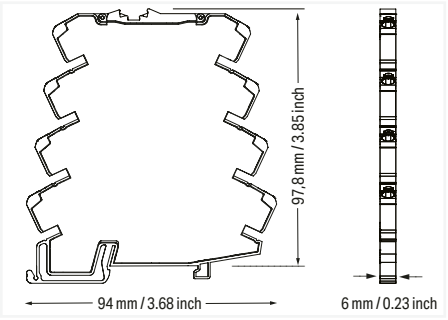


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16.8 … 31.2 VDC
Nominal input current at U_N	6 mA
Load circuit	
Circuit type	2-way; 2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	9 … 60 VDC
Voltage drop	≤ 2 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 20 µs
Turn-off time	≤ 120 µs
Switching frequency	≤ 1.5 kHz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	3.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (load/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 50 °C / 0.1 A)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 9 … 60 VDC ▶ Limiting continuous current: 0.5 A ▶ 2-way; 3-wire connection; High-side switching ▶ Status indicator: Yellow LED ▶ Width: 6 mm



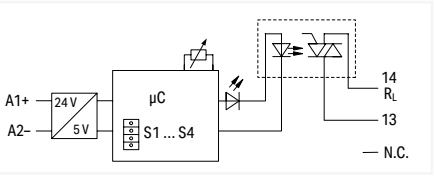
Item No.	PU
857-1432	25



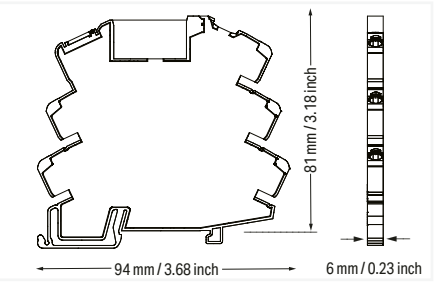
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	6 mA
Load circuit	
Circuit type	2-way; 3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC
Output voltage range	9 … 60 VDC
Voltage drop	≤ 1.5 VDC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	0.5 mA
Turn-on time	≤ 25 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 1.5 kHz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Dielectric strength (channel/channel) (AC, 1 min.)	3.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	3.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (load/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 70 °C / 0.3 A)

Solid-state relay module; Timer relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 1 A ▶ 2-wire connection; Zero-voltage switching ▶ Multifunctional/multi-time; Time function; For railway applications ▶ Status indicator: Yellow LED ▶ Width: 6 mm

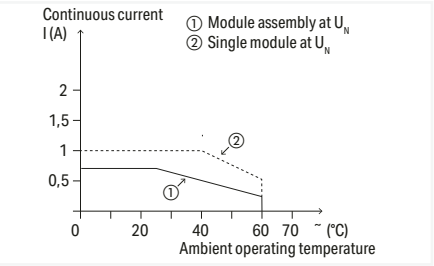


Item No.	PU
857-634	1



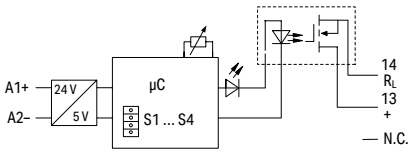
Features:
- 4 functions
- Function and time range adjustable via DIP switch
- Potentiometer for fine adjustment of the time intervals

Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

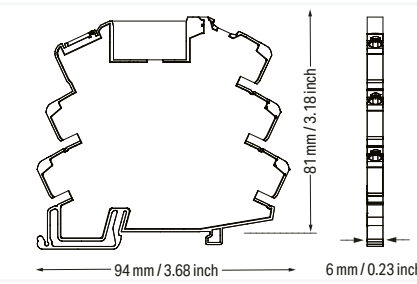


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	-15 … +30 %
Nominal input current at U_N	10 mA
Time range	0.1 … 10 s; 3 … 300 s; 0.3 … 30 min; 3 … 300 min
Reset time	50 ms
Repeat accuracy	1 %
Functions	On-delay; Single-shot leading edge; On-delay and single-shot leading edge (1 s fixed); Flashing
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	1 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	10 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2
Basic relay	
WAGO Basic Relay	857-167

Solid-state relay module; Timer relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 2 A ▶ 2-wire connection ▶ Multifunctional/multi-time; Time function; For railway applications ▶ Status indicator: Yellow LED ▶ Width: 6 mm



Item No.	PU
857-624	1



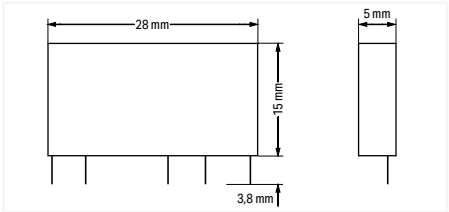
Features:
- 4 functions
- Function and time range adjustable via DIP switch
- Potentiometer for fine adjustment of the time intervals

Safety Information
Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.

Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	-15 … +30 %
Nominal input current at U_N	10 mA
Time range	0.1 … 10 s; 3 … 300 s; 0.3 … 30 min; 3 … 300 min
Reset time	50 ms
Repeat accuracy	1 %
Functions	On-delay; Single-shot leading edge; On-delay and single-shot leading edge (1 s fixed); Flashing
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	2 A
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 2 ms
Short circuit protection (load circuit)	2 A; Fast (F); testing based on EN 61812-1 with a short-circuit current of 100 ADC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2
Basic relay	
WAGO Basic Relay	857-161

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 2 A

	Item No.	PU
	857-167	20

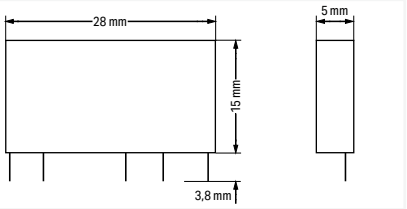


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	20 … 28.8 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.6 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 3 A

	Item No.	PU
	857-161	20



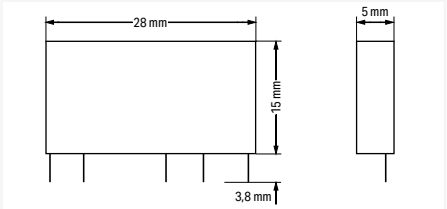
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	18.8 … 31.2 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 0.01 s
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 350 Hz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 48 VDC ▶ Limiting continuous current: 0.1 A

Similar to illustration

Item No.	PU
857-164	20



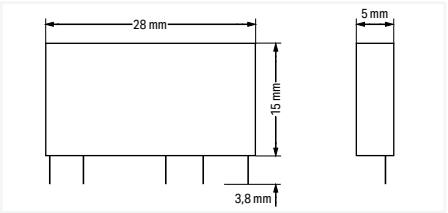
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	0 … 48 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 1 kHz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 1 … 30 VDC ▶ Limiting continuous current: 8 A

Similar to illustration

Item No.	PU
857-181	20

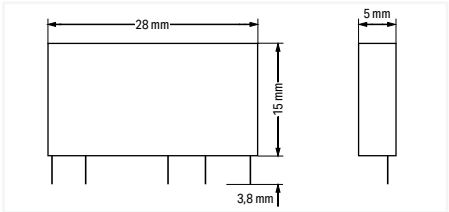


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 4 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	8 A
Nominal output voltage	24 VDC (SELV)
Output voltage range	1 … 30 VDC
Voltage drop	≤ 0.8 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	10 mA
Turn-on time	≤ 60 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 500 Hz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 60 VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 2 A

	Item No.	PU
	857-168	20

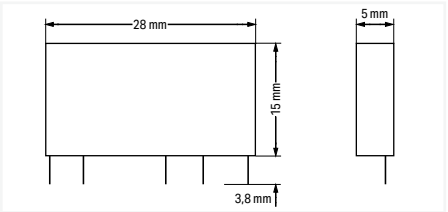


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	60 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	35 … 72 VDC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.6 VAC
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 60 VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 3 A

	Item No.	PU
	857-162	20



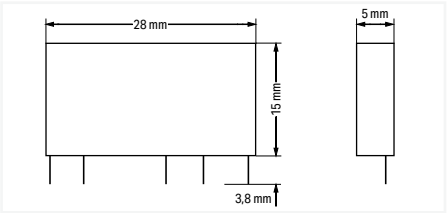
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	60 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	35 … 72 VDC
Nominal input current at U_N	3 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Inrush current (resistive) max.	(AC) 15 A / 0.01 s
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.12 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 350 Hz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Basic solid-state relay ▶ Nominal input voltage U_N: 60 VDC ▶ Output voltage range: 0 … 48 VDC ▶ Limiting continuous current: 0.1 A

Similar to illustration

Item No.	PU
857-165	20

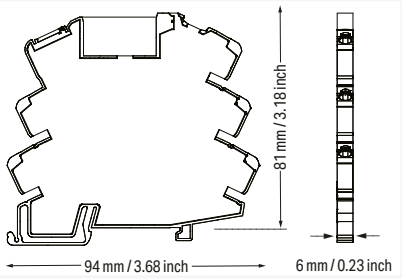


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

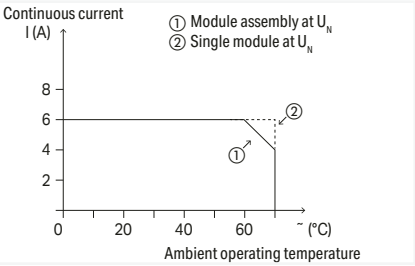
Control circuit	
Nominal input voltage U_N	60 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	35 … 72 VDC
Nominal input current at U_N	3 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	0 … 48 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 1 µA
Switching current (min.)	50 µA
Turn-on time	≤ 100 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 1 kHz
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	5 mm x 15 mm x 28 mm
Mounting type	Pluggable module
Insulation material (main housing)	Polyamide (PA66)

Socket without relay ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Limiting continuous current: 6 A ▶ Status indicator: Yellow LED

Item No.	PU
857-104	25



Note
The relay/SSR used influences the electrical properties of the module.

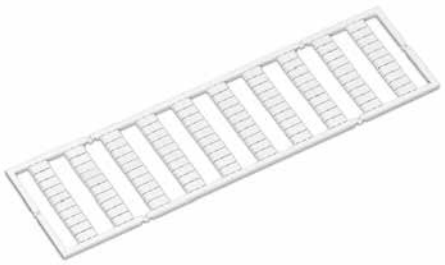


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Load circuit	
Limiting continuous current	6 A
Switching Voltage, Max.	250 VAC
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Rated impulse withstand voltage	4 kV
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 81 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; UR

Accessories
857 Series

Push-in type jumper bar; light gray; insulated; 18 A		
Description	**Item No.**	Pack. Unit
2-way	**859-402**	200 (8 x 25)
3-way	**859-403**	200 (8 x 25)
4-way	**859-404**	200 (8 x 25)
5-way	**859-405**	200 (8 x 25)
6-way	**859-406**	100 (4 x 25)
7-way	**859-407**	100 (4 x 25)
8-way	**859-408**	100 (4 x 25)
9-way	**859-409**	100 (4 x 25)
10-way	**859-410**	100 (4 x 25)
Item no. suffixes for colored push-in type jumper bars		
yellow	**... /000-029**	
red	**... /000-005**	
blue	**... /000-006**	

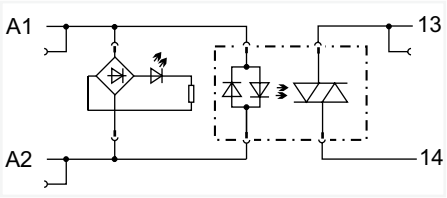
Comb-style jumper bar; insulated; for conductor entry		
Description	**Item No.**	Pack. Unit
2-way	**281-482**	100



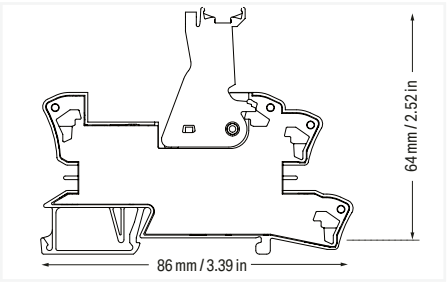
WMB marker card; 10 strips with 10 markers; white; with black printing		
Marking	**Item No.**	Pack. Unit
plain	**793-501**	5 cards
1 ... 10 (10 x)	**793-502**	5 cards
11 ... 20 (10 x)	**793-503**	5 cards
21 ... 30 (10 x)	**793-504**	5 cards
31 ... 40 (10 x)	**793-505**	5 cards
41 ... 50 (10 x)	**793-506**	5 cards
1 ... 50 (2 x)	**793-566**	5 cards

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade		
	Item No.	Pack. Unit
	210-720	50

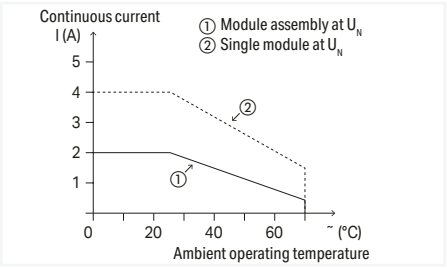
Solid-state relay module ▶ Nominal input voltage U_N: 24 VAC/VDC ▶ Output voltage range: 12 … 275 VAC (50/60 Hz) ▶ Limiting continuous current: 4 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Red LED ▶ Width: 15 mm



Item No.	PU
788-721	15

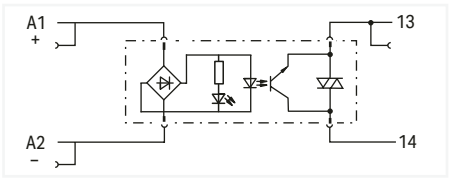


Note
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

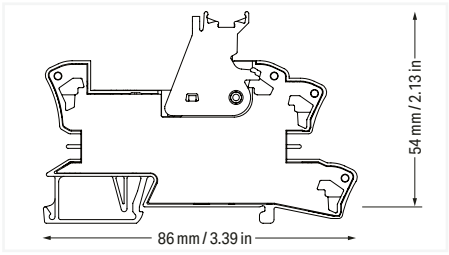


Control circuit	
Nominal input voltage U_N	24 VAC/VDC
Input voltage range (low level)	0 … 2.5 VAC/VDC
Input voltage range (high level)	15 … 30 VAC/DC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	4 A
Nominal output voltage	230 VAC
Output voltage range	12 … 275 VAC (50/60 Hz)
Voltage drop	≤ 1.1 VAC
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +70 °C
Ambient temperature UL (operation at U_N)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 40 °C / 2.5 A)

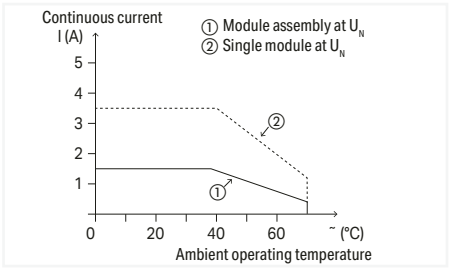
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 12 … 275 VAC ▶ Limiting continuous current: 3.5 A; 1.3 A (UL) ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Green LED ▶ Width: 15 mm

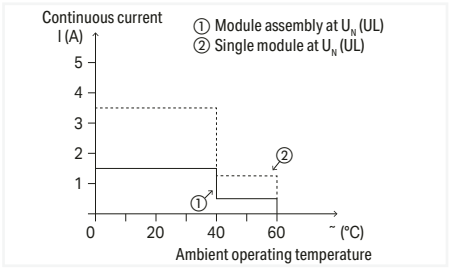


	Item No.	PU
	788-730	8



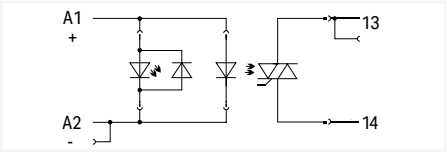
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



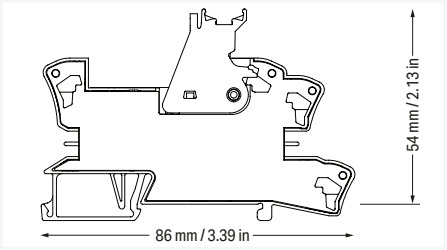


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 3 VDC
Input voltage range (high level)	10 … 30 VDC
Nominal input current at U_N	20 mA
Power loss (max.) $P_{l\,(max.)}$	0.5 W
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	3.5 A; 1.3 A (UL)
Nominal output voltage	230 VAC
Output voltage range	12 … 275 VAC
Voltage drop	≤ 1.1 VAC
Switching current (min.)	1 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature UL (operation at U_N)	-25 … +60 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	≤ 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373
Basic relay	
WAGO Basic Relay	788-755

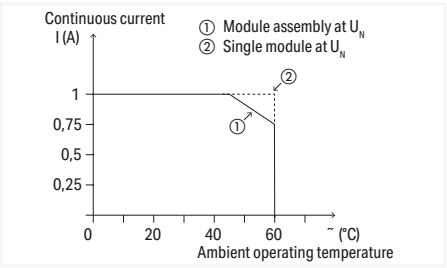
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 24 … 240 VAC ▶ Limiting continuous current: 1 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Red LED ▶ Width: 15 mm



Item No.	PU
788-720	20

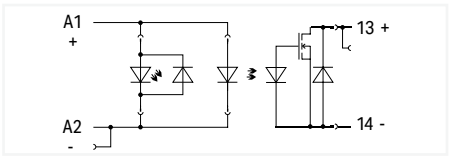


Note
A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements.

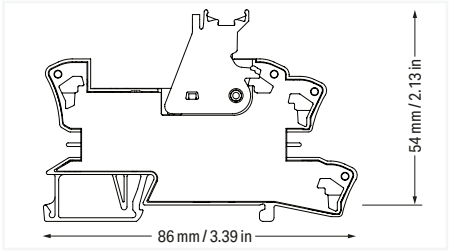


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 4 VDC
Input voltage range (high level)	18 … 30 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	1 A
Nominal output voltage	230 VAC
Output voltage range	24 … 240 VAC
Voltage drop	≤ 1.1 VAC
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.75 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature UL (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 40 °C / 2.5 A)

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 24 VDC ▶ Limiting continuous current: 3.5 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 15 mm

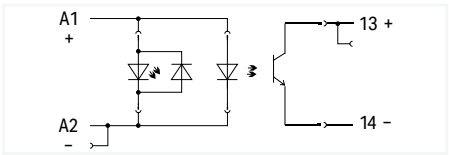


	Item No.	PU
	788-700	20

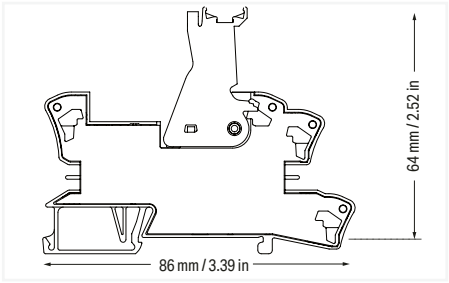


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 8 VDC
Input voltage range (high level)	18 … 30 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3.5 A
Nominal output voltage	24 VDC
Output voltage range	0 … 24 VDC
Voltage drop	≤ 0.1 VDC
Turn-on time	≤ 50 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 100 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature UL (operation at U_N)	-40 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508

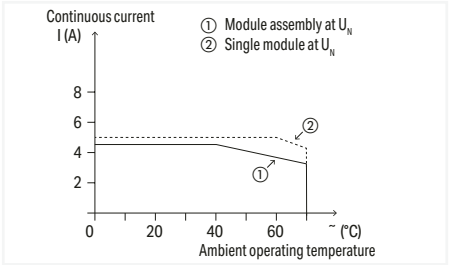
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 30 VDC ▶ Limiting continuous current: 5 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 15 mm



Item No.	PU
788-701	15

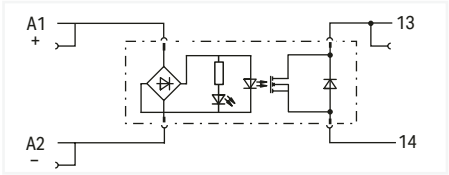


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

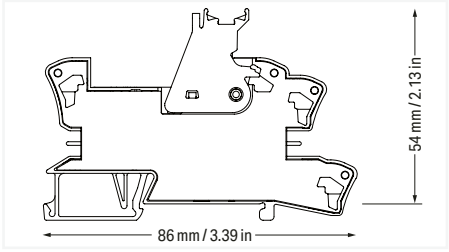


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 2.5 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	5 A
Nominal output voltage	24 VDC
Output voltage range	0 … 30 VDC
Voltage drop	≤ 0.3 VDC
Turn-on time	≤ 50 µs
Turn-off time	≤ 600 µs
Switching frequency	≤ 100 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; EN 61010-2-201; UL 508 (max. 40 °C / 4.7 A)
Basic relay	
WAGO Basic Relay	788-751

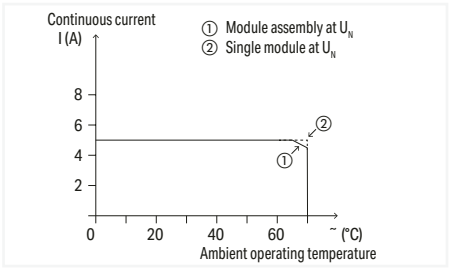
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 35 VDC ▶ Limiting continuous current: 5 A; 4.5 A (UL) ▶ 2-wire connection ▶ Status indicator: Green LED ▶ Width: 15 mm

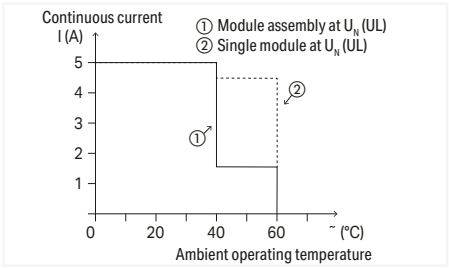


	Item No.	PU
	788-710	8



Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.





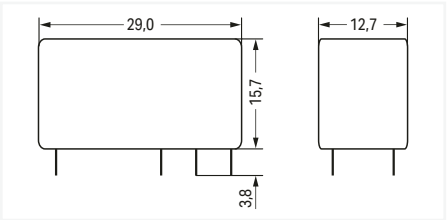
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 3 VDC
Input voltage range (high level)	10 … 30 VDC
Nominal input current at U_N	20 mA
Power loss (max.) $P_{l\,(max.)}$	0.5 W
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	5 A; 4.5 A (UL)
Nominal output voltage	24 VDC
Output voltage range	0 … 35 VDC
Voltage drop	≤ 0.3 VDC
Switching current (min.)	1 mA
Turn-on time	≤ 50 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 3 kHz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature UL (operation at U_N)	-25 … +60 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	≤ 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373
Basic relay	
WAGO Basic Relay	788-754

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 12 … 275 VAC ▶ Limiting continuous current: 3.5 A ▶ Width: 12.7 mm

Similar to illustration

	Item No.	PU
	788-755	20

Dimensions in mm



Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

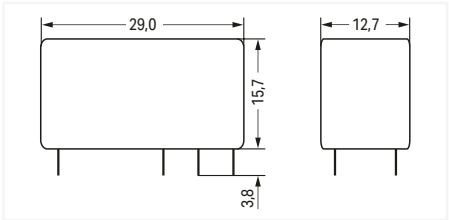
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 9 VDC
Input voltage range (high level)	10 … 30 VDC
Nominal input current at U_N	12 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	3.5 A
Inrush current (resistive) max.	(AC) 120 A
Nominal output voltage	230 VAC
Output voltage range	12 … 275 VAC
Voltage drop	≤ 1.1 VAC
Switching current (min.)	50 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

Basic solid-state relay ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 0 … 35 VDC ▶ Limiting continuous current: 5 A ▶ Width: 12.7 mm

Similar to illustration

	Item No.	PU
	788-754	20

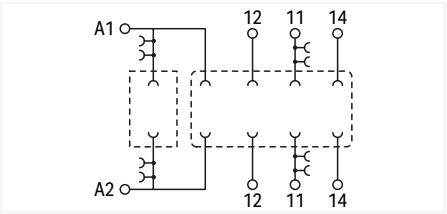
Dimensions in mm



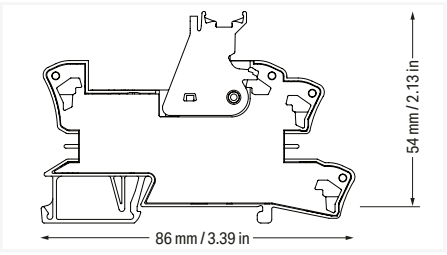
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 9 VDC
Input voltage range (high level)	10 … 30 VDC
Nominal input current at U_N	11 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	5 A
Nominal output voltage	24 VDC
Output voltage range	0 … 35 VDC
Voltage drop	≤ 0.3 VDC
Switching current (min.)	1 mA
Turn-on time	≤ 50 µs
Turn-off time	≤ 250 µs
Switching frequency	≤ 3 kHz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Ambient temperature (operation at U_N)	-30 … +80 °C
Ambient temperature (storage)	-40 … +100 °C
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	12.7 mm x 15.7 mm x 29 mm
Mounting type	Pluggable module
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

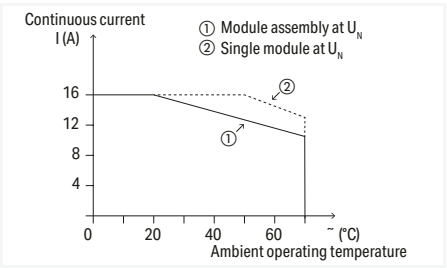
Socket without relay ▸ Nominal input voltage U_N: 230 VAC/VDC ▸ Limiting continuous current: 16 A ▸ Number of changeover/switchover contacts: 1



	Item No.	PU
	788-100	20

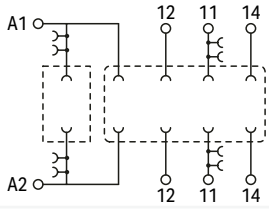


Note
The specified technical data are maximum values. They may be limited by the accessories used.

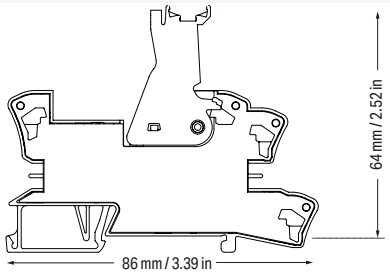


Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	1
Limiting continuous current	16 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 54 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

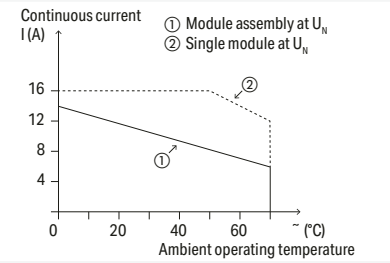
Socket without relay ▶ Nominal input voltage U_N: 230 VAC/VDC ▶ Limiting continuous current: 16 A ▶ Number of changeover/switchover contacts: 1



	Item No.	PU
	788-101	15



Note
The specified technical data are maximum values. They may be limited by the accessories used.



Control circuit	
Nominal input voltage U_N	230 VAC/VDC
Input voltage range	0 … 250 VAC/VDC
Nominal frequency range	50 … 60 Hz
Load circuit	
Number of changeover/switchover contacts	1
Limiting continuous current	16 A
Switching Voltage, Max.	300 VAC
Nominal frequency range	≤60 Hz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	3
Dielectric strength (control/load circuit) (AC, 1 min)	3.6 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.34 … 2.5 mm² / 0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 86 mm x 64 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

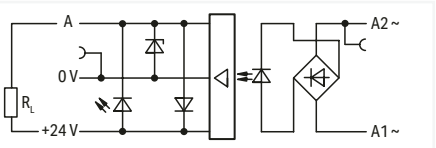
WSB marker card; WSB marker width: 4 mm; 10 strips with 10 markers/card

Marking	Item No.	PU
K	209-782	50
1 ... 10 (10 x)	209-702	50
A1; A2; 13; 14	209-952	50
A1; A2; 11; 12	209-953	50
11; 12; 14; A1; A2; A2; 11; 12; 14	209-994	50
12; A1; A2; 24; 11; 14; 21; 22	209-995	50
A1; A1; A2; A2; 11; 12; 13; 14; 23; 24	209-693	50
12; A1; A2; 23; 24; 11; 13; 14; 21; 22	209-691	50
12; A1; A2; 23; 24; 11; 13; 14; 33; 34	209-690	50
14; A1; A2; 33; 34; 13; 23; 24; 43; 44	209-692	50
A1; A2; 32; 31; 34; 42; 41; 12; 11; 14; 22; 21; 24; 44	249-656	50
L+; 1; L-; L-; 11; 12; 13; 14	209-954	50
A1; A2; A3; 11; 12; 14	249-607	50
A1; A1; A2; A2; 12; 11; 11; 14	209-996	50
A1; A1; St; A2; A2; 12; 11; 11; 14	209-601	50
U1; U2; U3; U4; 0V; 12; 11; 11; 14; 14	209-951	50
U	209-789	50
A1; A2; A2; 1; 3; 2	209-685	50
A1; A2; A2; 1; 2; 2	209-686	50
A1+; A1+; A2-; A2-; 1; RL1; RL2; 2	209-955	50
A1+; A1+; A2-; A2-; 1+; 1+; A; 2-	249-651	50
+/-	209-552	50
1; 2; 3; 0V; +UB; OUT; ERR.; 0V	249-622	50
1; 2; 0V; +UB; OUT; ERR.; 0V	249-623	50
Lin; Lin; Lout; Lout; 24V; UA; UA; 0V	209-957	50
Lin; Lin; Lout; 11; 14; 14; Lin; Lin; Lout	249-654	50
Iin; Iin; Iout; Iout; 24V; 11; 12; 14; 0V	209-997	50
S	209-682	50
V	209-784	50
F1 ... F10	209-787	50
D	209-783	50
+; -; 1; 2; 3; 13; 14; 4; 5; 6	249-608	50
L; N; Ackn.; Failure; Test; N; 14; 24	249-606	50
A1; A2; Ackn.; Failure; 12; 11; 11; 14	249-653	50

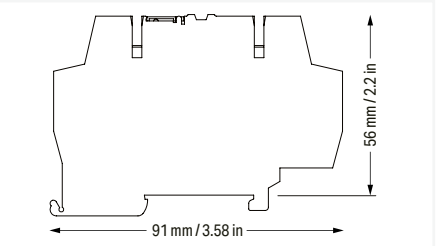
WSB marker card; plain; WSB marker width: 4 mm; 10 strips with 10 markers/card

Color	Item No.	PU
white	209-701	100
yellow	209-701/000-002	100
red	209-701/000-005	100
blue	209-701/000-006	100
gray	209-701/000-007	100
orange	209-701/000-012	100
light green	209-701/000-017	100
green	209-701/000-023	100
violet	209-701/000-024	100

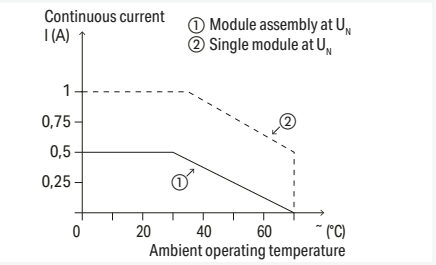
Optocoupler module ▶ Nominal input voltage U_N: 230 VAC ▶ Output voltage range: 15 … 30 VDC ▶ Limiting continuous current: 1 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-712	1

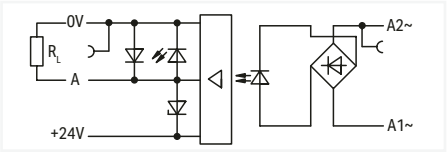


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

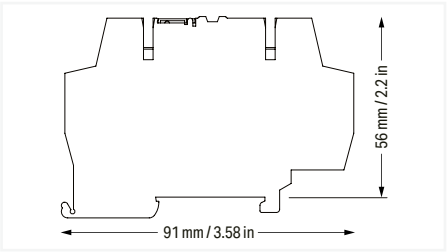


Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range (low level)	0 … 90 VAC
Input voltage range (high level)	175 … 253 VAC
Nominal input current at U_N	0.8 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	1 A
Peak output current	4 A
Nominal output voltage	24 VDC
Output voltage range	15 … 30 VDC
Voltage drop	≤ 1.5 VDC
Leakage current at rated voltage	≤ 10 µA
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Type of circuits	Mains circuits
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 230 VAC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



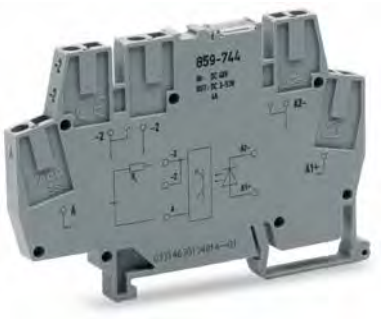
Item No.	PU
859-772	1

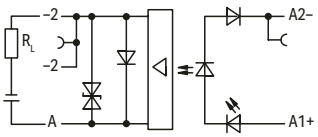


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

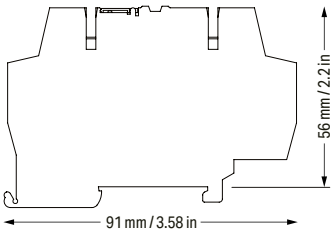
Control circuit	
Nominal input voltage U_N	230 VAC
Input voltage range (low level)	0 … 90 VAC
Input voltage range (high level)	175 … 270 VAC
Nominal input current at U_N	1 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 10 µA
Output closed-circuit current (without load) max.	12 mA
Turn-on time	≤ 30 ms
Turn-off time	≤ 30 ms
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Type of circuits	Mains circuits
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 12 … 48 VDC ▶ Output voltage range: 3 … 53 VDC ▶ Limiting continuous current: 4 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm

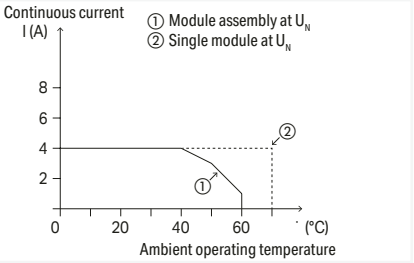




	Item No.	PU
	859-744	10

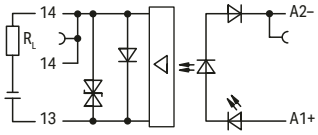


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



Control circuit	
Nominal input voltage U_N	12 … 48 VDC
Input voltage range (low level)	0 … 4 VDC
Input voltage range (high level)	10 … 53 VDC
Nominal input current at U_N	5 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	4 A
Peak output current	30 A
Output voltage range	3 … 53 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 200 µs
Turn-off time	≤ 420 µs
Switching frequency	≤ 100 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

Optocoupler module ▶ Nominal input voltage U_N: 12 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm



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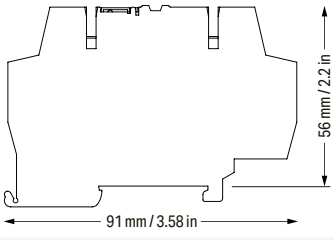
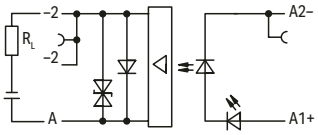
	859-797	10



Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	9 … 16 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.5 A
Peak output current	2.7 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 15 µs
Turn-off time	≤ 100 µs
Switching frequency	≤ 2.5 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 12 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 5 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm



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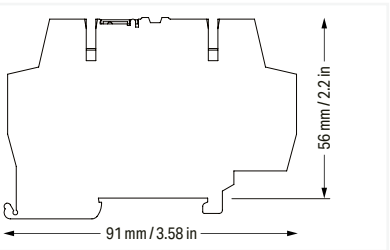
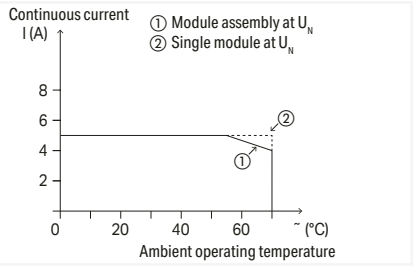
859-739	10

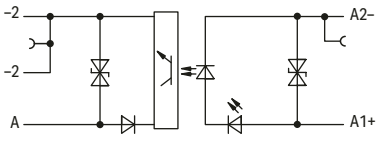


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

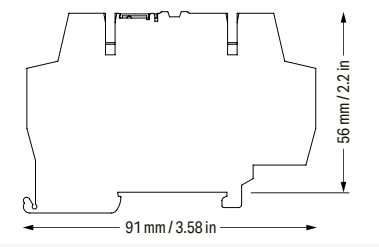


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	9.6 … 14.4 VDC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	5 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 200 µs
Turn-off time	≤ 450 µs
Switching frequency	≤ 100 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

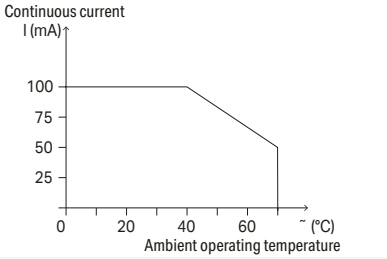
Optocoupler module ▶ Nominal input voltage U_N: 12 VDC ▶ Output voltage range: 9 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-798	10

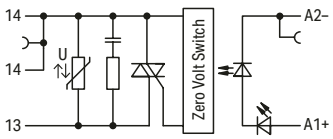


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

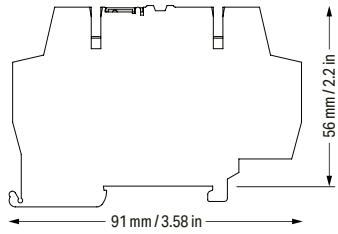


Control circuit	
Nominal input voltage U_N	12 VDC
Input voltage range (low level)	0 … 4.8 VDC
Input voltage range (high level)	8.4 … 15 VDC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	9 … 60 VDC
Voltage drop	≤ 2 VDC
Turn-on time	≤ 20 µs
Turn-off time	≤ 120 µs
Switching frequency	≤ 1.5 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; EN 61373

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 12 … 260 VAC (50 … 60 Hz) ▶ Limiting continuous current: 1 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Red LED ▶ Width: 6 mm



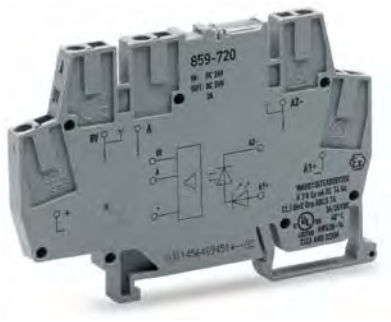
	Item No.	PU
	859-734	1

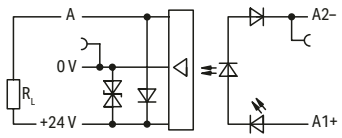


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

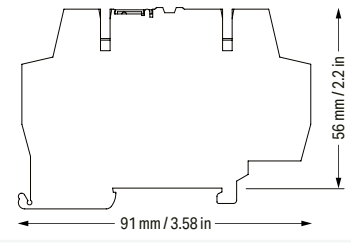
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	16 … 30 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	19 … 28.8 VDC
Nominal input current at U_N	7 mA
Input current range	2 … 9 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	1 A
Peak output current	30 A
Nominal output voltage	230 VAC
Output voltage range	12 … 260 VAC (50 … 60 Hz)
Voltage drop	≤ 1.2 VAC
Leakage current at rated voltage	≤ 1 mA
Switching current (min.)	10 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 10 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm





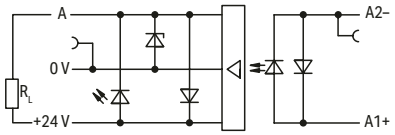
Item No.	PU
859-720	1



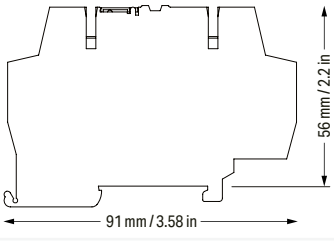
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 3 VDC
Input voltage range (high level)	16 … 30 VDC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	3 A
Peak output current	20 A
Nominal output voltage	24 VDC
Output voltage range	10 … 30 VDC
Voltage drop	≤ 0.5 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 30 µs
Turn-off time	≤ 75 µs
Rise time (t_{10-90})	16 µs
Drop-out time (t_{90-10})	20 µs
Switching frequency	≤ 2 kHz (< 0.5 A; ≤ 2 kHz / < 1 A; ≤ 1 kHz / < 2 A)
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

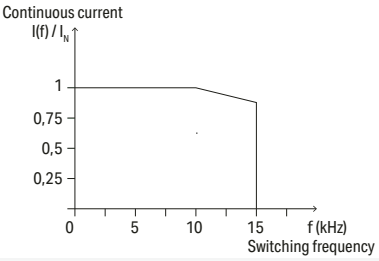
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 15 … 30 VDC ▶ Limiting continuous current: 1 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-708	1

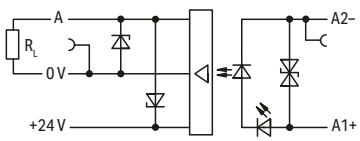


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

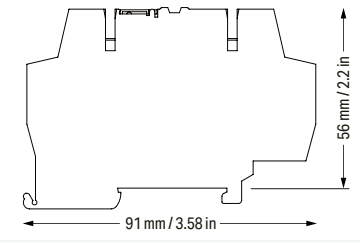


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	22 … 30 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	22 … 30 VDC
Nominal input current at U_N	9 mA
Input current range	5.5 … 10.7 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	1 A
Peak output current	4 A
Nominal output voltage	24 VDC
Output voltage range	15 … 30 VDC
Voltage drop	≤ 1.4 VDC
Leakage current at rated voltage	≤ 5 µA
Turn-on time	≤ 7 µs
Turn-off time	≤ 14 µs
Rise time (t_{10-90})	3 µs
Drop-out time (t_{90-10})	3 µs
Switching frequency	≤ 15 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 28.8 VDC ▶ Limiting continuous current: 0.1 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



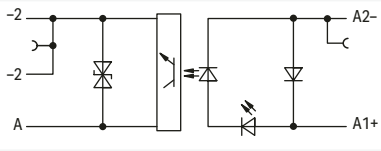
Item No.	PU
859-759	1



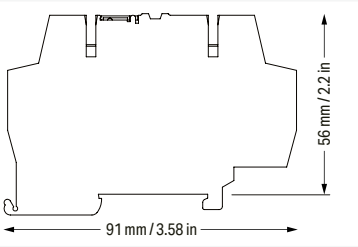
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	20 … 30 VDC
Nominal input current at U_N	9 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.1 A
Peak output current	0.8 A
Nominal output voltage	24 VDC
Output voltage range	20 … 28.8 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 10 µA
Output closed-circuit current (without load) max.	7 mA
Turn-on time	≤ 0.5 µs
Turn-off time	≤ 2 µs
Switching frequency	≤ 100 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

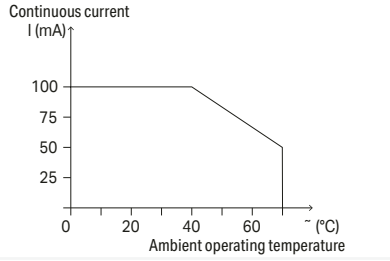
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-796	10

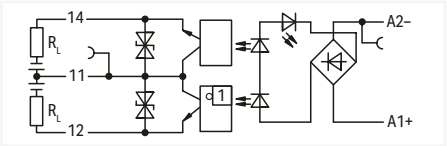


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

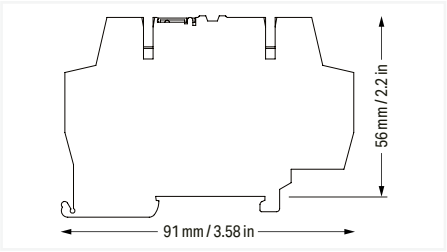


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 10 µs
Turn-off time	≤ 50 µs
Switching frequency	≤ 10 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; EN 61373; UL 508

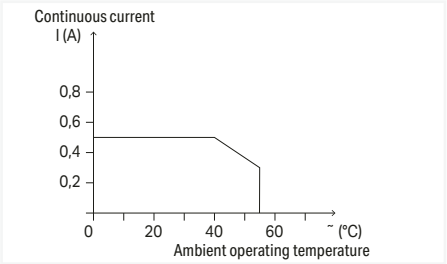
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 1 A ▶ Changeover contact output ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-732	1

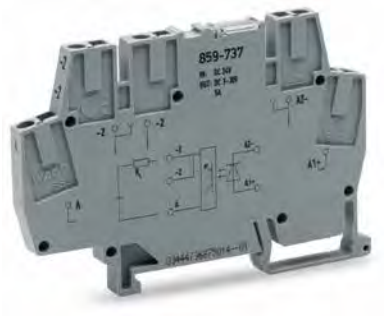


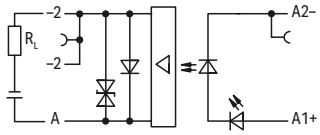
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



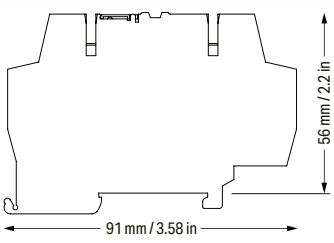
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	14 … 60 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	15 … 42 VDC
Nominal input current at U_N	6 mA
Input current range	3.5 … 9 mA
Load circuit	
Circuit type	Changeover contact output
Limiting continuous current	1 A
Peak output current	4 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 1.5 VDC
Leakage current at rated voltage	≤ 1.3 mA
Switching current (min.)	0.5 mA
Turn-on time	≤ 25 µs
Turn-off time	≤ 150 µs
Switching frequency	≤ 2 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 10 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm

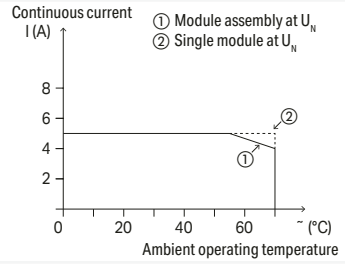




	Item No.	PU
	859-737	1

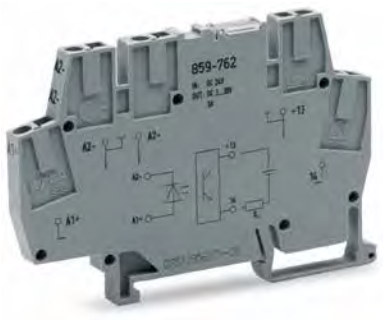


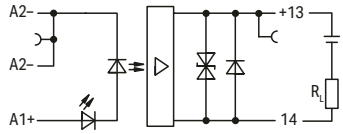
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



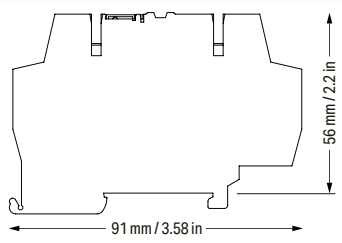
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	4 mA
Input current range	2 … 7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	10 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Leakage current at rated voltage	≤ 5 µA
Turn-on time	≤ 40 µs
Turn-off time	≤ 70 µs
Rise time (t_{10-90})	18 µs
Drop-out time (t_{90-10})	13 µs
Switching frequency	≤ 3 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm





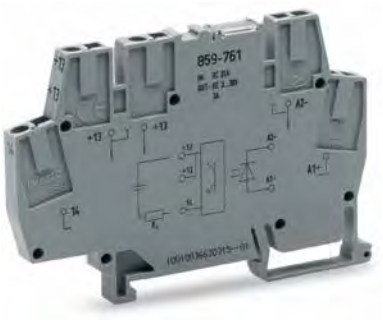
	Item No.	PU
	859-762	1

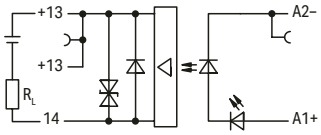


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

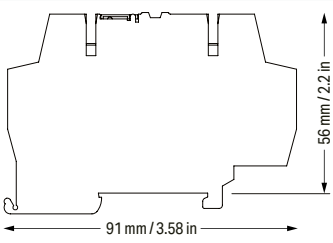
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 9 VDC
Input voltage range (high level)	19 … 27 VDC
Nominal input current at U_N	7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 25 µs
Turn-off time	≤ 450 µs
Switching frequency	≤ 350 Hz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 3 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm





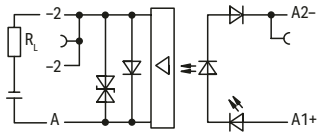
Item No.	PU
859-761	1



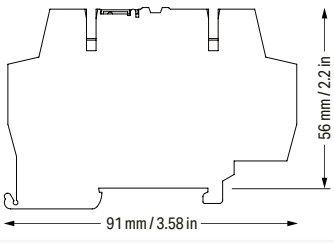
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	15 … 27 VDC
Nominal input current at U_N	14 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	3 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 25 µs
Turn-off time	≤ 450 µs
Switching frequency	≤ 350 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

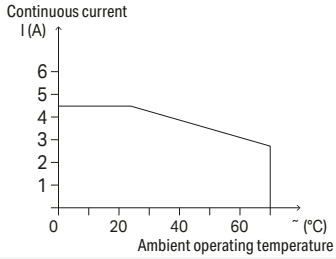
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 4.8 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm

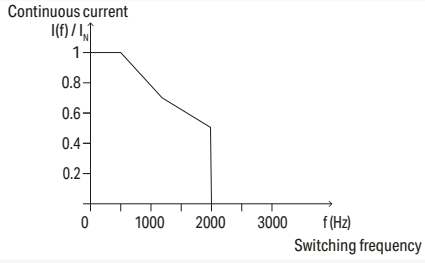


Item No.	PU
859-730	10



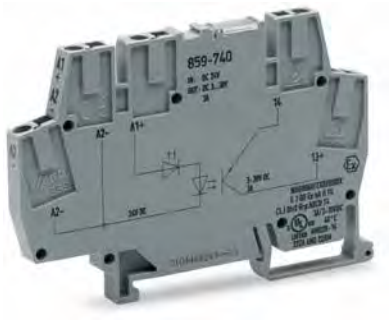
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

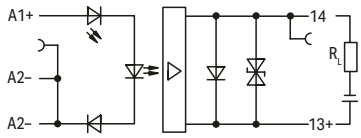




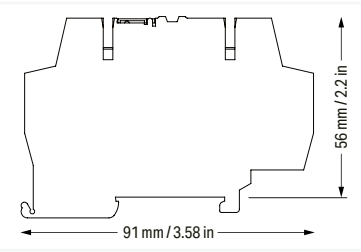
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 7.5 VDC
Input voltage range (high level)	12.5 … 30 VDC
Nominal input current at U_N	15 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	4.8 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.4 VDC
Leakage current at rated voltage	≤ 45 µA
Turn-on time	≤ 20 µs
Turn-off time	≤ 1 ms
Rise time (t_{10-90})	12 µs
Drop-out time (t_{90-10})	15 µs
Switching frequency	≤ 2.3 kHz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 5.5 A ▶ 2-wire connection ▶ Status indicator: Yellow LED ▶ Width: 6 mm

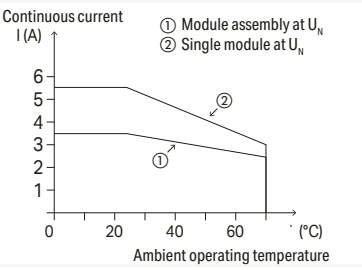


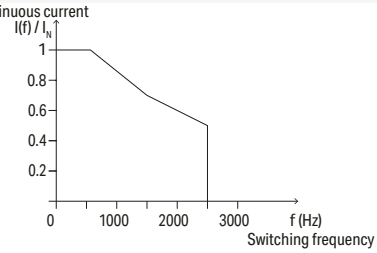


	Item No.	PU
	859-740	10



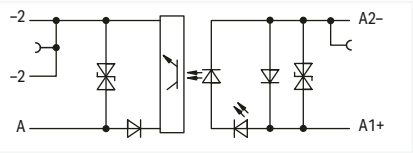
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



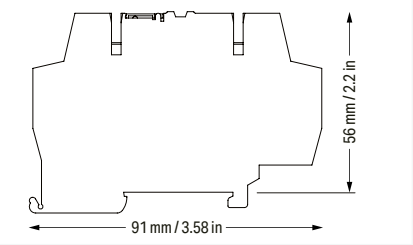


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 6.5 VDC
Input voltage range (high level)	16 … 30 VDC
Nominal input current at U_N	8 mA
Input current range	1 … 12 mA
Load circuit	
Number of make/switch-on contacts	1
Circuit type	2-wire connection
Limiting continuous current	5.5 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.4 VDC
Leakage current at rated voltage	≤ 10 µA
Turn-on time	≤ 30 µs
Turn-off time	≤ 100 µs
Rise time (t_{10-90})	16 µs
Drop-out time (t_{90-10})	16 µs
Switching frequency	≤ 2.5 kHz
Signaling	
Status indicator	Yellow LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3

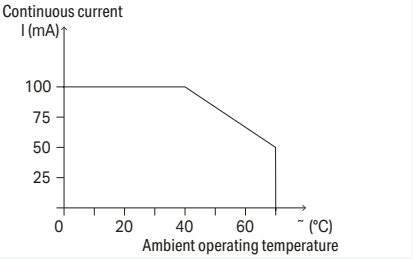
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 3 … 60 VDC ▶ Limiting continuous current: 0.2 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-791	10

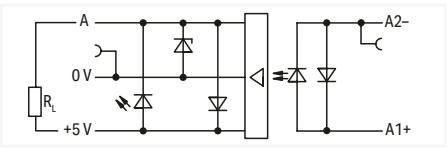


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

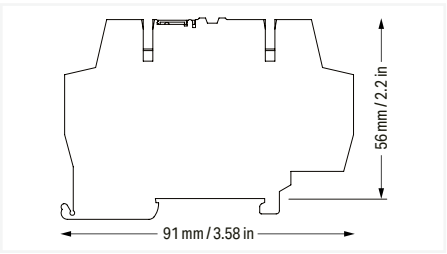


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	16.8 … 30 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16 … 30 VDC
Nominal input current at U_N	5 mA
Input current range	2 … 7 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.2 A
Nominal output voltage	24 VDC
Output voltage range	3 … 60 VDC
Voltage drop	≤ 1.5 VDC
Leakage current at rated voltage	≤ 10 µA
Turn-on time	≤ 30 µs
Turn-off time	≤ 50 µs
Rise time (t_{10-90})	19 µs
Drop-out time (t_{90-10})	35 µs
Switching frequency	≤ 4 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; UL 508; ATEX

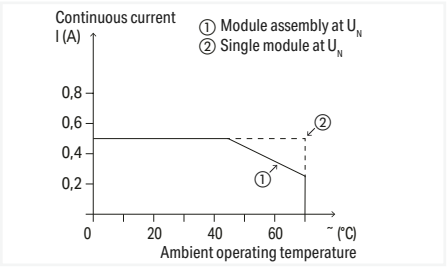
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 4 … 6.25 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-706	1

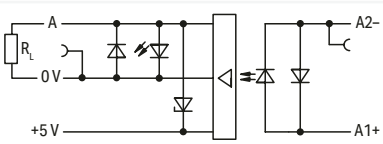


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

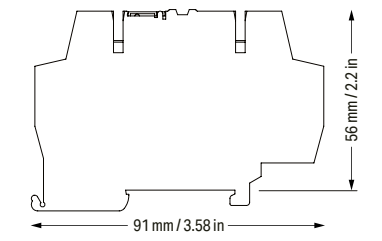


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	16 … 30 VDC
Nominal input current at U_N	12.3 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	0.5 A
Nominal output voltage	5 VDC
Output voltage range	4 … 6.25 VDC
Voltage drop	≤ 0.8 VDC
Leakage current at rated voltage	≤ 1 µA
Turn-on time	≤ 3 µs
Turn-off time	≤ 13 µs
Switching frequency	≤ 20 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 4 … 6.25 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



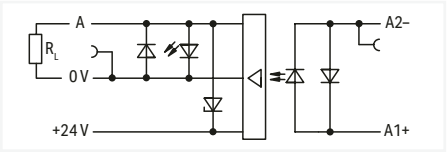
Item No.	PU
859-756	1



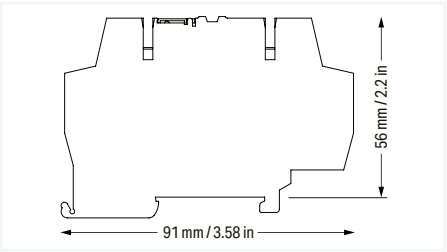
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	18 … 30 VDC
Nominal input current at U_N	11 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	5 VDC
Output voltage range	4 … 6.25 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 10 µA
Output closed-circuit current (without load) max.	4.5 mA
Turn-on time	≤ 15 µs
Turn-off time	≤ 30 µs
Switching frequency	≤ 10 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

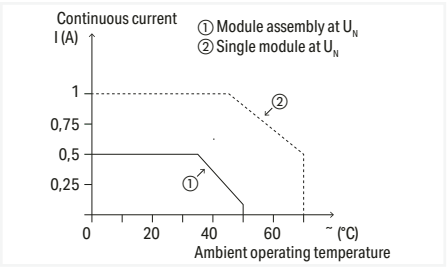
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 6 … 30 VDC ▶ Limiting continuous current: 1 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm

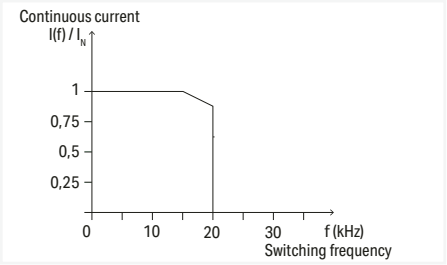


	Item No.	PU
	859-758	10



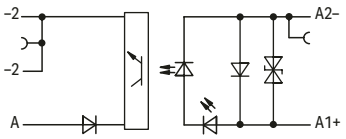
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



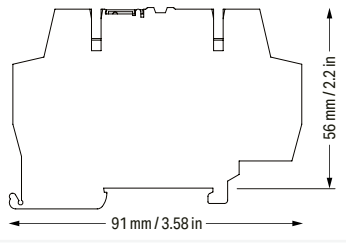


Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range	15 … 30 VDC
Input voltage range (low level)	0 … 3 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	9 mA
Input current range	4 … 12 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	1 A
Nominal output voltage	24 VDC
Output voltage range	6 … 30 VDC
Voltage drop	≤ 1.3 VDC
Leakage current at rated voltage	≤ 10 µA
Turn-on time	≤ 3 µs
Turn-off time	≤ 12 µs
Rise time (t_{10-90})	1 µs
Drop-out time (t_{90-10})	1 µs
Switching frequency	≤ 20 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

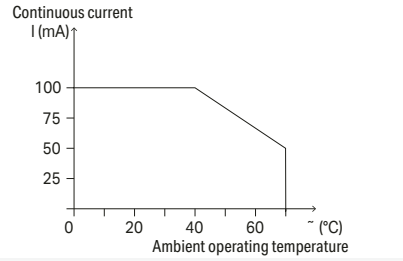
Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 9 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-794	10

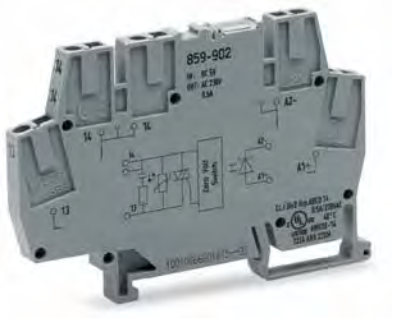


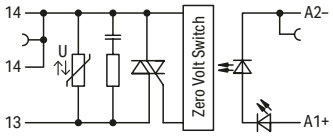
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



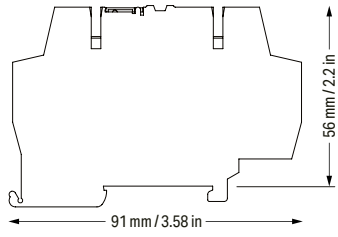
Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	16 … 30 VDC
Nominal input current at U_N	5 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	9 … 60 VDC
Voltage drop	≤ 2 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 20 µs
Turn-off time	≤ 120 µs
Switching frequency	≤ 1.5 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 24 … 260 VAC (50 … 60 Hz) ▶ Limiting continuous current: 0.5 A ▶ 2-wire connection; Zero-voltage switching ▶ Status indicator: Red LED ▶ Width: 6 mm





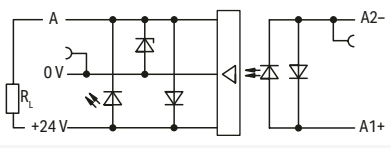
Item No.	PU
859-902	1



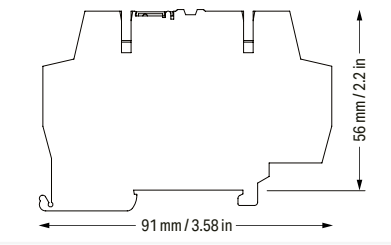
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 1 VDC
Input voltage range (high level)	4 … 6.25 VDC
Nominal input current at U_N	8 mA
Load circuit	
Circuit type	2-wire connection; Zero-voltage switching
Limiting continuous current	0.5 A
Peak output current	30 A
Nominal output voltage	230 VAC
Output voltage range	24 … 260 VAC (50 … 60 Hz)
Voltage drop	≤ 1.2 VAC
Leakage current at rated voltage	≤ 1 mA
Switching current (min.)	50 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; UL 508

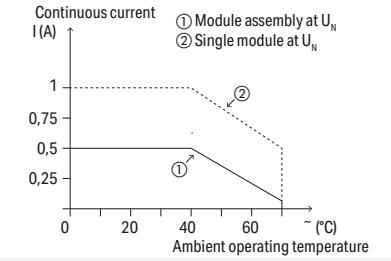
Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 15 … 30 VDC ▶ Limiting continuous current: 1 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm

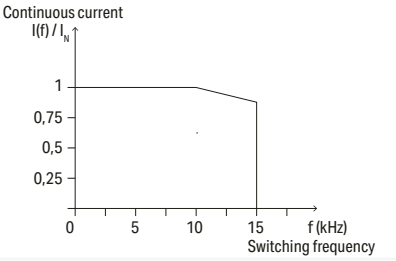


Item No.	PU
859-702	1



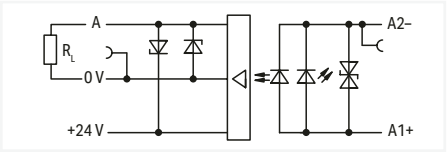
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



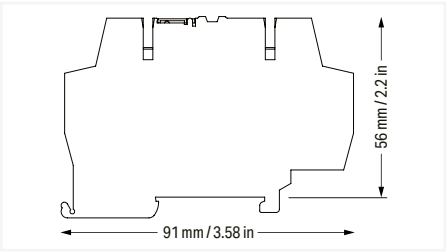


Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 1.5 VDC
Input voltage range (high level)	4 … 6.25 VDC
Nominal input current at U_N	11.7 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	1 A
Nominal output voltage	24 VDC
Output voltage range	15 … 30 VDC
Voltage drop	≤ 1.3 VDC
Leakage current at rated voltage	≤ 1 µA
Turn-on time	≤ 4 µs
Turn-off time	≤ 17 µs
Switching frequency	≤ 15 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature UL (operation at U_N)	-40 … +40 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.14 … 2.5 mm² / 24 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 20 … 28.8 VDC ▶ Limiting continuous current: 0.1 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



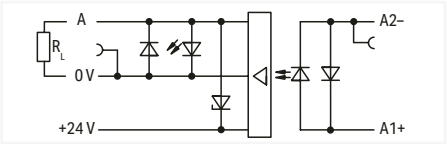
Item No.	PU
859-753	1



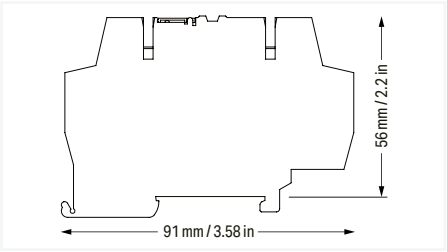
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 1 VDC
Input voltage range (high level)	4 … 6.25 VDC
Nominal input current at U_N	17 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.1 A
Peak output current	0.8 A
Nominal output voltage	24 VDC
Output voltage range	20 … 28.8 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 10 µA
Output closed-circuit current (without load) max.	7 mA
Turn-on time	≤ 0.5 µs
Turn-off time	≤ 5 µs
Switching frequency	≤ 100 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +55 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 6 mm



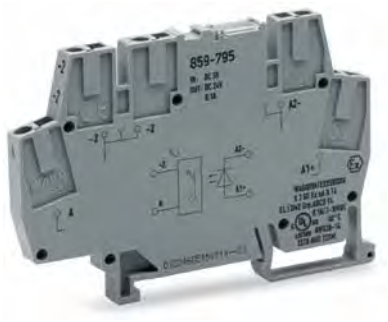
Item No.	PU
859-752	1

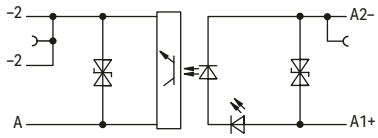


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

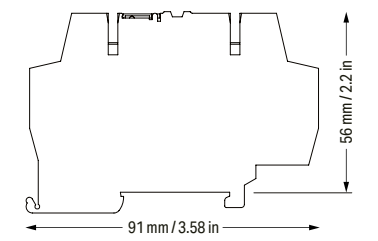
Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 1 VDC
Input voltage range (high level)	4 … 6 VDC
Nominal input current at U_N	10 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 10 µA
Output closed-circuit current (without load) max.	12.5 mA
Turn-on time	≤ 15 µs
Turn-off time	≤ 30 µs
Switching frequency	≤ 10 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature UL (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm

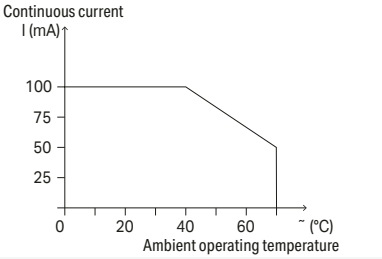




Item No.	PU
859-795	10

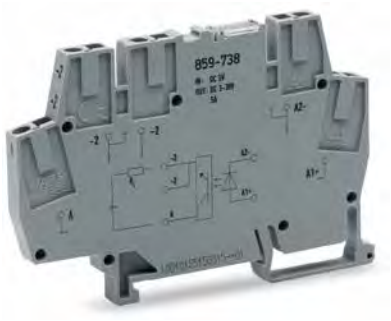


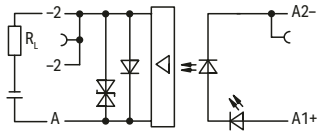
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



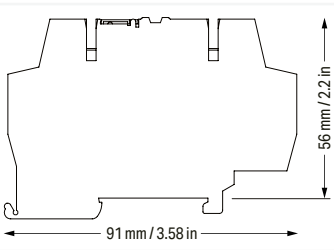
Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 0.8 VDC
Input voltage range (high level)	2 … 6.25 VDC
Nominal input current at U_N	17 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 1 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 10 µs
Turn-off time	≤ 50 µs
Switching frequency	≤ 10 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-3; EN 61000-6-4; EN 50121-3-2; EN 61373; UL 508

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 3 … 30 VDC ▶ Limiting continuous current: 5 A ▶ 2-wire connection ▶ Status indicator: Red LED ▶ Width: 6 mm

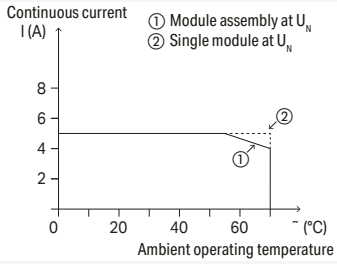




Item No.	PU
859-738	10

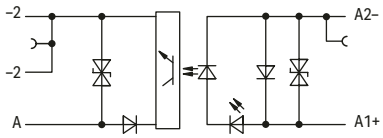


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

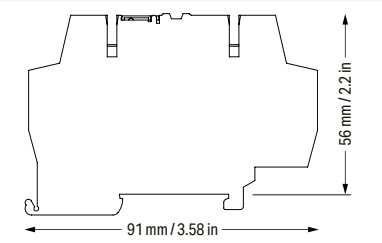


Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 2 VDC
Input voltage range (high level)	4.5 … 6 VDC
Nominal input current at U_N	8 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	5 A
Peak output current	25 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 200 µs
Turn-off time	≤ 450 µs
Switching frequency	≤ 100 Hz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 61373

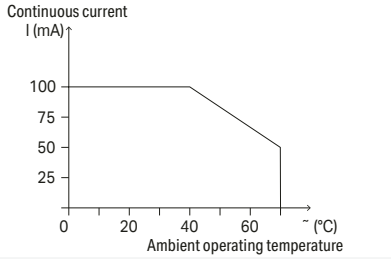
Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 3 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Red LED ▶ Width: 6 mm



Item No.	PU
859-793	10



Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 … 0.8 VDC
Input voltage range (high level)	2 … 6.25 VDC
Nominal input current at U_N	8 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	3 … 60 VDC
Voltage drop	≤ 2.5 VDC
Leakage current at rated voltage	≤ 25 µA
Turn-on time	≤ 20 µs
Turn-off time	≤ 120 µs
Switching frequency	≤ 1.5 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20; in connected state or when using 859-525 end plate
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-2; EN 61000-6-3; EN 50121-3-2; EN 61373; UL 508

Accessories

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	Item No.	PU
	210-720	50

Felt-tip pen; for permanent marking

	Item No.	PU
	210-110	200

Test pin; 1 mm Ø; with solder connection for test cable

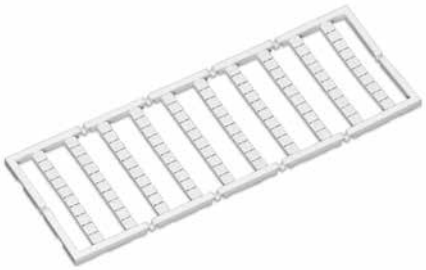
	Item No.	PU
	859-500	100

End and intermediate plate; 1 mm thick

	Item No.	PU
	859-525	100

Push-in type jumper bar; light gray; insulated; 18 A

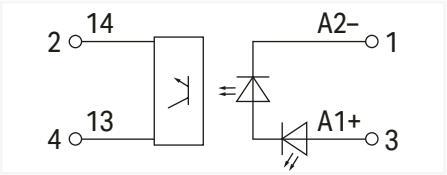
Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)
Item no. suffixes for colored push-in type jumper bars		
yellow	... /000-029	
red	... /000-005	
blue	... /000-006	



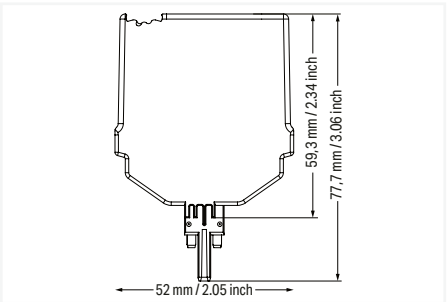
Mini-WSB marker card; Marker width: 5 mm; 10 strips with 10 markers/card

Marking	Item No.	PU
plain	248-501	50
1 ... 10 (10 x)	248-502	50
11 ... 20 (10 x)	248-503	50
21 ... 30 (10 x)	248-504	50
31 ... 40 (10 x)	248-505	50
41 ... 50 (10 x)	248-506	50
1 ... 50 (2 x)	248-566	50
K1 ... K10	248-450	50
K11 ... K20	248-451	50
K100	248-452	50
U1 ... U10	248-453	50
U11 ... U20	248-454	50
U100	248-455	50

Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 0 … 53 VDC ▶ Limiting continuous current: 4 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 10.3 mm



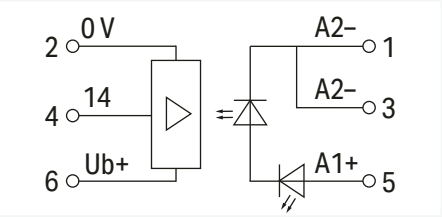
Item No.	PU
2042-7504	1



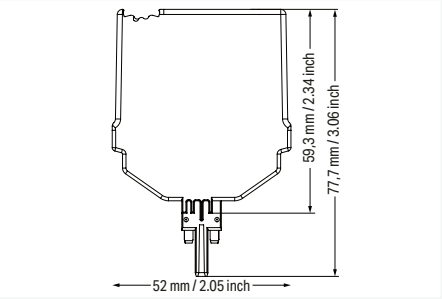
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 6 VDC
Input voltage range (high level)	10 … 53 VDC
Nominal input current at U_N	3 mA
Input current range	3 … 5 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	4 A
Nominal output voltage	48 VDC (SELV)
Output voltage range	0 … 53 VDC
Voltage drop	≤ 1 VDC
Switching current (min.)	20 µA
Turn-on time	≤ 12 µs
Turn-off time	≤ 32 µs
Switching frequency	≤ 300 Hz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2; EN 50121-4; EN 61000-6-2; EN 61000-6-3

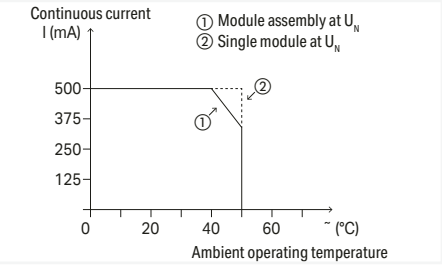
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 16.8 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 15.5 mm



Item No.	PU
2042-7304	1

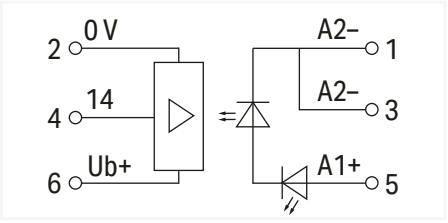


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

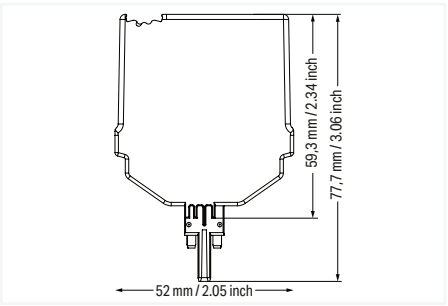


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 6 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	7 mA
Input current range	6 … 8 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC (SELV)
Output voltage range	16.8 … 30 VDC
Voltage drop	≤ 1 VDC
Switching current (min.)	20 µA
Turn-on time	≤ 2 µs
Turn-off time	≤ 4 µs
Switching frequency	≤ 100 kHz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +50 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2; EN 50121-4; EN 61000-6-2; EN 61000-6-3

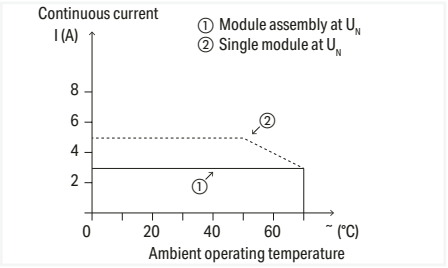
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 16.8 … 30 VDC ▶ Limiting continuous current: 5 A ▶ 3-wire connection; High-side switching ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 15.5 mm



Item No.	PU
2042-7604	1

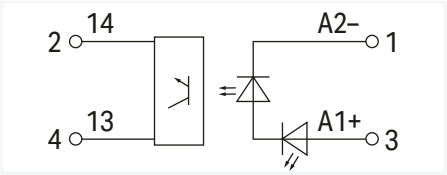


Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

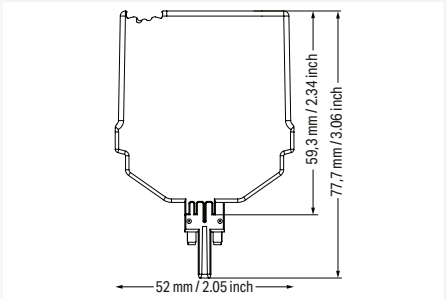


Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	7 mA
Input current range	6 … 8 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	5 A
Nominal output voltage	24 VDC (SELV)
Output voltage range	16.8 … 30 VDC
Voltage drop	≤ 1 VDC
Switching current (min.)	3 mA
Turn-on time	≤ 10 µs
Turn-off time	≤ 20 µs
Switching frequency	≤ 5 kHz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2; EN 50121-4; EN 61000-6-2; EN 61000-6-3

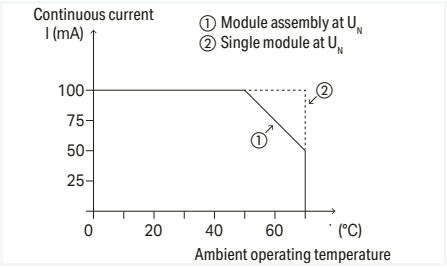
Solid-state relay module ▶ Nominal input voltage U_N: 24 VDC (SELV) ▶ Output voltage range: 3 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ For railway applications ▶ Status indicator: Green LED ▶ Width: 10.3 mm



	Item No.	PU
	2042-7204	1



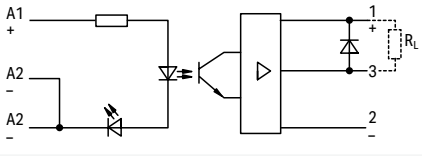
Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.



Control circuit	
Nominal input voltage U_N	24 VDC (SELV)
Input voltage range (low level)	0 … 10 VDC
Input voltage range (high level)	16.8 … 30 VDC
Nominal input current at U_N	7 mA
Input current range	6 … 8 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	24 VDC (SELV)
Output voltage range	3 … 60 VDC
Voltage drop	≤ 1 VDC
Switching current (min.)	20 µA
Turn-on time	≤ 8 µs
Turn-off time	≤ 14 µs
Switching frequency	≤ 10 kHz
Signaling	
Status indicator	Green LED
Safety and protection/Environmental requirements	
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	10.3 mm x 59.3 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373; EN 50121-3-2; EN 50121-4; EN 61000-6-2; EN 61000-6-3

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 15 … 40 VDC ▶ Limiting continuous current: 5 A ▶ 3-wire connection; Low-side switching ▶ Status indicator: Red LED ▶ Width: 15 mm

Similar to illustration



Item No.	PU
286-721	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	14 mA
Input current range	7.5 … 18 mA
Load circuit	
Circuit type	3-wire connection; Low-side switching
Limiting continuous current	5 A
Nominal output voltage	24 VDC
Output voltage range	15 … 40 VDC
Voltage drop	≤ 0.5 VDC
Leakage current at rated voltage	≤ 2 µA
Turn-on time	≤ 20 µs
Turn-off time	≤ 80 µs
Switching frequency	≤ 1 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

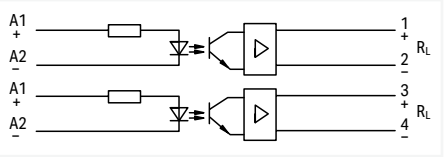
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 0.25 A ▶ 2-way; 2-wire connection ▶ Width: 20 mm



Item No.	PU
286-792	10

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	7.5 … 30 VDC
Nominal input current at U_N	15 mA
Load circuit	
Circuit type	2-way; 2-wire connection
Limiting continuous current	0.25 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 2.5 VDC
Leakage current at rated voltage	≤ 3 µA
Turn-on time	≤ 60 µs
Turn-off time	≤ 120 µs
Switching frequency	≤ 1.5 kHz
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

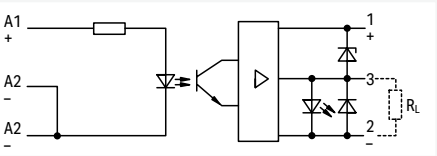
Item No.	PU (SPU)
280-638	20 (1)

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 15 mm

Similar to illustration



Item No.	PU
286-752	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	12 … 30 VDC
Nominal input current at U_N	15 mA
Input current range	5 … 20 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 2 µA
Output closed-circuit current (without load) max.	12 mA
Turn-on time	≤ 7 µs
Turn-off time	≤ 15 µs
Switching frequency	≤ 25 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

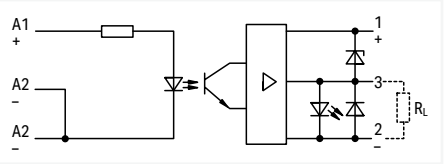
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 4 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 15 mm



	Item No.	PU
	286-723	15

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	14 mA
Input current range	7.6 … 15 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	4 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 2 µA
Output closed-circuit current (without load) max.	12 mA
Turn-on time	≤ 15 µs
Turn-off time	≤ 25 µs
Switching frequency	≤ 2.5 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-609	30 (1)

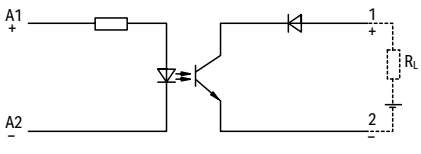
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-763	25 (1)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ Width: 10 mm



Item No.	PU
286-794	25

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	18 … 30 VDC
Nominal input current at U_N	4 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	20 … 60 VDC
Voltage drop	≤ 2 VDC
Leakage current at rated voltage	≤ 2 µA
Turn-on time	≤ 80 µs
Turn-off time	≤ 100 µs
Switching frequency	≤ 1.5 kHz
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +60 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-608	40 (1)

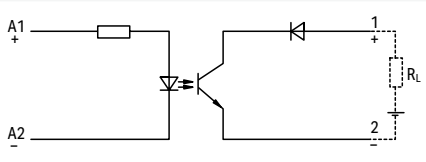
Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-618	40 (1)

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-762	30 (1)

Optocoupler module ▶ Nominal input voltage U_N: 24 VDC ▶ Output voltage range: 20 … 60 VDC ▶ Limiting continuous current: 0.1 A ▶ 2-wire connection ▶ Width: 10 mm



Item No.	PU
286-791	25

Note
Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Control circuit	
Nominal input voltage U_N	24 VDC
Input voltage range (high level)	15 … 30 VDC
Nominal input current at U_N	14 mA
Load circuit	
Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	20 … 60 VDC
Voltage drop	≤ 2 VDC
Leakage current at rated voltage	≤ 2 µA
Turn-on time	≤ 10 µs
Turn-off time	≤ 50 µs
Switching frequency	≤ 3 kHz
Safety and protection/Environmental requirements	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +40 °C
Ambient temperature (storage)	-25 … +40 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3

Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-608	40 (1)

Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

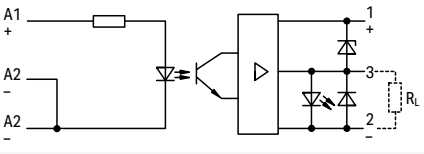
Item No.	PU (SPU)
280-618	40 (1)

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-762	30 (1)

Optocoupler module ▶ Nominal input voltage U_N: 5 VDC ▶ Output voltage range: 20 … 30 VDC ▶ Limiting continuous current: 0.5 A ▶ 3-wire connection; High-side switching ▶ Status indicator: Red LED ▶ Width: 15 mm

Similar to illustration



Item No.	PU
286-752/002-000	15

Control circuit	
Nominal input voltage U_N	5 VDC
Input voltage range (high level)	2 … 6.25 VDC
Nominal input current at U_N	14 mA
Input current range	3.3 … 18.5 mA
Load circuit	
Circuit type	3-wire connection; High-side switching
Limiting continuous current	0.5 A
Nominal output voltage	24 VDC
Output voltage range	20 … 30 VDC
Voltage drop	≤ 1.2 VDC
Leakage current at rated voltage	≤ 2 µA
Output closed-circuit current (without load) max.	12 mA
Turn-on time	≤ 5 µs
Turn-off time	≤ 10 µs
Switching frequency	≤ 25 kHz
Signaling	
Status indicator	Red LED
Safety and protection/Environmental requirements	
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Protection type	IP20
Ambient temperature (operation at U_N)	-25 … +70 °C
Ambient temperature (storage)	-25 … +70 °C
Processing temperature	-25 … +50 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Standards and specifications	
Standards/specifications	EN 60664-1

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Accessories

WSB marker card; WSB marker width: 4 mm; 10 strips with 10 markers/card

Marking	Item No.	PU
K	209-782	50
1 ... 10 (10 x)	209-702	50
A1; A2; 13; 14	209-952	50
A1; A2; 11; 12	209-953	50
11; 12; 14; A1; A2; A2; 11; 12; 14	209-994	50
12; A1; A2; 24; 11; 14; 21; 22	209-995	50
A1; A1; A2; A2; 11; 12; 13; 14; 23; 24	209-693	50
12; A1; A2; 23; 24; 11; 13; 14; 21; 22	209-691	50
12; A1; A2; 23; 24; 11; 13; 14; 33; 34	209-690	50
14; A1; A2; 33; 34; 13; 23; 24; 43; 44	209-692	50
A1; A2; 32; 31; 34; 42; 41; 12; 11; 14; 22; 21; 24; 44	249-656	50
L+; 1; L-; L-; 11; 12; 13; 14	209-954	50
A1; A2; A3; 11; 12; 14	249-607	50
A1; A1; A2; A2; 12; 11; 11; 14	209-996	50
A1; A1; St; A2; A2; 12; 11; 11; 14	209-601	50
U1; U2; U3; U4; 0V; 12; 11; 11; 14; 14	209-951	50
U	209-789	50
A1; A2; A2; 1; 3; 2	209-685	50
A1; A2; A2; 1; 2; 2	209-686	50
A1+; A1+; A2-; A2-; 1; RL1; RL2; 2	209-955	50
A1+; A1+; A2-; A2-; 1+; 1+; A; 2-	249-651	50
+/-	209-552	50
1; 2; 3; 0V; +UB; OUT; ERR.; 0V	249-622	50
1; 2; 0V; +UB; OUT; ERR.; 0V	249-623	50
Lin; Lin; Lout; Lout; 24V; UA; UA; 0V	209-957	50
Lin; Lin; Lout; 11; 14; 14; Lin; Lin; Lout	249-654	50
Iin; Iin; Iout; Iout; 24V; 11; 12; 14; 0V	209-997	50
S	209-682	50
V	209-784	50
F1 ... F10	209-787	50
D	209-783	50
+; -; 1; 2; 3; 13; 14; 4; 5; 6	249-608	50
L; N; Ackn.; Failure; Test; N; 14; 24	249-606	50
A1; A2; Ackn.; Failure; 12; 11; 11; 14	249-653	50

WSB marker card; plain; WSB marker width: 4 mm; 10 strips with 10 markers/card

Color	Item No.	PU
white	209-701	100
yellow	209-701/000-002	100
red	209-701/000-005	100
blue	209-701/000-006	100
gray	209-701/000-007	100
orange	209-701/000-012	100
light green	209-701/000-017	100
green	209-701/000-023	100
violet	209-701/000-024	100

WAGO Signal Conditioners and Isolation Amplifiers

WAGO Signal Conditioners and Isolation Amplifiers

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WAGO Isolating Amplifiers
Selection Guide

Isolating Amplifiers

Item No.			857-400	857-401	857-403	857-409	857-411	857-412	857-413	857-414	857-415	857-416	2857-401
Input Signal	Current	0 … 0.3 mA			■								
		0 … 1 mA			■								■
		0 … 5 mA			■								
		0 … 10 mA			■	■							■
		2 … 10 mA			■	■							■
		0 … 20 mA	■		■	■	■				■		■
		4 … 20 mA	■		■	■	■					■	■
		0 … 50 mA			■								
		0 … 100 mA			■								■
	Bipolar Signals (Current)	±0.3 mA			■								
		±1 mA			■								■
		±5 mA			■								
		±10 mA			■	■							■
		±20 mA		■	■	■							■
		±50 mA			■								
		±100 mA			■								■
	Voltage	0 … 60 mV			■								
		0 … 100 mV			■								
		0 … 150 mV			■								
		0 … 300 mV			■								
		0 … 500 mV			■								
		0 … 1 V			■								■
		0 … 5 V	■		■	■							■
		1 … 5 V	■		■	■							■
		0 … 10 V	■		■	■		■	■	■			■
		2 … 10 V	■		■	■		■					■
		0 … 30 V		■									■
		0 … 100 V			■								■
		0 … 200 V			■								
		0 … 220 V											■
	Bipolar Signals (Voltage)	±60 mV			■								
		±100 mV			■								
		±150 mV			■								
		±300 mV			■								
		±500 mV			■								
		±1 V			■								■
		±5 V			■	■							■
		±10 V		■	■	■							■
		±30 V											■
		±100 V			■								■
		±200 V			■								■
Output Signal	Current	0 … 10 mA	■	■	■	■							■
		2 … 10 mA	■	■	■	■							■
		0 … 20 mA	■	■	■	■	■		■				■
		4 … 20 mA	■	■	■	■	■			■			■
	Bipolar Signals (Current)	±10 mA			■	■							■
		±20 mA			■	■							■
	Voltage	0 … 5 V	■	■	■	■							■
		1 … 5 V	■	■	■	■							■
		0 … 10 V	■	■	■	■		■			■	■	■
		2 … 10 V	■	■	■	■		■					■
	Bipolar Signals (Voltage)	±5 V			■	■							■
		±10 V			■	■							■
Specialty Functions	Zero/span adjustment		■			■							
	Digital Output (DO)			■	■								■
	Clipping			■									■
	Simulation												■
Configuration	DIP switch		■	■	■	■							■
	Potentiometer		■			■							
	WAGO Interface Configuration Software			■									■
	Pre-configured						■	■	■	■	■	■	

WAGO Isolating Amplifiers Selection Guide

Isolating Amplifiers

			Isolation amplifier	Signal splitter	Signal splitter	Passive isolator	Passive isolator	Passive isolator
Item No.			857-420	857-423	857-424	857-450	857-451	857-452
Input Signal	Current	0 … 5 mA				■		
		0 … 10 mA			■	■		
		2 … 10 mA			■	■		
		0 … 20 mA	■	■	■	■	■	■
		4 … 20 mA	■	■	■	■	■	■
	Bipolar Signals (Current)	±5 mA				■		
		±10 mA				■		
		±20 mA				■		
	Voltage	0 … 1 V				■		
		0 … 5 V		■	■	■		
		1 … 5 V		■	■	■		
		0 … 10 V		■	■	■		
		2 … 10 V		■	■	■		
	Bipolar Signals (Voltage)	±1 V				■		
		±5 V				■		
		±10 V				■		
Output Signal	Current	0 … 10 mA			■			
		2 … 10 mA			■			
		0 … 20 mA	■	■	■		■	■
		4 … 20 mA	■	■	■	■	■	■
	Voltage	0 … 5 V	■					
		1 … 5 V	■					
		0 … 10 V	■		■			
		2 … 10 V	■		■			
Specialty Functions	Zero/span adjustment					■		
Configuration	DIP switch		■	■	■	■		
	Pre-configured						■	■

WAGO Current and Voltage Signal Conditioners Selection Guide

Current and Voltage Signal Conditioners

			Current signal conditioner	Current signal conditioner	Current signal conditioner	Voltage signal conditioner	Power measurement module	Voltage signal conditioner	Current signal onditioner	Power measurement module
Item No.			**857-550**	**857-551**	**857-552**	**857-560**	**857-569**	**857-819**	**2857-550**	**2857-569**
Input Signal	Current	0 … 1 AAC/ADC	■							■
		0 … 5 AAC/ADC	■	■			■			■
		0 … 6 AAC/ADC		■						
		0 … 8 AAC/ADC								■
		0.5 … 100 AAC							■	
	Bipolar Signals (Current)	±100 ADC							■	
	Voltage	0 … 300 VAC/VDC				■	■			■
		0 … 500 VAC/VDC								■
		0 … 200 mV to 0 … 1000 mV						■		
		Rogowski coils 10.05 mV/500A			■					
		Rogowski coils 22.5 mV/kA			■					
	Bipolar Signals (Voltage)	±100 mV						■		
Output Signal	Current	0 … 10 mA	■	■	■	■	■	■	■	
		2 … 10 mA	■	■	■	■	■	■	■	
		0 … 20 mA	■	■	■	■	■	■	■	
		4 … 20 mA	■	■	■	■	■	■	■	
		(can be inverted, also bipolar)		■		■	■			
	Bipolar Signals (Current)	±10 mA							■	
		±20 mA							■	
		±24 mA								■
		SELV								■
	Voltage	0 … 5 V	■	■	■	■	■	■	■	
		1 … 5 V	■	■	■	■	■	■	■	
		0 … 10 V	■	■	■	■	■	■	■	
		2 … 10 V	■	■	■	■	■	■	■	
		(can be inverted, also bipolar)		■		■	■			
	Bipolar Signals (Voltage)	±5 V							■	
		±10 V							■	
		±12 V								■
		SELV								■
Specialty Functions	Digital Output (DO)		■	■	■	■	■		■	
	Clipping		■	■	■	■	■	■	■	
	Simulation								■	
Configuration	DIP switch		■	■	■	■	■	■	■	
	WAGO Interface Configuration Software		■	■	■	■	■	■	■	■

WAGO Temperature Signal Conditioners Selection Guide

Temperature Signal Conditioners

Item No.			857-800	857-801	857-808	857-810	857-811	857-812	857-815	857-818	857-820	2857-535	2857-535/000-001
Input Signal Type	Cu Sensors				■								
	KTY Sensors										■		
	Ni Sensors								■				
	Pt Sensors		■	■	■				■				
	RTD Sensors											■	■
	TC Sensors					■	■	■				■	■
	Potentiometer											■	■
	Resistance		■	■					■			■	■
Sensory Type RTD	Cu53				■								
	Ni100									■			
	Ni120									■			
	Ni200									■			
	Ni500									■			
	Ni1000									■			
	Pt46				■								
	Pt100 ... Pt1000		■	■					■				
	Pt10 ... Pt2000 (expandable)											■	■
Sensory Type TC	Type J					■	■					■	■
	Type K					■	■	■				■	■
	Type E											■	■
	Type R							■				■	■
	Type N											■	■
	Type S							■				■	■
	Type T											■	■
	Type B							■				■	■
	Type C											■	■
Sensor Connection	2-wire; 3-wire; 4-wire		■	■	■				■	■		■	■
	Differential											■	■
	Potentiometer											■	■
Output Signal	Current	0 ... 10 mA	■	■	■	■	■	■		■	■		
		2 ... 10 mA	■	■	■	■	■	■		■	■		
		0 ... 20 mA	■	■	■	■	■	■		■	■		
		4 ... 20 mA	■	■	■	■	■	■	■	■	■		
		20 ... 4 mA							■				
		±24 mA										■	
	Voltage	0 ... 5 V	■	■	■	■	■	■		■	■		
		1 ... 5 V	■	■	■	■	■	■		■	■		
		0 ... 10 V	■	■	■	■	■	■		■	■		
		2 ... 10 V	■	■	■	■	■	■		■	■		
		±12 V										■	
Specialty Functions	Clipping		■	■		■	■			■	■		
	Digital Output (DO)										■	■	
	Relay with 1 changeover contact											■	■
	Simulation											■	■
Configuration	DIP switch		■	■	■	■	■	■	■	■	■		
	Rotary encoder switch												■
	WAGO Interface Configuration Software			■			■					■	■

WAGO Threshold Value Switch Selection Guide

Threshold Value Switch

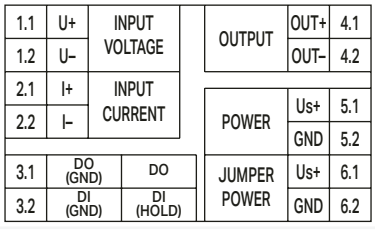
Item No.			857-531	2857-533	2857-533/000-001	2857-534
Measured variable			Voltage; Current	Temperature; Resistance	Temperature; Resistance	Temperature
Input Signal Type	Voltage		■			
	Current		■			
	RTD Sensors			■	■	
	TC Sensors					■
	Potentiometer			■	■	
	Resistance			■	■	
Input Signal	Current	±20 mA	■			
	Voltage	0 ... 30 V	■			
	Bipolar Signals (Voltage)	±10 V	■			
Sensory Type RTD	Pt100 ... Pt10000			■	■	
	Pt10 ... Pt2000			■	■	
Sensory Type TC	Type J					■
	Type K					■
	Type E					■
	Type N					■
	Type R					■
	Type S					■
	Type T					■
	Type B					■
	Type C					■
Sensor Connection	2-wire; 3-wire; 4-wire			■	■	
	Differential			■	■	
Output Signal Relay	Switching Voltage		250 VAC	250 VAC	250 VAC	250 VAC
	Continuous current		6 A	6 A	6 A	6 A
Nominal supply voltage U_s			24 VDC	24 VDC (SELV)	24 VDC (SELV)	24 VDC
Specialty Functions	Digital Output (DO)		■	■	■	■
	Relay with 1 changeover contact		■			■
	Relais with 1 make contact			■	■	
	Simulation			■	■	■
Configuration	DIP switch		■	■		■
	Push/slide switch		■			
	WAGO Interface Configuration Software		■	■	■	■

WAGO Signal Conditioners with Specialty Functions Selection Guide

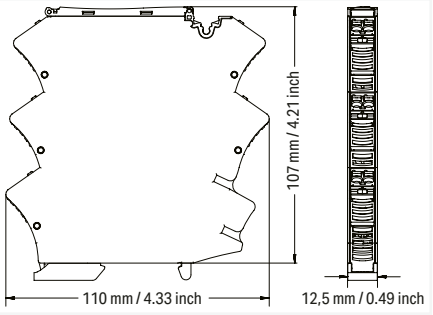
Frequency signal conditioner and Potentiometer signal conditioner

			Frequency signal conditioner	Potentiometer signal conditioner
Item No.			**857-500**	**857-809**
Input Signal Type			Frequency generators; NAMUR sensors; NPN/PNP transistor outputs; Mechanical contact (dry contact)	Potentiometer; Resistance
Frequency Signal Conditioner	Sensory Type 1		Frequency generator; NPN/PNP transistor output with pull-up or pull-down resistor	
	Measurement range (frequency)		0.1 Hz ... 120 kHz	
	Sensory Type 2		NAMUR sensor per DIN EN 50227	
	Measurement range (frequency)		0.1 Hz ... 1 kHz	
	Sensory Type 3		NPN/PNP transistor output without pull-up or pull-down resistor; Mechanical contact (dry contact)	
	Measurement range (frequency)		0.1 Hz ... 20 kHz	
Potentiometer Signal Conditioner	Input range Potentiometer			0 ... 100 kΩ
	Input range Resistor			0 ... 100 kΩ
Output Signal Type	Current		■	■
	Voltage		■	■
Output Signal	Current	0 ... 10 mA	■	■
		2 ... 10 mA	■	■
		0 ... 20 mA	■	■
		4 ... 20 mA	■	■
	Voltage	0 ... 5 V	■	■
		1 ... 5 V	■	■
		0 ... 10 V	■	■
		2 ... 10 V	■	■
Nominal supply voltage U_s			24 VDC	24 VDC
Specialty Functions	Clipping		■	■
Configuration	DIP switch		■	■
	Push/slide switch			■
	WAGO Interface Configuration Software		■	■

Isolating amplifier ▶ Input signal type: Voltage (DC); Current (DC) ▶ Output signal type: Voltage; Current ▶ Digital output (DO); Clipping; Simulation ▶ Width: 12.5 mm



Item No.	PU
2857-401	1



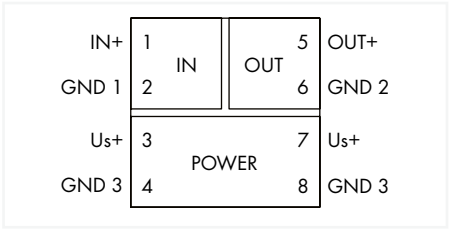
Short description:
WAGO's signal conditioner converts, amplifies, filters, and electrically isolates analog signals.

Features:
- Analog unipolar/bipolar signals at both input and output
- Digital signal output reacts to configured measurement range limits (configurable on/off switching delay and threshold value switch function with up to two threshold values).
- Digital HOLD input freezes the output signal.
- Clipping capability for analog signal limitation to output end values
- Adjustable software/hardware filter
- Safe 3-way isolation with 4 kV test voltage per EN 61140

Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 6 A is not exceeded.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage (DC); Current (DC)
Input signal (voltage)	±1 V; 0 … 1 V; ±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V; ±30 V; 0 … 30 V; ±100 V; 0 … 100 V; ±200 V; 0 … 220 V
Input signal (current)	±1 mA; 0 … 1 mA; ±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA; ±100 mA; 0 … 100 mA
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 1 MΩ
Input current (max.)	±120 mA
Input voltage (max.)	±250 V
Input – digital	
Hold signal	11.8 V … U_S
Output – analog	
Output signal type	Voltage; Current
Output signal (voltage)	±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V
Output signal (current)	±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Setting range (frequency generator)	0.3 … 100 Hz
Signal processing	
Limit frequency	10 kHz / 5 kHz / 100 Hz / 30 Hz (configurable via DIP switch or software)
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	1 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 70 mA (+ I_{DO})
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	4 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	12.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 60664-1; EN 61373; EN 50121-3-2

Isolating amplifier ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Zero/span adjustment ▶ Width: 6 mm



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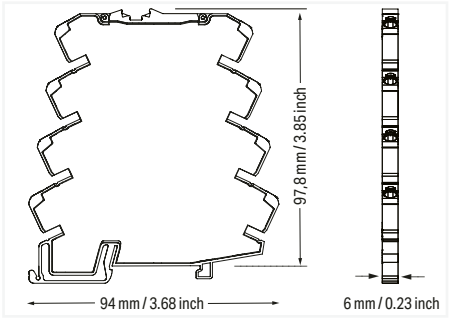


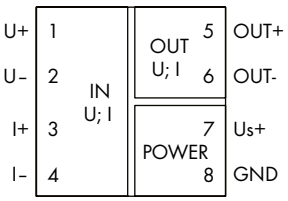
Short description:
WAGO's configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.
Features:
- Calibrated measurement range switching
- Switchable limit frequency

Safety Information
Input and output must be safely isolated from any hazardous live parts!

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)

Configuration	
Configuration options	DIP switch; Potentiometer
Input	
Input signal type	Voltage; Current
Input signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (calibrated, switchable)
Input signal (current)	0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	50 mA
Input voltage (max.)	30 V
Zero/span adjustment	±3% of upper-range value
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (calibrated (as delivered), switchable)
Output signal (current)	0 … 20 mA; 4 … 20 mA; 0 … 10 mA; 2 … 10 mA (calibrated (delivery status), switchable)
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 100 µs (5 kHz)
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 15 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption (default)	≤ 30 mA
Current consumption (max.)	≤ 40 mA (I_{out} 20 mA; Load impedance: 600 Ω; U_s: 16.8 V)
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; DNV; UL 508

Isolating amplifier ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Zero/span adjustment ▶ Width: 6 mm



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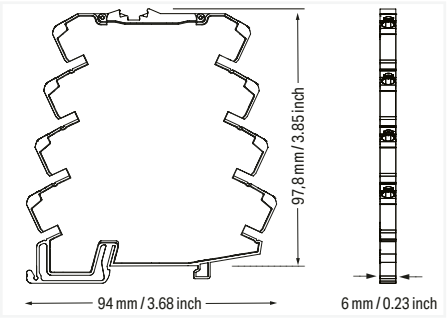


Short description:
WAGO's bipolar signal conditioner converts standard unipolar/bipolar signals, as well as amplifies, filters and electrically isolates the bipolar standard analog signals.

Features:
- Overload protection of current input via resettable fuse
- Zero/span adjustment across the entire measurement range
- Calibrated measurement range switching
- Unipolar/bipolar standard analog signals at both input/output
- Switchable limit frequency

Safety Information
Input and output must be safely isolated from any hazardous live parts!

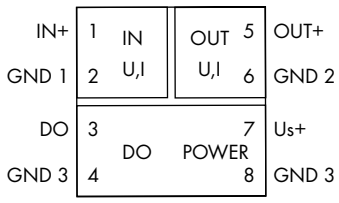
Note

Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Use in the living area is only permitted in conjunction with a power supply that meets the criteria of the living area according to EN 61000-6-3.

Configuration	
Configuration options	DIP switch; Potentiometer
Input	
Input signal type	Voltage; Current
Input signal (voltage)	±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V
Input signal (current)	±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	1 MΩ
Input current (max.)	50 mA
Input voltage (max.)	32 V
Zero/span adjustment	±5 % of upper-range value
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V
Output signal (current)	±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Residual ripple	≤ 10 mV (rms)
Signal processing	
Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 68 µs (5 kHz)
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 15 %
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption (default)	≤ 20 mA
Current consumption (max.)	≤ 40 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Cable type	Shielded cable
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1; EN 61373; DNV

Isolating amplifier ▶ Input signal type: Voltage (DC); Current (DC) ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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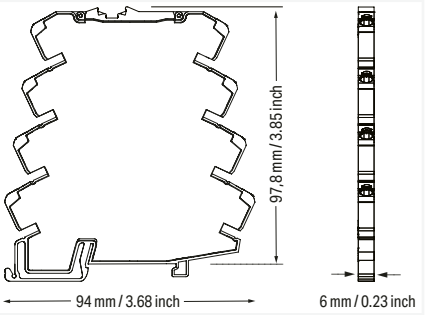
857-401	1



Short description:
WAGO's configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.
Digital switching output:
The digital output (DO) allows signaling of a message.Two switching behaviors can be selected for the edge:
GND switching: For all values below the lower threshold or above the upper threshold, the digital output switches to "GND.
U_s switching: For all values below the lower threshold or above the upper threshold, the digital output (DO) matches the supply voltage level.

The preset switching thresholds are 0% and 100% of the input measurement range. These thresholds can be adjusted via the PC configuration interface. The switching threshold hysteresis is 5 mV/5 µA.

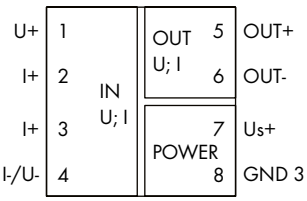
Features:
- PC configuration interface
- Calibrated measurement range switching
- Standard unipolar/bipolar analog signals at input
- Clipping capability
  for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

Note
Additional setting options via the WAGO Interface Configuration Software
The 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 4 and 8 connections: 1 A (max.)

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage (DC); Current (DC)
Input signal (voltage)	±10 V; 0 … 30 V
Input signal (current)	±20 mA
Input resistance (current input)	≤ 200 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	22 mA
Input voltage (max.)	31 V
Measurement span (min.)	1 V
Measurement span (current) min.	2 mA
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	2 (adjustable)
Signal processing	
Step response (typ.)	8 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/ supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C (individual arrangement; -25 … +60 °C (block arrangement))
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-1
Standards/specifications	EN 61373; EN 50121-3-2; DNV; EN 61010-2-201

Isolating amplifier ▶ Input signal type: Voltage (DC); Current (DC) ▶ Output signal type: Current; Voltage ▶ Digital output (DO) ▶ Width: 6 mm



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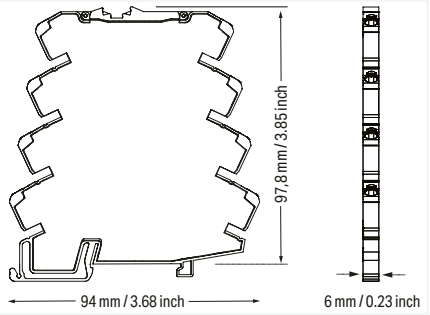


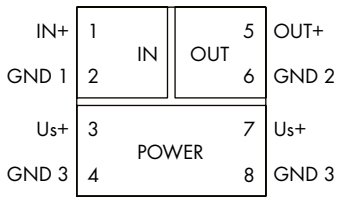
Short description:
WAGO's signal conditioner converts standard unipolar/bipolar signals, as well as amplifies, filters and electrically isolates standard analog signals.

Features:
- Overload protection of current input via resettable fuse
- Calibrated measurement range switching for all 456 signals
- Unipolar/bipolar standard analog signals at both input/output
- Switchable limit frequency
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Voltage (DC); Current (DC)
Input signal (voltage)	±60 mV; 0 … 60 mV; ±100 mV; 0 … 100 mV; ±150 mV; 0 … 150 mV; ±300 mV; 0 … 300 mV; ±500 mV; 0 … 500 mV; ±1 V; 0 … 1 V; ±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V; ±100 V; 0 … 100 V; ±200 V; 0 … 200 V
Input signal (current)	±0.3 mA; 0 … 0.3 mA; ±1 mA; 0 … 1 mA; ±5 mA; 0 … 5 mA; ±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA; ±50 mA; 0 … 50 mA; ±100 mA; 0 … 100 mA
Input resistance (current input)	10 Ω (≥ 5 mA); 100 Ω (≤ 5 mA)
Input resistance (voltage input)	1 MΩ
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V
Output signal (current)	±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 100 µs (5 kHz)
Measurement error	
Transmission error (typ.)	≤ 0.08 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Rated Voltage	200 V
Overvoltage category	II
Pollution degree	2
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Insulation type (input/supply and analog output/relay output)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1

Isolating amplifier ▶ Input signal type: Current ▶ Output signal type: Current ▶ Width: 6 mm



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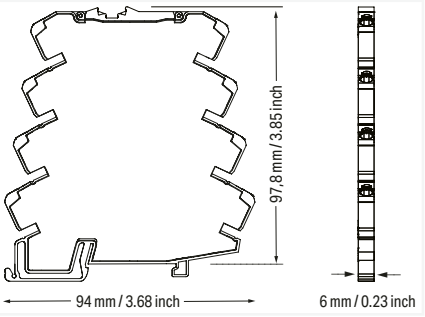


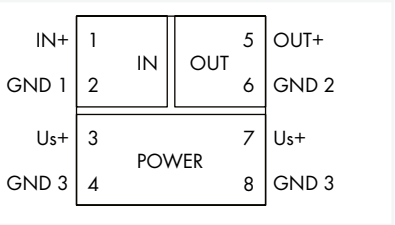
Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.
Features:
- Input/output: current or voltage signal
- 3-way electrical isolation with 3 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Current
Input signal (current)	0 … 20 mA; 4 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input current (max.)	50 mA
Input voltage (max.)	30 V
Output – analog	
Output signal type	Current
Output signal (current)	0 … 20 mA; 4 … 20 mA
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_s	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 30 mA
Operating data	
Current consumption	≤ 40 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolating amplifier ▶ Input signal type: Current ▶ Output signal type: Voltage ▶ Width: 6 mm



Item No.	PU
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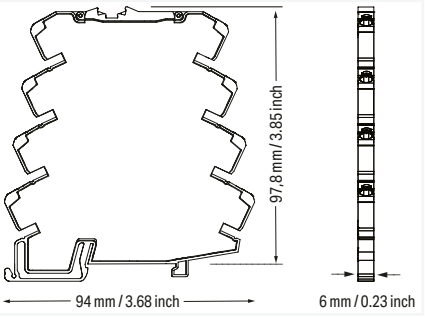


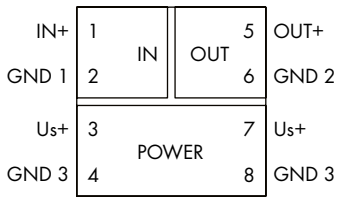
Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.
Features:
• Input/output: current or voltage signal
• 3-way electrical isolation with 3 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

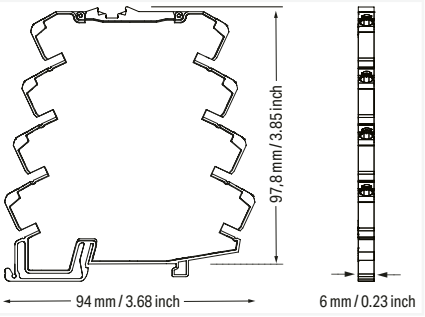
Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Current
Input signal (current)	0 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input current (max.)	50 mA
Input voltage (max.)	30 V
Output – analog	
Output signal type	Voltage
Output signal (voltage)	0 … 10 V
Load impedance (voltage output)	≥ 2 kΩ
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 20 mA
Operating data	
Current consumption	≤ 25 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolating amplifier ▶ Input signal type: Current ▶ Output signal type: Voltage ▶ Width: 6 mm



Item No.	PU
857-416	1



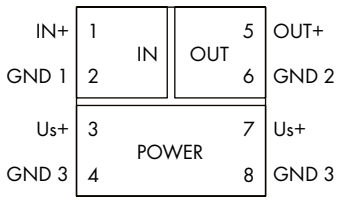
Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.
Features:
- Input/output: current or voltage signal
- 3-way electrical isolation with 3 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

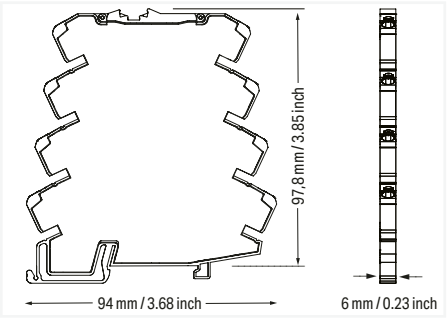
Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Current
Input signal (current)	4 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input current (max.)	50 mA
Input voltage (max.)	30 V
Output – analog	
Output signal type	Voltage
Output signal (voltage)	0 … 10 V
Load impedance (voltage output)	≥ 2 kΩ
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 20 mA
Operating data	
Current consumption	≤ 25 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolating amplifier ▶ Input signal type: Voltage ▶ Output signal type: Voltage ▶ Width: 6 mm



Item No.	PU
857-412	1



Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.

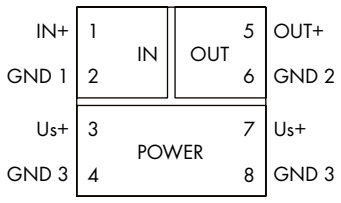
Features:
- Input/output: current or voltage signal
- 3-way electrical isolation with 3 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

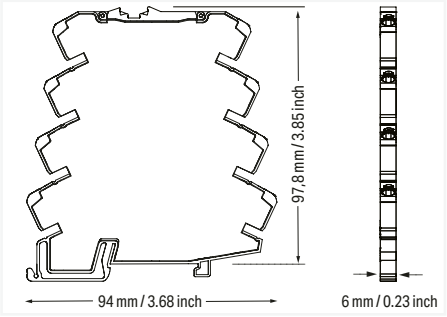
Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Voltage
Input signal (voltage)	0 … 10 V; 2 … 10 V
Input resistance (voltage input)	≥ 100 kΩ
Input voltage (max.)	30 V
Output – analog	
Output signal type	Voltage
Output signal (voltage)	0 … 10 V; 2 … 10 V
Load impedance (voltage output)	≥ 2 kΩ
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 20 mA
Operating data	
Current consumption	≤ 25 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolating amplifier ▶ Input signal type: Voltage ▶ Output signal type: Current ▶ Width: 6 mm



Item No.	PU
857-413	1



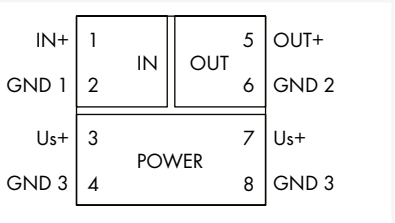
Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.
Features:
- Input/output: current or voltage signal
- 3-way electrical isolation with 3 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

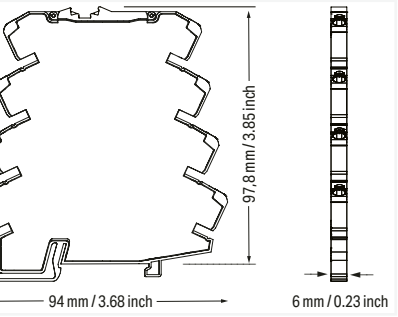
Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Voltage
Input signal (voltage)	0 … 10 V
Input resistance (voltage input)	≥ 100 kΩ
Input voltage (max.)	30 V
Output – analog	
Output signal type	Current
Output signal (current)	0 … 20 mA
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 30 mA
Operating data	
Current consumption	≤ 40 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolating amplifier ▶ Input signal type: Voltage ▶ Output signal type: Current ▶ Width: 6 mm



Item No.	PU
857-414	1



Short description:
WAGO's pre-configured signal conditioner converts, amplifies, filters and electrically isolates analog standard signals.

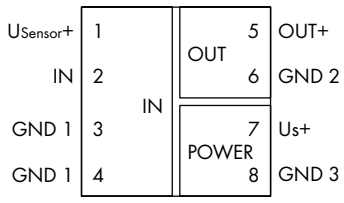
Features:
- Input/output: current or voltage signal
- 3-way electrical isolation with 2.5 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

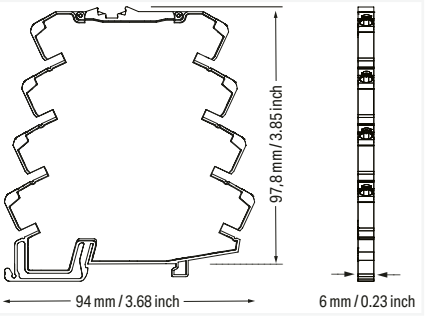
Note
The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned.
Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Voltage
Input signal (voltage)	0 … 10 V
Input resistance (voltage input)	≥ 100 kΩ
Input voltage (max.)	30 V
Output – analog	
Output signal type	Current
Output signal (current)	4 … 20 mA
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 30 mA
Operating data	
Current consumption	≤ 40 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61010-1; UL 508

Isolation amplifier ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Width: 6 mm



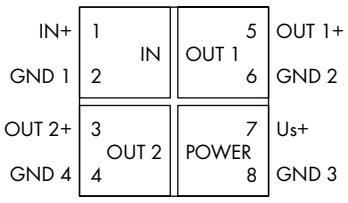
Item No.	PU
857-420	1



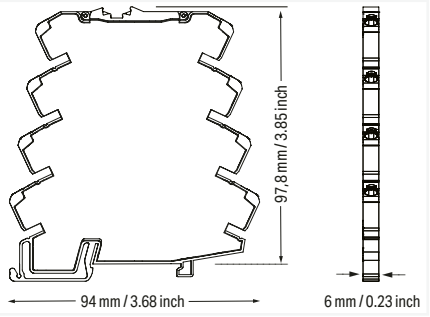
Short description:
WAGO's isolation amplifier provides the power required for 2- or 3-wire field transmitters and electrically isolates analog signals.
Features:
- Power supply to SMART transmitters
- Calibrated measurement range switching
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Current
Input signal (current)	0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Input resistance (current input)	≤ 50 Ω
Sensor supply	U_v = 18 V; 30 mA
Input current (max.)	50 mA
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (calibrated, switchable)
Output signal (current)	0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Offset	≤ 20 µA
Residual ripple	≤ 10 mV (rms)
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 45 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
Standards/specifications	DNV

Signal splitter ▶ Input signal type: Voltage; Current ▶ Output signal type: Current ▶ Width: 6 mm



Item No.	PU
857-423	1

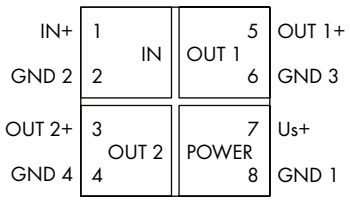


Short description:
WAGO's signal splitter converts, amplifies, filters and electrically isolates standard analog signals.
Features:
- Two configurable current outputs
- Calibrated measurement range switching
- Switchable limit frequency

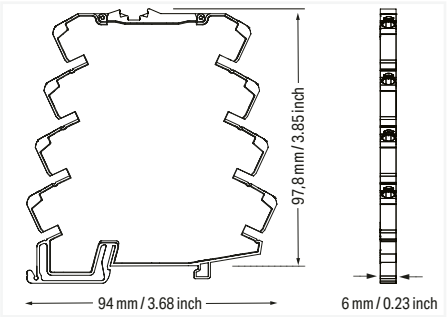
Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Voltage; Current
Input signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (calibrated, switchable)
Input signal (current)	0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 100 kΩ
Output – analog	
Output signal type	Current
Output signal (current)	0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Load impedance (current output)	≤ 300 Ω per channel
Signal processing	
Limit frequency	100 Hz / 1 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 300 µs (1 kHz)
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 10 %
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 35 mA
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output1/ analog output 2/supply)	Reinforced insulation (safe isolation)
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Cable type	Shielded cable
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Signal splitter ▶ Input signal type: Voltage; Current ▶ Output signal type: Voltage; Current ▶ Width: 6 mm



Item No.	PU
857-424	1

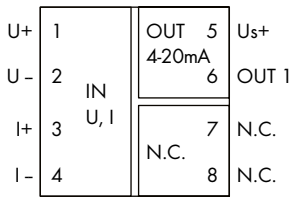


Short description:
WAGO's signal splitter converts, amplifies, filters and electrically isolates standard analog signals. In addition, the input signal is split into two separate outputs.
Features:
- Two configurable voltage/current outputs
- Switchable limit frequency
- 3-way electrical isolation with 2.5 kV test voltage

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Voltage; Current
Input signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Input signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	50 mA
Input voltage (max.)	30 V
Output – analog	
Output signal type	Voltage; Current
Output signal (voltage)	0 … 10 V; 2 … 10 V (calibrated, switchable)
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (calibrated, switchable)
Load impedance (voltage output)	≥ 2 kΩ (per channel)
Load impedance (current output)	≤ 600 Ω per channel
Signal processing	
Limit frequency	100 Hz / 1 kHz (configurable via DIP switch)
Step response (typ.)	5.2 ms (100 Hz); 650 µs (1 kHz)
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	-60 … +30 %
Current consumption (default)	< 27 mA
Current consumption (max.)	< 250 mA (2 x I_{out} 20 mA; Load impedance: 600 Ω; U_s: 9.6 V)
Safety and protection	
Rated Voltage	300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Protection type	IP20
Test voltage	
Test voltage (input/analog output 1/ analog output 2/supply)	3 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output1/ analog output 2/supply)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Cable type	Shielded cable
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C (individual arrangement; -40 … +50 °C (block arrangement))
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	75 °C
Relative humidity	5 … 95 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-1; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 50121-3-2

Passive isolator ▶ Input signal type: Voltage; Current ▶ Output signal type: Current ▶ Zero/span adjustment ▶ Width: 6 mm



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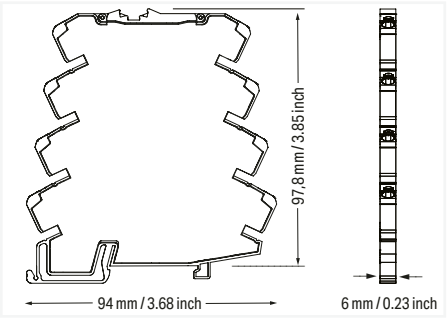
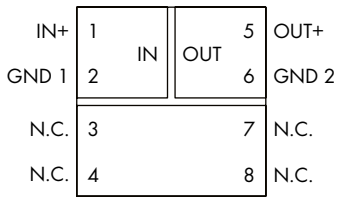


Short description:
WAGO's loop-powered isolator converts, amplifies, filters and electrically isolates standard unipolar/bipolar analog signals.

Features:
- No additional supply voltage required
- Zero/span adjustment
- Standard unipolar/bipolar analog signals at input
- Calibrated measurement range switching
- Switchable limit frequency
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Voltage; Current
Input signal (voltage)	±1 V; 0 … 1 V; ±2 V; 0 … 2 V; ±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V; ±20 V; 0 … 20 V
Input signal (current)	±5 mA; 0 … 5 mA; ±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Input resistance (current input)	≤ 50 Ω
Input resistance (voltage input)	≥ 1 MΩ
Input current (max.)	50 mA
Input voltage (max.)	30 V
Zero/span adjustment	±5 % of upper-range value
Output – analog	
Output signal type	Current
Output signal (current)	4 … 20 mA
Load impedance (current output)	≤ 600 Ω
Signal processing	
Limit frequency	100 Hz / 30 Hz (configurable via DIP switch)
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	Loop-powered (via output)
Supply voltage	8 … 30 VDC (Power is derived from the output circuit.)
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3

Passive isolator ▶ Total number of channels (module): 1 ▶ Input signal type: Current ▶ Output signal type: Current ▶ Width: 6 mm



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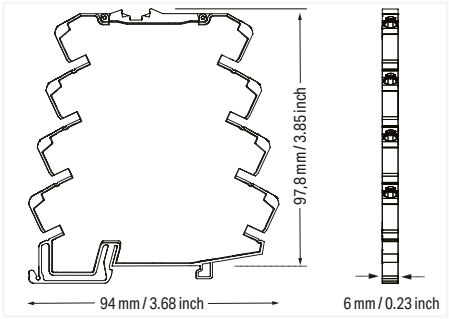


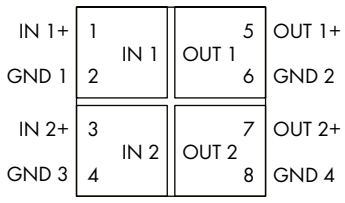
Short description:
WAGO's passive isolator (1-channel) electrically isolates and filters 0(4) ... 20 mA standard analog signals, while drawing power for signal transmission from the input circuit. The connected sensor supplies the passive isolator with the required power to energize the connected load.
Features:
• No additional supply voltage required
• 3-way electrical isolation with 2.5 kV test voltage

Safety Information
Outputs must not be left open!

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Current
Input signal (current)	0 ... 20 mA; 4 ... 20 mA
Input current (max.)	40 mA
Input voltage (max.)	20 V
Response threshold	200 µA
Output – analog	
Output signal type	Current
Output signal (current)	0 ... 20 mA; 4 ... 20 mA
Load impedance (current output)	≤ 600 Ω Temperature range restrictions may occur.
Output – voltage tap	
Voltage drop	≤ 2.5 V at 20 mA (output)
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Load error	≤ 0.05 % of upper-range value; per 100 Ω load
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	Passive (via input)
Safety and protection	
Rated Voltage	300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Overvoltage category	II
Pollution degree	2
Protection type	IP20
Test voltage	
Test voltage (input/output)	AC 3 kV; 50 Hz; 1 min
Insulation coordination (UL)	
Insulation type (input/analog output)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 ... 2.5 mm² / 0.34 ... 2.5 mm² / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Cable type	Shielded cable
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Temperature range of connection cable (UL)	70 °C
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1; DNV

Passive isolator ▶ Total number of channels (module): 2 ▶ Input signal type: Current ▶ Output signal type: Current ▶ Width: 6 mm



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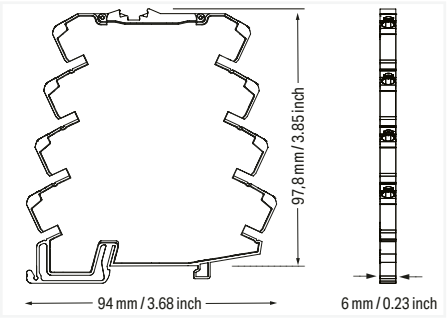


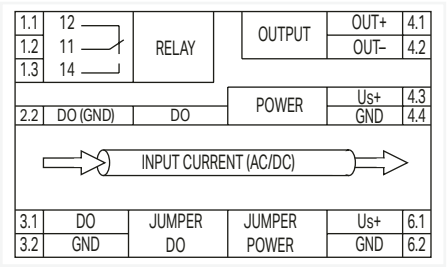
Short description:
WAGO's passive isolator (2-channel) electrically isolates and filters 0(4) ... 20 mA standard analog signals, while drawing power for signal transmission from the input circuit. The connected sensor supplies the passive isolator with the required power to energize the connected load.
Features:
- No additional supply voltage required
- 3-way electrical isolation with 2.5 kV test voltage

Safety Information
Outputs must not be left open!

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	Pre-configured
Input	
Input signal type	Current
Input signal (current)	0 ... 20 mA; 4 ... 20 mA
Input current (max.)	40 mA
Input voltage (max.)	20 V
Response threshold	200 µA
Output – analog	
Output signal type	Current
Output signal (current)	0 ... 20 mA; 4 ... 20 mA
Load impedance (current output)	≤ 600 Ω Temperature range restrictions may occur.
Output – voltage tap	
Voltage drop	≤ 2.5 V at 20 mA (output)
Signal processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Load error	≤ 0.05 % of upper-range value; per 100 Ω load
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	Passive (via input)
Safety and protection	
Rated Voltage	300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Overvoltage category	II
Pollution degree	2
Protection type	IP20
Test voltage	
Test voltage (input/output)	AC 3 kV; 50 Hz; 1 min
Insulation coordination (UL)	
Insulation type (input/analog output)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 ... 2.5 mm² / 0.34 ... 2.5 mm² / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Cable type	Shielded cable
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Temperature range of connection cable (UL)	70 °C
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1; DNV

Current signal conditioner ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping; Simulation ▶ Width: 22.5 mm



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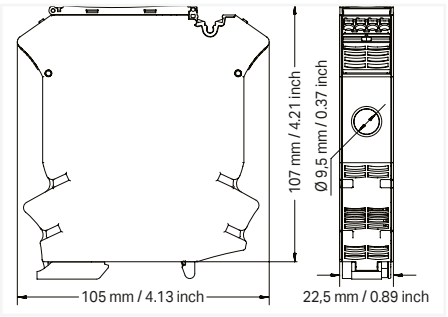


Short description:
WAGO's current signal conditioner measures AC/DC currents up to 100 A, while converting the measured current into an analog standard signal at the output.

Features:
- Both digital signal output and relay with changeover contact react to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Clipping capability for analog signal limitation to output end values
- Adjustable software filter
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1

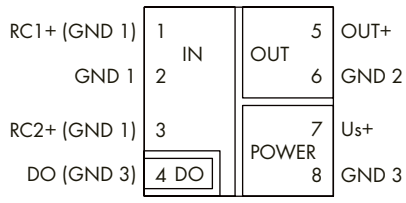
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 6 A is not exceeded.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Current
Input signal (current)	0,5 … 100 AAC; ±100 ADC
Frequency range	15 … 1000 Hz
Input current (max.)	100 A AC/DC
Response threshold	500 mA (AC); 250 mA (DC)
Resolution (current)	10 mA
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	±5 V; 0 … 5 V; 1 … 5 V; ±10 V; 0 … 10 V; 2 … 10 V
Output signal (current)	±10 mA; 0 … 10 mA; 2 … 10 mA; ±20 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Output – relay	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	8 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Measurement method	True RMS measurement; Arithmetic mean value
Limit frequency	3.3 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms (DC; for software filter 3/default setting); 250 ms (AC); 1 ms (DC/AC for < 0.5 A signals)
Measurement error	
Transmission error (max.)	≤ 1 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})

Current signal conditioner ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping; Simulation ▶ Width: 22.5 mm

Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	The conductor carrying the measurement current must have at least basic insulation for the voltage used. The test voltage of the conductor carrying the measurement current must be at least 1390 V_{rms} AC or 1390 VDC. The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Test voltage (measurement circuit/relay output/supply/analog output)	3 kVAC; 50 … 60 Hz; 1 min
Test voltage (measurement circuit/relay output/supply/service interface)	3 kVAC; 50 … 60 Hz; 1 min
Test voltage (analog output/service interface)	2 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (measurement circuit/ relay output, supply, analog output and service interface)	Double insulation (safe isolation)
Insulation type (analog output/service interface)	Basic insulation
Insulation type (relay output/supply/ analog output and service interface)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Feedthrough for measurement conductor	9.5 mm Ø
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 105 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	80 °C
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Current signal conditioner ▶ Input signal type: Voltage ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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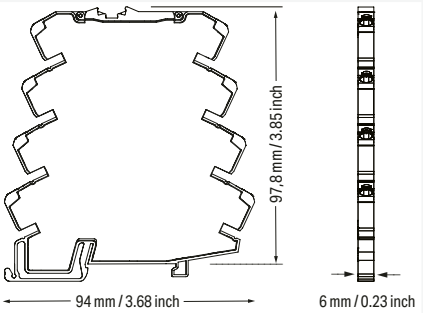


Short description:
WAGO's Rogowski signal conditioner records RMS values from alternating currents via Rogowski coil, converting the input signal into an standard analog signal on the output side.
Digital switching output:
The digital output (DO) allows signaling of a message.Two switching behaviors can be selected for the edge:
GND switching: For all values below the lower threshold or above the upper threshold, the digital output switches to "GND.
U_s switching: For all values below the lower threshold or above the upper threshold, the digital output (DO) matches the supply voltage level.

The preset switching thresholds are 0% and 100% of the input measurement range. These thresholds can be adjusted via the PC configuration interface. The switching threshold hysteresis is 5 mA.

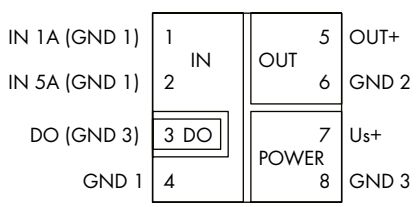
Features:
- PC configuration interface
- Supports different Rogowski coil types
- Digital switching output (configurable switching thresholds)
- Configurable output signal
- Configuration via DIP switch
- 3-way electrical isolation with 2.5 kV test voltage
- No current bar interruption during installation
- Measurement range overflow indication

Safety Information
Input and output must be safely isolated from any hazardous live parts!

Note
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage
Input signal (voltage)	50 Hz sinusoidal signals: 10.05 mVAC (RC1); 40.2 mVAC (RC2A); 90 mVAC (RC2B)
Sensitivity	RC2B: 22.5 mV/kA
Measurement range (current)	AC 500 A (RC1); AC 2000 A (RC2A); AC 4000 A (RC2B)
Frequency range	50 Hz (Sinusoidal signals)
Response threshold	≤ 1 % (of measurement range nominal value)
Resolution (current)	250 mA (RC1); 1 A (RC2A); 1.5 A (RC2B)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 (adjustable)
Signal processing	
Limit frequency	2 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms
Measurement error	
Transmission error (max.)	≤ 1 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C (individual arrangement; -25 … +60 °C (block arrangement))
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61010-2-201

Current signal conditioner ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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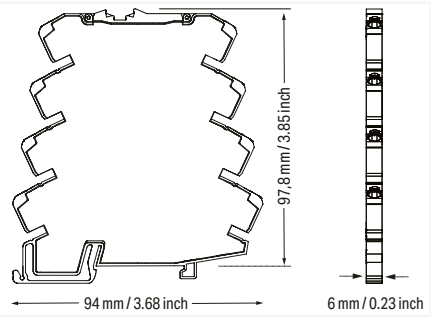


Short description:
WAGO's current signal conditioner measures both 0 … 1 A and 0 … 5 A AC/DC currents, converting the input signal to an standard analog signal at the output.
Digital switching output:
The digital output (DO) allows signaling of a message.Two switching behaviors can be selected for the edge:
GND switching: For all values below the lower threshold or above the upper threshold, the digital output switches to "GND.
U_s switching: For all values below the lower threshold or above the upper threshold, the digital output (DO) matches the supply voltage level.

The preset switching thresholds are 0% and 100% of the input measurement range. These thresholds can be adjusted via the PC configuration interface. The switching threshold hysteresis is 5 mA.

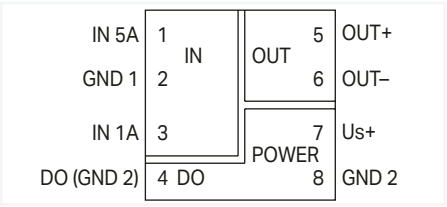
Features:
- PC configuration interface
- True RMS measurement or arithmetic mean value
- Digital switching output (configurable switching thresholds)
- Switchable filter function
- Calibrated measurement range switching
- 3-way electrical isolation with 2.5 kV test voltage
- Extremely fast response times
- Measurement range overflow indication

Safety Information
Input and output must be safely isolated from any hazardous live parts!

Note
Additional setting options via the WAGO Interface Configuration Software
Use shielded signal lines!
Only use shielded signal lines for analog output signals. Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Current
Input signal (current)	0 … 1 AAC/ADC (IN 1); 0 … 5 AAC/ADC (IN 2)
Frequency range	16 … 400 Hz
Input resistance (current input)	47 mΩ (IN 1); 10 mΩ (IN 2)
Input current (max.)	10 A (IN 1; 5 s); 15 A (IN 2; 5 s)
Response threshold	2 mA (IN 1); 4 mA (IN 2)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ (Temperature range restrictions may occur.)
Load impedance (current output)	≤ 600 Ω Temperature range restrictions may occur.
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 (adjustable)
Signal processing	
Measurement method	True RMS measurement; Arithmetic mean value
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.4 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C (at nominal current, individual arrangement; -25 … +60 °C (block arrangement))
Ambient temperature (storage)	-40 … +85 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 15 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 50121-3-2; DNV; EN 61010-2-201

Current signal conditioner ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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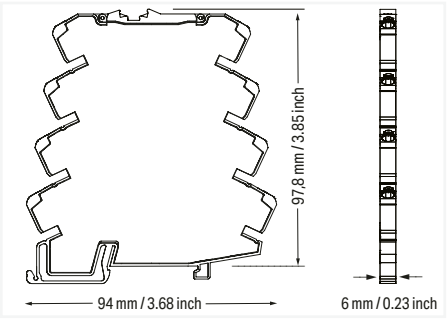


Short description:
WAGO's current signal conditioner measures AC/DC currents up to 5 A, converting the input signal to a standard analog signal at the output.

Features:
- Two isolated measurement inputs for 1 and 5 A AC/DC (when mounted individually: 6 A AC/DC)
- RMS measurement or arithmetic mean value
- A digital signal output reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Switchable filter function
- 3-way electrical isolation with 2.5 kV test voltage

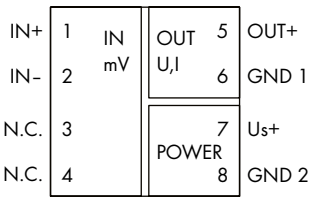
Note
Only the WAGO Interface Configuration Software can be used to set the measurement range of 0 to 6 A.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Current
Input signal (current)	0 … 5 AAC/ADC (IN 1; block arrangement); 0 … 6 AAC/ADC (IN 1; individual arrangement)
Frequency range	16 … 200 Hz
Input resistance (current input)	47 mΩ (IN 1); 10 mΩ (IN 2)
Input current (max.)	15 A (IN 1; 5 s); 10 A (IN 3; 5 s)
Response threshold	10 mA (IN 1); 2 mA (IN 3)
Resolution (current)	1 mA (IN 1); 0.5 mA (IN 3)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (can be inverted, also bipolar)
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (can be inverted, also bipolar)
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Signal processing	
Measurement method	True RMS measurement; Arithmetic mean value
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms (for software filter 3)
Step response (max.)	250 ms
Measurement error	
Transmission error (max.)	≤ 0.5 % (of the full scale value)
Temperature coefficient	1 A input: ≤ 0.01 %/K (typ.); ≤ 0.02 %/K (max.); 5 A input: ≤ 0.02 %/K (typ.); ≤ 0.04 %/K (max.)
Power supply	
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})
Safety and protection	
Rated Voltage	300 V
Measurement category per EN 61010-2-030	CAT II (input 300 VAC)
Note on insulation parameters	**Danger:** Configuration via the service interface must only be performed with a voltage-free measurement input! The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/analog output/supply/service interface)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Double insulation (impedance and basic insulation); Requirement: The GND 1 input is dangerous when active and the measurement is conducted as a low-side measurement!
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Current signal conditioner ▶ Input signal type: Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm

Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C (at nominal current)
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 34 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2, EN 61326-1
EMC emission of interference	EN 61000-6-3; EN 61326-1
Standards/specifications	EN 61010-1

Voltage signal conditioner ▶ Input signal type: Voltage ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



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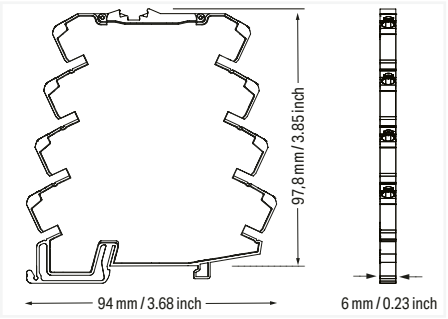


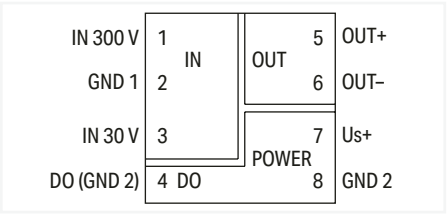
Short description:
WAGO's voltage signal conditioner converts millivolt signals (at the input) into a standard analog signal at the output.

Features:
- PC configuration interface
- Calibrated measurement range switching
- Clipping capability
  for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Note
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage
Input signal (voltage)	±100 mV; 0 … 200 mV; 0 … 300 mV; 0 … 400 mV; 0 … 500 mV; 0 … 600 mV; 0 … 700 mV; 0 … 800 mV; 0 … 900 mV; 0 … 1 V
Input resistance (voltage input)	≥ 1 MΩ
Input voltage (max.)	±31.2 VDC
Measurement span (min.)	10 mV
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	50 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Voltage signal conditioner ▶ Input signal type: Voltage ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



Item No.	PU
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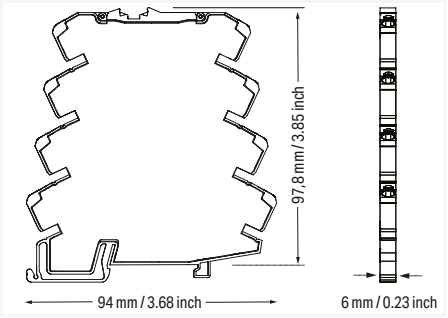


Short description:
WAGO's voltage signal conditioner measures AC/DC voltages up to 300 V, converting the input signal into a standard analog signal at the output.

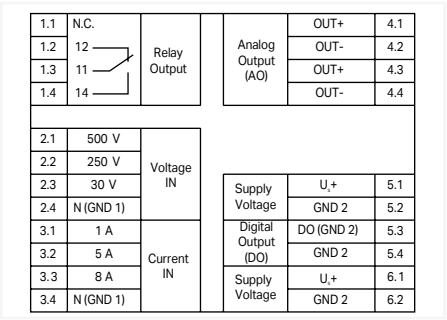
Features:
- Two isolated measurement inputs for 30 and 300 V AC/DC
- RMS measurement or arithmetic mean value
- A digital signal output reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Switchable filter function
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage
Input signal (voltage)	300 VAC/VDC (IN 1); 30 VAC/VDC (IN 2)
Measurement frequency	10 … 100 Hz (AC)
Frequency range	10 … 100 Hz (AC)
Input resistance (voltage input)	≥ 300 kΩ
Response threshold	300 mV (IN 1); 30 mV (IN 2)
Resolution (voltage)	30 mV (IN 1); 3 mV (IN 2)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (can be inverted, also bipolar)
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (can be inverted, also bipolar)
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Signal processing	
Measurement method	RMS measurement; Arithmetic mean value
Limit frequency	2 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	30 ms
Measurement error	
Transmission error (max.)	≤ 0.5 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 46 mA (+ I_{DO})
Safety and protection	
Rated Voltage	300 V; 150 V (UL)
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	**Danger:** Configuration via the service interface must only be performed with a voltage-free measurement input! The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/analog output/supply/service interface)	2.5 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Reinforced insulation (safe isolation)
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Double insulation (impedance and basic insulation); Requirement: The GND 1 input is dangerous when active and the measurement is conducted as a low-side measurement!
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Voltage signal conditioner ▶ Input signal type: Voltage ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm

Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C (at nominal current)
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	80 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Power measurement module ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Width: 22.5 mm



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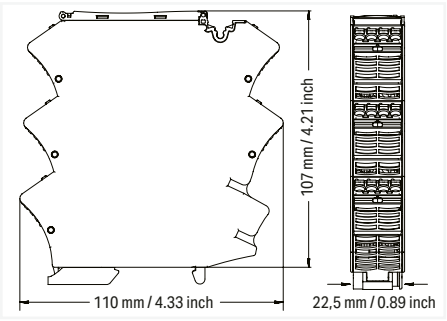


Short description:
WAGO's 1-phase power measurement module monitors and reports signal states with up to two switching thresholds. The sensor and status information that is collected is also converted to a standard analog signal. Current, voltage, effective power, apparent power or reactive power can be selected as the measured variable. Additionally, both frequency and phase angle are displayed.

Features:
- A relay with changeover contact reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Adjustable software filter
- Analog unipolar/bipolar signals (current/voltage) at output
- Additional digital signal output for configured measurement range limits
- The digital output can be configured as a frequency generator or pulse output (S0 interface).

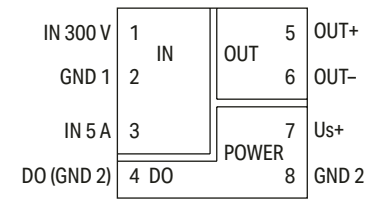
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 6 A is not exceeded.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	Voltage; Current
Input signal (voltage)	500 VAC/VDC (IN 2.1; per EN 61010-1); 300 VAC/VDC (IN 2.1; per UL 61010-1); 250 VAC/VDC (IN 2.2); 30 VAC/VDC (IN 2.3)
Input signal (current)	1 AAC/ADC (IN 3.1); 5 AAC/ADC (IN 3.2); 8 AAC/ADC (IN 3.3)
Frequency range	15 … 400 Hz
Input current (max.)	1.2 × I_N (≤ 60 °C); 1 × I_N (60 … 70 °C)
Input voltage (max.)	1.2 × U_N
Response threshold (voltage)	500 mVAC / 600 mVDC (IN 2.1); 50 mVAC / 500 mVDC (IN 2.2); 20 mVAC / 100 mVDC (IN 2.3)
Response threshold (current)	1.5 mAAC / 7.5 mADC (IN 3.1); 3 mAAC / 10 mADC (IN 3.2); 7.5 mAAC / 12 mADC (IN 3.3)
Resolution (voltage)	50 mV (IN 2.1); 30 mV (IN 2.2); 5 mV (IN 2.3)
Resolution (current)	1 mA (for all measurement ranges)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	±12 V (SELV)
Output signal (current)	±24 mA (SELV)
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	2 (max.)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Configurable functions (DO)	Disabled; U_S/GND switching; Threshold value switch; Frequency generator; Pulse output (S0 interface)
Setting range (frequency generator)	0.3 … 100 Hz
Setting range (pulse output)	1000 … 1 pulses/kW(h)
Output – relay	
Number of changeover/switchover contacts	1
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Measurement method	True RMS measurement (TRMS)
Measured variables (calculated)	Active power; Apparent power; Reactive power; Mains frequency; Phase angle
Limit frequency	2 kHz
Software filter (adjustable)	Filter level: 1 … 30
Step response (max.)	350 ms (for default settings)
Measurement error	
Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 70 mA (+ I_{DO})

Power measurement module ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Width: 22.5 mm

Safety and protection	
Rated Voltage	600 V; 300 V (UL)
Measurement category per EN/UL 61010-2-030	CAT III (input)
Note on insulation parameters	The digital output (DO) is at the potential of the supply. The service interface is located on the analog output potential.
Protection type	IP20
Test voltage	
Test voltage (input IN 2.1/relay output; per EN 61010-1)	5.4 kVAC ; 50 Hz; 5 s; 3.6 kVAC; 50 Hz; 1 min
Test voltage (input IN 2.1/relay output; per UL 61010-1)	3.51 kVAC; 60 Hz; 1 min
Test voltage (input/supply and analog output/relay output)	3.51 kVAC; 50 … 60 Hz; 1 min
Test voltage (supply/analog output)	3.6 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	III
Pollution degree	2
Insulation type (input/supply and analog output/relay output)	Reinforced insulation (safe isolation)
Insulation coordination	
Overvoltage category	III
Pollution degree	2
Insulation type (input IN 2.1/relay output)	Reinforced insulation (safe isolation)
Insulation type (input/supply and analog output/relay output)	Double insulation (impedance and basic insulation); Requirement: The N (GND 1) input is dangerous when active!
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 25 K)
Temperature range of connection cable (UL)	95 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3
EMC emission of interference	EN 61000-6-3; EN 61326-2-3
Standards/specifications	EN 61010-1; UL 61010-1; UL 61010-2-201

Power measurement module ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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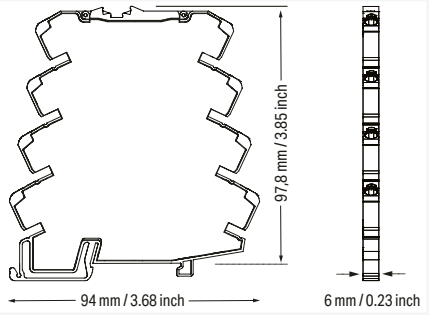


Short description:
WAGO's power measurement module measures both AC/DC voltages and currents, converting the input signal into a standard analog signal at the output.
Measured value processing can be switched between RMS value or arithmetic mean value and between effective, apparent or reactive power, and phase angle.

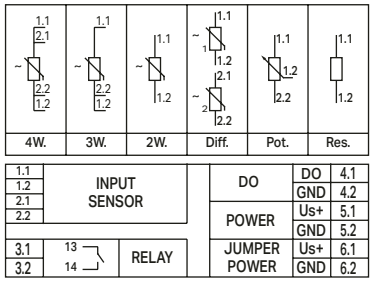
Features:
- Two isolated measurement inputs for both AC/DC voltages and currents
- RMS measurement or arithmetic mean value
- A digital signal output reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Switchable filter function
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Voltage; Current
Input signal (voltage)	300 VAC/VDC (IN 1)
Input signal (current)	0 … 5 AAC/ADC (IN 2)
Measurement frequency	15 … 70 Hz (AC)
Frequency range	15 … 70 Hz (AC)
Input resistance (current input)	≤ 10 mΩ
Input resistance (voltage input)	≥ 300 kΩ
Input current (max.)	10 A AC/DC (IN 2; permanent)
Input voltage (max.)	600 V (IN 1; permanent)
Response threshold	300 mV (IN 1); 10 mA (IN 2)
Resolution (voltage)	30 mV (IN 1)
Resolution (current)	1 mA (IN 2)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V (can be inverted, also bipolar)
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA (can be inverted, also bipolar)
Load impedance (voltage output)	≥ 1 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Signal processing	
Measurement method	RMS measurement; Arithmetic mean value
Limit frequency	2 kHz
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	100 ms
Measurement error	
Transmission error (max.)	≤ 0.5 % (of the full scale value)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 46 mA (+ I_{DO})
Safety and protection	
Rated Voltage	300 V; 150 V (UL)
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	**Danger:** Configuration via the service interface must only be performed with a voltage-free measurement input! The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/analog output/supply/service interface)	2.5 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Reinforced insulation (safe isolation)
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply/service interface)	Double insulation (impedance and basic insulation); Requirement: The GND 1 input is dangerous when active and the measurement is conducted as a low-side measurement!
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches

Power measurement module ▶ Input signal type: Voltage; Current ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C (at nominal current)
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	80 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Threshold value switch ▶ Input signal type: RTD sensors; Potentiometer; Resistance ▶ Number of make/switch-on contacts: 1 ▶ Digital output (DO); Relay, 1 make contact; Simulation ▶ Width: 12.5 mm



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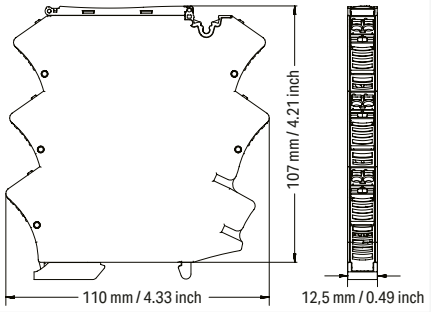


Short description:
WAGO's RTD threshold value switch for RTD sensors, potentiometers and resistors monitors and reports signals for up to two switching thresholds.

Features:
- Both digital signal output and relay with make contact react to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Configurable RTD factor
- Adjustable software filter
- Safe three-way isolation with 4 kV test voltage per EN 61010-1

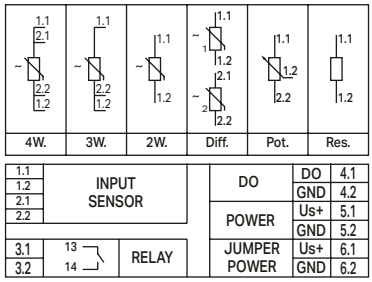
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 6 A is not exceeded.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	RTD sensors; Potentiometer; Resistance
Input (RTD sensors)	
Sensor types (RTD)	Pt100; Pt200; Pt500; Pt1000; Pt5000; Pt10000; Pt10 … Pt20000
Sensor connection	2-wire; 3-wire; 4-wire; differential
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Input (resistors)	
Input range (resistor)	0 … 100 kΩ
Input range (potentiometer)	0 … 100 kΩ
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Output – relay	
Number of make/switch-on contacts	1
Contact material (relay)	AgNi + Au
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	8 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Software filter (adjustable)	Moving average value (filter level: 30)
Hysteresis	Adjustable via DIP switch or software
Step response (typ.)	60 ms (2-wire); 360 ms (3-wire); 540 ms (4-wire); 360 ms (potentiometer)
Measurement error	
Transmission error (max.)	± 1 K
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Operating data	
Continuous current (max.)	6 A

Threshold value switch ▶ Input signal type: RTD sensors; Potentiometer; Resistance ▶ Number of make/switch-on contacts: 1 ▶ Digital output (DO); Relay, 1 make contact; Simulation ▶ Width: 12.5 mm

Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	Temperature sensors are not intended for use in dangerous circuits, provided the external temperature sensors used do not have basic insulation in accordance with EN/UL 61010-1 (300 VAC; overvoltage category II; pollution degree 2). The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/relay output/supply)	4 kVAC; 60 Hz; 1 min
Test voltage (input/service interface)	3 kVAC; 60 Hz; 1 min
Test voltage (relay output/service interface)	4 kVAC; 60 Hz; 1 min
Test voltage (supply/service interface)	2.5 kVAC; 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input, supply and service interface/relay output)	Reinforced insulation (safe isolation)
Insulation type (input/supply/service interface)	Basic insulation
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	12.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	80 °C
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Threshold value switch ▶ Input signal type: RTD sensors; Potentiometer; Resistance ▶ Number of make/switch-on contacts: 1 ▶ Digital output (DO); Relay, 1 make contact; Simulation; For railway applications ▶ Width: 12.5 mm



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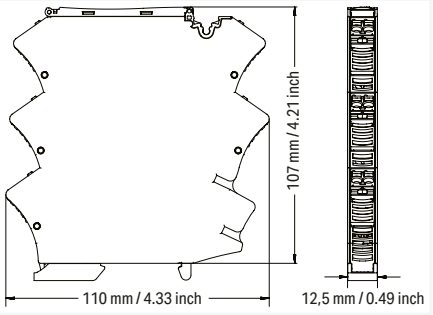


Short description:
WAGO's RTD threshold value switch for RTD sensors, potentiometers and resistors monitors and reports signals for up to two switching thresholds.

Features:
- Both digital signal output and relay with make contact react to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values)
- Configurable RTD factor
- Adjustable software filter
- Safe three-way isolation with 4 kV test voltage per EN 61010-1
- For railway applications

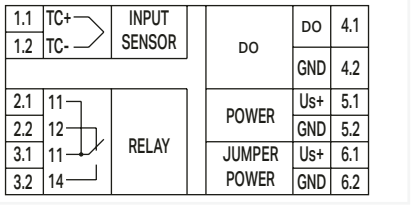
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 2 A is not exceeded.

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	RTD sensors; Potentiometer; Resistance
Input (RTD sensors)	
Sensor types (RTD)	Pt100; Pt200; Pt500; Pt1000; Pt5000; Pt10000; Pt10 … Pt20000
Sensor connection	2-wire; 3-wire; 4-wire; differential
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Input (resistors)	
Input range (resistor)	0 … 100 kΩ
Input range (potentiometer)	0 … 100 kΩ
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Output – relay	
Number of make/switch-on contacts	1
Contact material (relay)	AgNi + Au
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	8 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	60 ms (2-wire); 360 ms (3-wire); 540 ms (4-wire); 360 ms (potentiometer)
Measurement error	
Transmission error (max.)	± 1 K
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Operating data	
Continuous current (max.)	6 A
Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Note on insulation parameters	Temperature sensors are not intended for use in dangerous circuits, provided the external temperature sensors used do not have basic insulation in accordance with EN 61010-1 (300 VAC; overvoltage category II; pollution degree 2). The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/relay output/supply)	4 kVAC; 60 Hz; 1 min
Test voltage (input/service interface)	3 kVAC; 60 Hz; 1 min
Test voltage (relay output/service interface)	4 kVAC; 60 Hz; 1 min
Test voltage (supply/service interface)	2.5 kVAC; 60 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input, supply and service interface/relay output)	Reinforced insulation (safe isolation)
Insulation type (input/supply/service interface)	Basic insulation

Threshold value switch ▶ Input signal type: RTD sensors; Potentiometer; Resistance ▶ Number of make/switch-on contacts: 1 ▶ Digital output (DO); Relay, 1 make contact; Simulation; For railway applications ▶ Width: 12.5 mm

Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	12.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 95 %
Operating altitude (max.)	2000 m
Environmental conditions per DIN EN 50155:2018-05	
Altitude	A1
Operating temperature class	OT3
Extended operating temperature at switch-on	ST1
Quick temperature changes	H1
Power supply interruptions	S1
Switching classes (power supply)	C2
Service life	L4 at 40 °C (max.)
Protective coatings for populated PCBs	PC2
Temporary supply voltage dips	Criterion B
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Threshold value switch ▸ Input signal type: TC sensors ▸ Number of changeover/switchover contacts: 1 ▸ Digital output (DO); Relay with 1 changeover contact; Simulation ▸ Width: 12.5 mm



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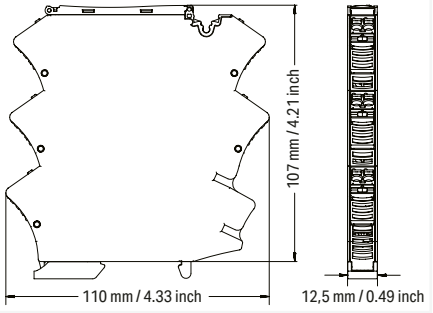


Short description:
WAGO's thermocouple threshold value switch for TC sensors monitors and reports signals of up to two switching thresholds.

Features:
- Both digital signal output and relay with changeover contact react to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Adjustable software filter
- Safe three-way isolation with 4 kV test voltage per EN 61010-1

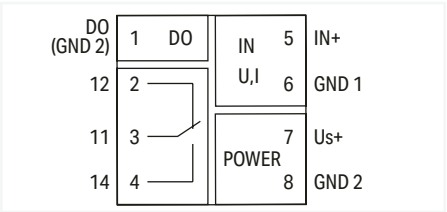
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 6 A is not exceeded.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	TC sensors
Input (TC sensors)	
Sensor types (TC)	Type J; Type K; Type E; Type N; Type R; Type S; Type T; Type B; Type C
Temperature measurement range (TC)	-210 … 1200 °C (Type J); -200 … 1372 °C (Type K)
Cold junction compensation	ON/OFF (default: ON)
Cold junction error	3 K (typ. 2 K)
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Output – relay	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Pull-in time (typ.)	8 ms
Drop-out time (typ.)	4 ms
Bounce time (typ.)	8 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Software filter (adjustable)	Moving average value (filter level: 30)
Hysteresis	Adjustable via DIP switch or software
Step response (typ.)	60 ms (cold junction compensation Off); 360 ms (cold junction compensation On)
Measurement error	
Transmission error (max.)	± 1 K
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Operating data	
Continuous current (max.)	6 A
Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	Temperature sensors are not intended for use in dangerous circuits, provided the external temperature sensors used do not have basic insulation in accordance with EN/UL 61010-1 (300 VAC; overvoltage category II; pollution degree 2). The digital output (DO) is at the potential of the supply.
Protection type	IP20
Test voltage	
Test voltage (input/relay output/supply)	4 kVAC; 60 Hz; 1 min
Test voltage (input/service interface)	3 kVAC; 60 Hz; 1 min
Test voltage (relay output/service interface)	4 kVAC; 60 Hz; 1 min
Test voltage (supply/service interface)	2.5 kVAC; 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input, supply and service interface/relay output)	Reinforced insulation (safe isolation)
Insulation type (input/supply/service interface)	Basic insulation

Threshold value switch ▶ Input signal type: TC sensors ▶ Number of changeover/switchover contacts: 1 ▶ Digital output (DO); Relay with 1 changeover contact; Simulation ▶ Width: 12.5 mm

Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	12.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	80 °C
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61326-2-3; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373; EN 50121-3-2

Threshold value switch ▶ Input signal type: Voltage; Current ▶ Number of changeover/switchover contacts: 1 ▶ Digital output (DO); Relay with 1 changeover contact ▶ Width: 6 mm



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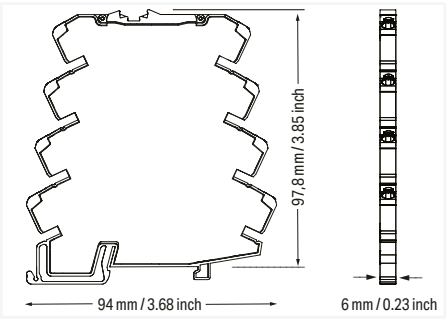


Short description:
This threshold value switch for analog signals monitors standard analog signals and reports signals exceeding a preset threshold.
Configurable digital switching outputGND switching:
The digital output (DO) switches to "GND" when the input values are either below the lower switching threshold or above the upper switching threshold.
U_s switching: The digital output (DO) outputs the supply voltage for input values that are either below the lower switching threshold or above the upper switching threshold.

The preset switching thresholds are 0% and 100% (± 0.25 V / ± 0.5 mA) of the input measurement range. The switching thresholds can be adjusted using the interface configuration software.

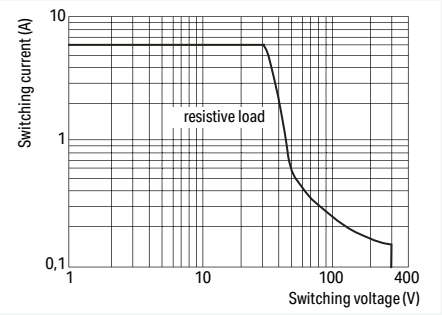
Features:
- PC configuration interface
- Configurable digital switching outputGND switching
- Changeover contact relay output
- Calibrated measurement range switching
- Threshold value configuration via DIP switch and teach-in function via push/slide switch

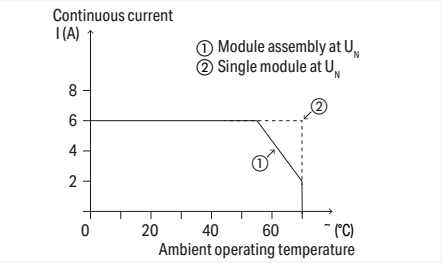
Safety Information
Input and digital output must be safely isolated from any hazardous live parts!

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software; Push/slide switch
Input	
Input signal type	Voltage; Current
Input signal (voltage)	±10 V; 0 … 30 V
Input signal (current)	±20 mA
Input resistance (current input)	≤ 200 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	22 mA
Input voltage (max.)	31 V
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	2 (adjustable)
Output – relay	
Number of changeover/switchover contacts	1
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Drop-out time (typ.)	4 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 30 s (via software)
Signal processing	
Hysteresis	Adjustable via DIP switch or software (valid for relay and DO)
Step response (typ.)	16 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 25 mA (+ I_{DO})
Operating data	
Continuous current (max.)	6 A
Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/relay output/supply)	3 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/supply)	Reinforced insulation (safe isolation)
Insulation type (relay)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

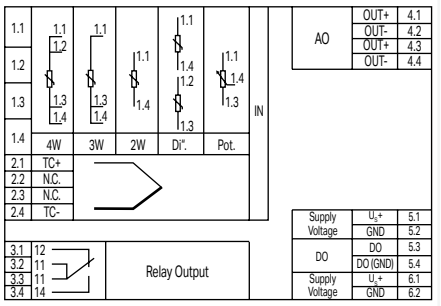
Threshold value switch ▶ Input signal type: Voltage; Current ▶ Number of changeover/switchover contacts: 1 ▶ Digital output (DO); Relay with 1 changeover contact ▶ Width: 6 mm



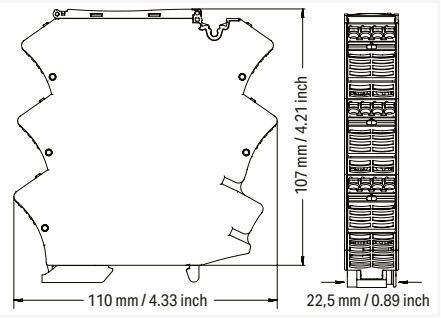


Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61131-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61131-2; EN 61326-1; EN 50121-3-2
Standards/specifications	EN 61373

Temperature signal conditioner ▶ Input signal type: RTD sensors; Potentiometer; Resistance; TC sensors ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Relay with 1 changeover contact; Simulation ▶ Width: 22.5 mm



	Item No.	PU
	2857-535	1



Short description:
WAGO's RTD TC temperature signal conditioner for RTD sensors, potentiometers, resistors and thermocouples monitors and reports signals for up to two switching thresholds. The sensor and status information that is collected is also converted to a standard analog signal.

Features:
- A relay with changeover contact reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Configurable Pt factor
- Adjustable software filter
- Input of customer-specific sensors via the interface configuration software
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1
- Analog unipolar/bipolar signals (current/voltage) at output
- Additional digital signal output for configured measurement range limits
- Adjustable transfer characteristic

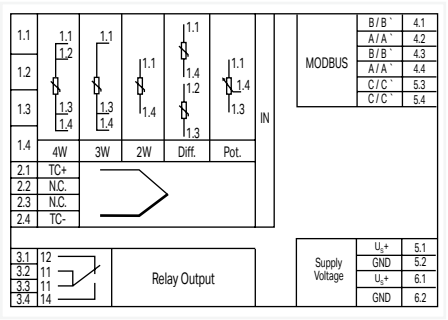
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 1 A is not exceeded.

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	RTD sensors; Potentiometer; Resistance; TC sensors
Input (RTD sensors)	
Sensor types (RTD)	Pt10 … Pt2000 (expandable)
Sensor connection	2-wire; 3-wire; 4-wire; differential; potentiometer
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Measurement span (RTD) min.	50 K
Input (TC sensors)	
Sensor types (TC)	Type J; Type K; Type E; Type R; Type N; Type S; Type T; Type B; Type C
Temperature measurement range (TC)	-200 … 1200 °C (Type J); -200 … 1372 °C (Type K); -200 … 1000 °C (Type E); 250 … 1768 °C (Type R); -200 … 1300 °C (Type N); -50 … 1664 °C (Type S); -200 … 400 °C (Type T); 250 … 1820 °C (Type B); 0 … 2320 °C (Type C)
Measurement span (TC) min.	100 K
Cold junction compensation	ON/OFF (Default: ON)
Cold junction error	3 K (typ. 2 K)
Input (resistors)	
Input range (resistor)	0 … 10 kΩ
Input range (potentiometer)	0 … 10 kΩ
Measurement span (min.)	50 Ω
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	±12 V
Output signal (current)	±24 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage (applied) - 0.3 V
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	1 or 2 (adjustable)
Configurable rise/fall delay time (DO)	0 … 60 s (via software)
Output – relay	
Number of changeover/switchover contacts	1
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Signal processing	
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	130 ms (2-wire); 700 ms (3-wire); 700 ms (4-wire); 600 ms (differential); 500 ms (potentiometer); 150 ms (cold junction compensation Off); 400 ms (cold junction compensation On)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ (100 K/set measurement range [K]) %
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	-60 … +30 %
Current consumption at nominal supply voltage	≤ 70 mA (+ I_{DO})

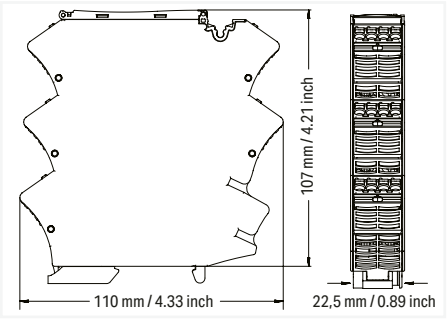
Temperature signal conditioner ▶ Input signal type: RTD sensors; Potentiometer; Resistance; TC sensors ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Relay with 1 changeover contact; Simulation ▶ Width: 22.5 mm

Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	The digital output (DO) is at the potential of the supply. The service interface is located on the analog output potential. The DIN-rail contact (functional ground) is capacitively coupled to the analog output.
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Test voltage (input/analog output/relay output/supply)	3 kVAC; 50 … 60 Hz; 1 min
Test voltage (input/DIN-rail contact/ relay output/supply)	3 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/ relay output/supply)	Reinforced insulation (safe isolation)
Insulation type (input/DIN-rail contact/ relay output/supply)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	85 °C
Relative humidity	5 … 95 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3
EMC emission of interference	EN 61000-6-3; EN 61326-2-3
Standards/specifications	EN 61010-1; EN 61373

Temperature signal conditioner ▶ Input signal type: RTD sensors; Potentiometer; Resistance; TC sensors ▶ Relay with 1 changeover contact; Simulation ▶ Width: 22.5 mm



	Item No.	PU
	2857-535/000-001	1



Short description:
WAGO's RTD TC temperature signal conditioner for RTD sensors, potentiometers, resistors and thermocouples monitors and reports signals for up to two switching thresholds. The sensor and status information that is collected is also made available to a higher-order device (e.g., a PLC) via a bus connection.

Features:
- A relay with changeover contact reacts to configured measurement range limits (on/off switching delay and threshold value switch function can be configured with up to two threshold values).
- Configurable Pt factor
- Adjustable software filter
- Input of customer-specific sensors via the interface configuration software
- Safe 3-way isolation with 3 kV test voltage per EN 61010-1
- Output-end RS-485 interface with Modbus protocol
- Terminating resistor can be adjusted at the output
- Adjustable transfer characteristic

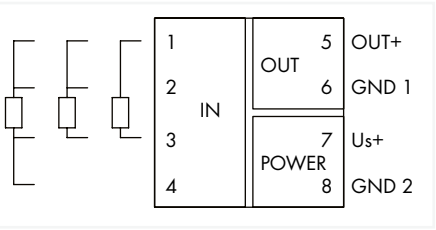
Note
This product is supplied with 24 VDC, which can be commoned using lateral push-in type jumper bars: (6.1) U_S+ (BR) and (6.2) GND 2 (BR). With this variant, it is necessary to ensure that the maximum permissible total current of 1 A is not exceeded.

Configuration	
Configuration options	WAGO Interface Configuration Software; Rotary encoder switch
Input	
Input signal type	RTD sensors; Potentiometer; Resistance; TC sensors
Input (RTD sensors)	
Sensor types (RTD)	Pt10 … Pt2000 (expandable)
Sensor connection	2-wire; 3-wire; 4-wire; differential; potentiometer
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Measurement span (RTD) min.	50 K
Input (TC sensors)	
Sensor types (TC)	Type J; Type K; Type E; Type R; Type N; Type S; Type T; Type B; Type C
Temperature measurement range (TC)	-210 … 1200 °C (Type J); -200 … 1372 °C (Type K); -200 … 1000 °C (Type E); 250 … 1768 °C (Type R); -200 … 1300 °C (Type N); -50 … 1664 °C (Type S); -200 … 400 °C (Type T); 250 … 1820 °C (Type B); 0 … 2320 °C (Type C)
Measurement span (TC) min.	100 K
Cold junction compensation	ON/OFF (Default: ON)
Cold junction error	3 K (typ. 2 K)
Input (resistors)	
Input range (resistor)	0 … 10 kΩ
Input range (potentiometer)	0 … 10 kΩ
Measurement span (min.)	50 Ω
Output – Modbus®	
Number of devices (max.)	64
Addressing	Via rotary encoder switch: 1 … 99; Via service interface: 1 … 247 (rotary encoder switch set to "0")
Parity	Even; others can be configured
Connector	6 x *picoMAX*® for daisy chain configuration
Bus length (max.)	1000 m
Terminating resistor	Can be activated; 150 Ω; 120 Ω + 1 nF
Parameter	Read input registers (0x04): • Measured value: address (0x0000); data type (float); access (read) • Relay status: address (0x0002); data type (word); access (read)
Output – relay	
Number of changeover/switchover contacts	1
Switching Voltage, Max.	250 VAC
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 60 s (via software)
Communication	
Communications	Modbus RTU
Interface	RS-485 (2-wire)
Number of devices (max.)	64
Bus length (max.)	≤ 1000 m
Transmission rate	9.6 … 19.2 kBd
Terminating resistor	Can be activated; 150 Ω; 120 Ω + 1 nF
Addressing	Via rotary encoder switch: 1 … 99; Via service interface: 1 … 247 (rotary encoder switch set to "0")
Signal processing	
Software filter (adjustable)	Moving average value (filter level: 30)
Step response (typ.)	130 ms (2-wire); 700 ms (3-wire); 700 ms (4-wire); 600 ms (differential); 500 ms (potentiometer); 150 ms (cold junction compensation Off); 400 ms (cold junction compensation On)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ (100 K/set measurement range [K]) %
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	-60 … +30 %
Current consumption at nominal supply voltage	≤ 50 mA

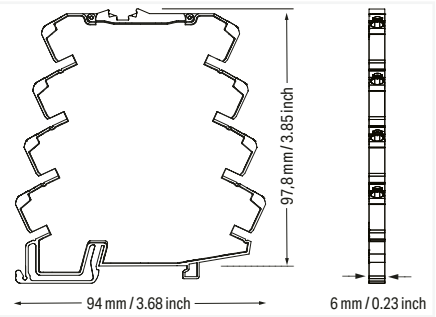
Temperature signal conditioner ▶ Input signal type: RTD sensors; Potentiometer; Resistance; TC sensors ▶ Relay with 1 changeover contact; Simulation ▶ Width: 22.5 mm

Safety and protection	
Rated Voltage	300 V
Rated voltage of the measurement circuit connections per EN 61010-2-030	AC 300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Note on insulation parameters	The service interface is located on the service interface potential. The DIN-rail contact (functional ground) is capacitively coupled to the communication interface.
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	3 kVAC; 50 Hz; 1 min
Test voltage (input/communication interface/relay output/supply)	3 kVAC; 50 … 60 Hz; 1 min
Test voltage (input/DIN-rail contact/ relay output/supply)	3 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/DIN-rail contact/ relay output/supply)	Reinforced insulation (safe isolation)
Insulation type (input/communication interface/relay output/supply)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Connector	6 x *picoMAX*® for daisy chain configuration
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 110 mm x 107 mm
Mounting type	DIN-35 rail
Environmental requirements	
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	85 °C
Relative humidity	5 … 95 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-2-3
EMC emission of interference	EN 61000-6-3; EN 61326-2-3
Standards/specifications	EN 61010-1; EN 61373

Temperature signal conditioner ▶ Input signal type: Pt sensors; Resistance ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



Item No.	PU
857-800	1

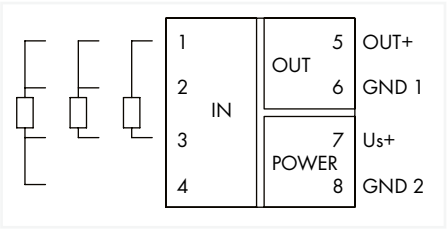


Short description:
WAGO's temperature signal conditioner records Pt100, Pt200, Pt500, and Pt1000 sensors, as well as resistors up to 4.5 kOhm, converting the temperature signal into a standard analog signal at the output.

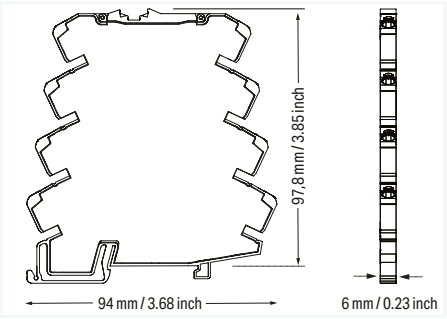
Features:
- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kOhm
- 2-, 3- and 4-wire connection technology
- Calibrated measurement range switching
- Detects a sensor wire break/short circuit
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Pt sensors; Resistance
Input (RTD sensors)	
Sensor types (RTD)	Pt100; Pt200; Pt500; Pt1000
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Input (resistors)	
Input range (resistor)	0 … 1 kΩ; 0 … 4.5 kΩ
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	180 ms (2-wire); 360 ms (3-wire)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ ((10 K/set measurement range [K]) + 0.1) %
Temperature coefficient	≤ 0.02 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: Pt sensors; Resistance ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



Item No.	PU
857-801	1



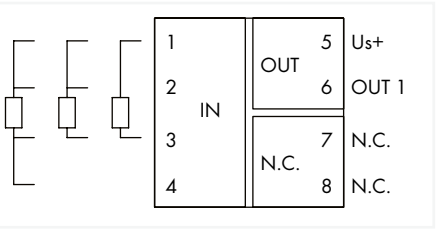
Short description:
WAGO's temperature signal conditioner records Pt100, Pt200, Pt500, and Pt1000 sensors, as well as resistors up to 4.5 kOhm, converting the temperature signal into a standard analog signal at the output.

Features:
- PC configuration interface
- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kOhm
- 2-, 3- and 4-wire connection technology
- Detects calibrated measurement range switching
- Detects a sensor wire break/short circuit
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

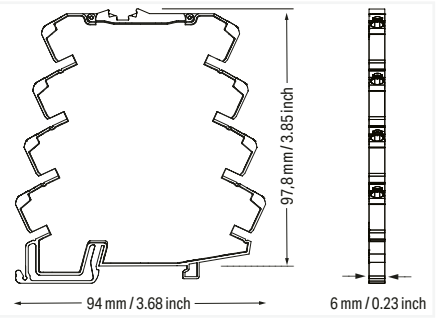
Note
Additional setting options as well as output signal inversion via WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Pt sensors; Resistance
Input (RTD sensors)	
Sensor types (RTD)	Pt100; Pt200; Pt500; Pt1000
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Measurement span (RTD) min.	50 K
Input (resistors)	
Input range (resistor)	0 … 1 kΩ; 0 … 4.5 kΩ
Measurement span (min.)	50 Ω
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	180 ms (2-wire); 360 ms (3-wire)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ ((10 K/set measurement range [K]) + 0.1) %
Temperature coefficient	≤ 0.02 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: Pt sensors; Resistance ▶ Output signal type: Current ▶ Width: 6 mm



Item No.	PU
857-815	1

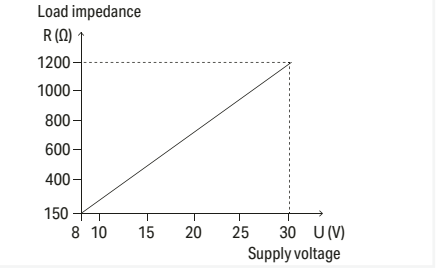


Short description:
WAGO's loop-powered RTD temperature signal conditioner records sensors (Pt100, Pt200, Pt500, Pt1000) and resistors up to 4.5 kΩ, converting the temperature signal into a standard analog signal at the output.
The loop-powered RTD temperature signal conditioner provides safe isolation between input and output with 3 kV test voltage per EN 61010-1.

Features:
- No additional supply voltage required
- For Pt100, Pt200, Pt500 and Pt1000 sensors, as well as resistors up to 4.5 kOhm
- 2-, 3- and 4-wire connection technology
- Calibrated measurement range switching
- Detects a sensor wire break/short circuit

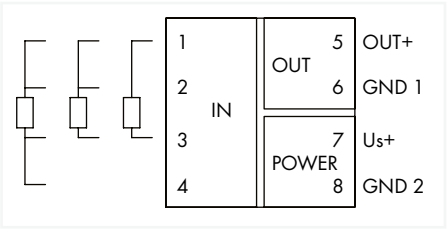
Safety Information
The signal conditioner must only be configured with the DIP switch in the de-energized state.

Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.



Configuration	
Configuration options	DIP switch
Input	
Input signal type	Pt sensors; Resistance
Input (RTD sensors)	
Sensor types (RTD)	Pt100; Pt200; Pt500; Pt1000
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +850 °C
Measurement span (RTD) min.	50 K
Input (resistors)	
Input range (resistor)	0 … 1 kΩ; 0 … 4.5 kΩ
Output – analog	
Output signal type	Current
Output signal (current)	4 … 20 mA; 20 … 4 mA
Load impedance (current output)	See derating graphic
Signal processing	
Step response (typ.)	1000 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ ((40 K/set measurement range [K]) + 0.1) %
Transmission error (under interference)	≤ 5 %
Temperature coefficient	≤ 0.02 %/K
Power supply	
Power supply type	Loop-powered (via output)
Supply voltage	8 … 30 VDC (Power is derived from the output circuit.)
Power loss (max.) $P_{l\,(max.)}$	0.7 W
Safety and protection	
Rated Voltage	300 V; 150 V (UL)
Measurement category per EN/UL 61010-2-030	CAT II (input)
Protection type	IP20
Test voltage	
Test voltage (input/analog output)	3 kVAC; 50 … 60 Hz; 1 min
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output)	Reinforced insulation (safe isolation)
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/ supply)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Temperature range of connection cable (UL)	75 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-3; EN 61326-1; EN 50121-3-2
Standards/specifications	EN 61010-1; EN 61373

Temperature signal conditioner ▶ Input signal type: Pt sensors; Cu sensors ▶ Output signal type: Current; Voltage ▶ Width: 6 mm



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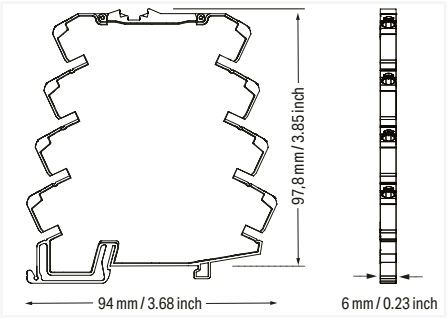
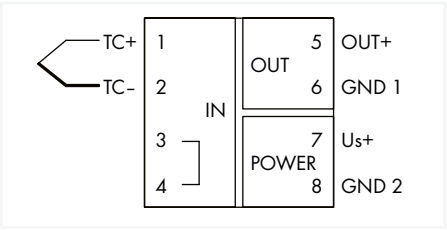


Short description:
WAGO's temperature signal conditioner records signals from Pt46 and Cu53 sensors, converting a temperature signal into a standard analog signal at the output.

Features:
- 2-, 3- and 4-wire connection technology
- Calibrated measurement range switching
- Detects a sensor wire break/short circuit
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Pt sensors; Cu sensors
Input (RTD sensors)	
Sensor types (RTD)	Pt46; Cu53
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Sensor power supply (RTD) max.	≤ 0.5 mA
Temperature measurement range (RTD)	-200 … +300 °C (Pt46); 0 … 180 °C (Cu53)
Measurement span (RTD) min.	50 K
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	180 ms (2-wire); 360 ms (3-wire)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ ((10 K/set measurement range [K]) + 0.1) %
Temperature coefficient	≤ 0.02 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: TC sensors ▶ Output signal type: Current; Voltage ▶ Width: 6 mm



Item No.	PU
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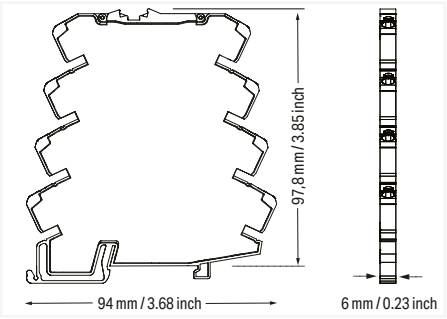
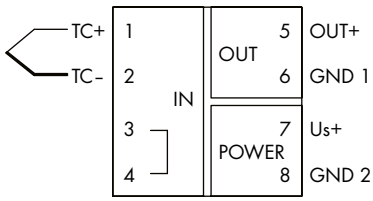


Short description:
WAGO's temperature signal conditioner records signals from thermocouples (type K, S, B, R) and converts the temperature signal into a standard analog signal at the output.
Features:
- For thermocouples of type K, S, B and R
- Cold junction compensation (On/Off)
- Calibrated measurement range switching
- Detects a sensor wire break
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	TC sensors
Input (TC sensors)	
Sensor types (TC)	Type K; Type S; Type B; Type R
Temperature measurement range (TC)	0 … 1200 °C (Type K); 0 … 1600 °C (Type S); 600 … 1800 °C (Type B); 0 … 1600 °C (Type R)
Cold junction compensation	ON/OFF (default: ON)
Cold junction error	3 K (typ. 2 K)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	60 ms (cold junction compensation Off); 120 ms (cold junction compensation On)
Measurement error	
Transmission error (typ.)	≤ 0.1 % at full measurement span
Transmission error for the set measurement range	≤ (150 K/set measurement range [K]) %
Temperature coefficient	≤ 0.04 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4

Temperature signal conditioner ▶ Input signal type: TC sensors ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



Item No.	PU
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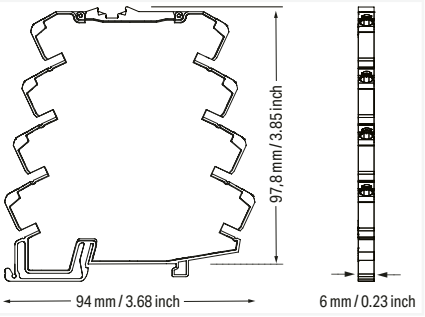
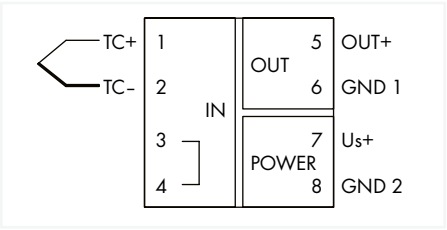


Short description:
WAGO's temperature signal conditioner records signals from thermocouples (type J, K) and converts the temperature signal into a standard analog signal at the output.

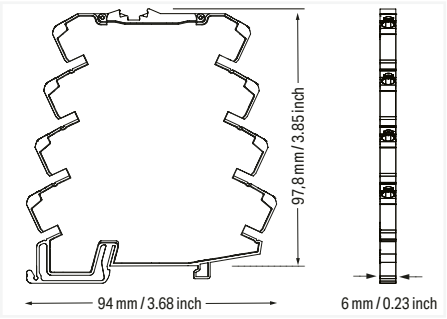
Features:
- For type J and K thermocouples
- Cold junction compensation (On/Off)
- Calibrated measurement range switching
- Detects a sensor wire break
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	TC sensors
Input (TC sensors)	
Sensor types (TC)	Type J; Type K
Temperature measurement range (TC)	-200 … 1200 °C (Type J); -200 … 1350 °C (Type K)
Measurement span (TC) min.	100 K
Cold junction compensation	ON/OFF (default: ON)
Cold junction error	3 K (typ. 2 K)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	60 ms (cold junction compensation Off); 120 ms (cold junction compensation On)
Measurement error	
Transmission error (typ.)	≤ 0.1% at max. measurement span (type J, K)
Transmission error for the set measurement range	≤ (150 K/set measurement range [K]) %
Temperature coefficient	≤ 0.04 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: TC sensors ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



Item No.	PU
857-811	1



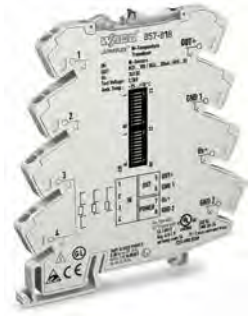
Short description:
WAGO's temperature signal conditioner records signals from thermocouples of type J and K (E, R, N, S, T, B, C) and converts the temperature signal into a standard analog signal.

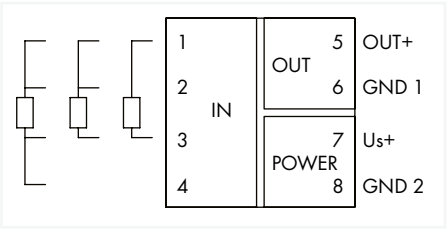
Features:
- PC configuration interface
- For thermocouples of type J and K (E, R, N, S, T, B, C)
- Cold junction compensation (On/Off)
- Calibrated measurement range switching
- Detects a sensor wire break
- Detects measurement range underflow/overflow
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Note
Additional setting options as well as output signal inversion via WAGO Interface Configuration Software

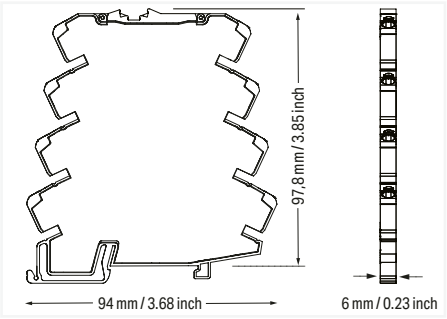
Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	TC sensors
Input (TC sensors)	
Sensor types (TC)	Type J; Type K
Temperature measurement range (TC)	-210 … 1200 °C (Type J); -200 … 1350 °C (Type K)
Measurement span (TC) min.	100 K
Cold junction compensation	ON/OFF (default: ON)
Cold junction error	3 K (typ. 2 K)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	60 ms (cold junction compensation Off); 120 ms (cold junction compensation On)
Measurement error	
Transmission error (typ.)	≤ 0.1% at max. measurement span (type J, K)
Transmission error for the set measurement range	≤ (150 K/set measurement range [K]) %
Temperature coefficient	≤ 0.04 %/K
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: Ni sensors ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm





Item No.	PU
857-818	1

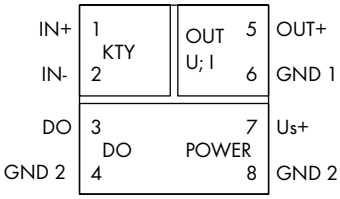


Short description:
WAGO's Ni temperature signal conditioner (Ni = nickel) records signals from Ni sensors featuring all standard characteristics and converts the temperature signal into a standard analog signal at the output.

Features:
- For Ni100, Ni120, Ni200; Ni500 and Ni1000 sensors
- Calibrated measurement range switching
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	Ni sensors
Input voltage (max.)	±31.2 VDC
Input (RTD sensors)	
Sensor types (RTD)	Ni100; Ni120; Ni200; Ni500; Ni1000
Sensor connection	2-wire; 3-wire; 4-wire (switchable)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Step response (typ.)	60 ms (2-wire); 120 ms (3-wire); 30 ms (4-wire)
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Temperature signal conditioner ▶ Input signal type: KTY sensors ▶ Output signal type: Current; Voltage ▶ Digital output (DO); Clipping ▶ Width: 6 mm



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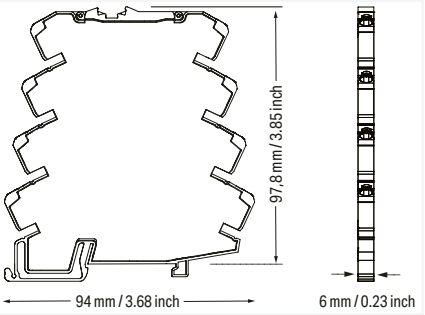
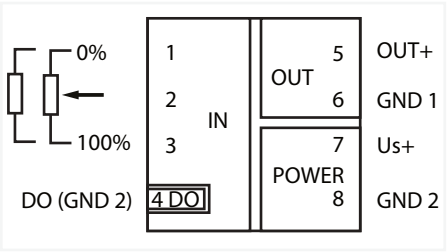


Short description:
WAGO's KTY temperature signal conditioner records signals from KTY sensors featuring all standard characteristics and converts the temperature signal into a standard analog signal at the output.

Features:
- Supports all standard KTY sensors
- Calibrated measurement range switching
- Clipping capability for analog signal limitation to output end values
- 3-way electrical isolation with 2.5 kV test voltage

Configuration	
Configuration options	DIP switch
Input	
Input signal type	KTY sensors
Input voltage (max.)	±30 VDC
Input (KTY sensors)	
Sensor types (KTY)	KTY81-110; KTY81-120; KTY81-121; KTY81-122; KTY81-150; KTY81-210; KTY81-220; KTY81-221; KTY81-222; KTY81-250; KTY82-110; KTY82-120; KTY82-121; KTY82-122; KTY82-150; KTY82-220; KTY82-221; KTY82-222; KTY82-250; KTY83-110; KTY83-120; KTY83-121; KTY83-122; KTY83-150; KTY83-151; KTY84-130; KTY84-150; KTY84-151; KTY16; KTY19; ST13; ST20
Sensor connection	2-wire
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Signal processing	
Step response (typ.)	50 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 40 mA (+ I_{DO})
Safety and protection	
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV

Potentiometer signal conditioner ▶ Input signal type: Potentiometer; Resistance ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



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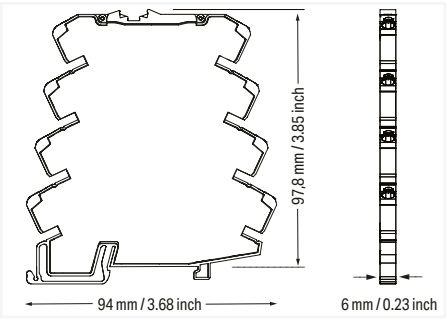


Short description:
WAGO's potentiometer signal conditioner records resistance signals (e.g., from potentiometers) and converts them into a standard analog signal. The device is supplied with 24 VDC (nominal voltage). It is set via DIP switch or push/slide switch.

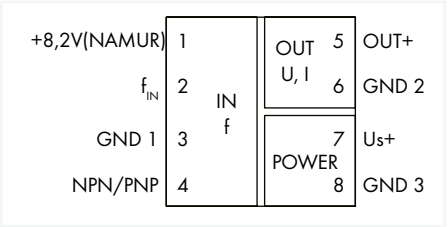
Features:
- PC configuration interface
- Calibrated measurement range switching
- Automatic maximum value identification fot the connected potentiometer

Safety Information
Input and output must be safely isolated from any hazardous live parts!

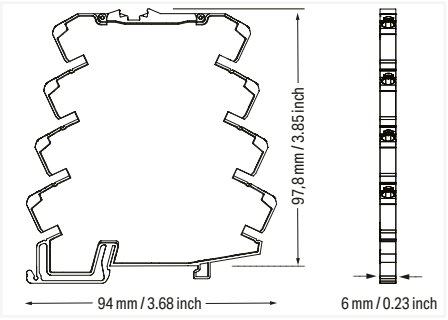
Note
Use shielded signal lines!
Only use shielded signal lines for analog input and output signals.
Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software; Push/slide switch
Input	
Input signal type	Potentiometer; Resistance
Input (resistors)	
Input range (resistor)	0 … 100 kΩ
Input range (potentiometer)	0 … 100 kΩ
Potentiometer supply voltage (max.)	2.5 V
Measurement span (min.)	100 Ω
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Output – digital	
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	2 (adjustable switching points)
Signal processing	
Step response (typ.)	32 ms
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})
Power consumption (max.)	4 W
Power loss (max.) $P_{l\,(max.)}$	0.9 W
Safety and protection	
Rated Voltage	300 V
Overvoltage category	II
Pollution degree	2
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2 kVAC; 50 Hz; 1 min
Insulation coordination	
Insulation type (input/analog output/supply)	Functional insulation
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 9 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV; EN 61010-1

Frequency signal conditioner ▶ Input signal type: Frequency generators; NAMUR sensors; NPN/PNP transistor outputs; Mechanical contact (dry contact) ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm



Item No.	PU
857-500	1



Short description:
WAGO's frequency signal conditioner collects 0.1 … 120 kHz signals from NAMUR, NPN or PNP sensors and converts them into a standard analog signal.

Features:
- PC configuration interface
- Signal acquisition from NAMUR, NPN or PNP sensors
- Calibrated measurement range switching
- 3-way electrical isolation with 2.5 kV test voltage

Safety Information
Input and output must be safely isolated from any hazardous live parts!

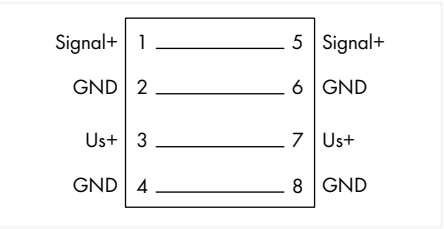
Note
Use shielded signal lines!
Only use shielded signal lines for analog output signals. Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.
Additional setting options via WAGO Interface Configuration Software or WAGO Interface Configuration App

Configuration	
Configuration options	DIP switch; WAGO Interface Configuration Software
Input	
Input signal type	Frequency generators; NAMUR sensors; NPN/PNP transistor outputs; Mechanical contact (dry contact)
Input (sensor type 1)	
Sensor type 1	Frequency generator; NPN/PNP transistor output with pull-up or pull-down resistor
Measurement range (frequency) 1	0.1 Hz … 120 kHz
Pulse length 1	≥ 1 µs
Measurement span 1 (min.)	10 Hz
Signal level	1.5 V; 10 V; 20 V (switchable)
Input voltage (max.)	± 31.2 VDC
Signal form	any
Coupling	AC/DC (adjustable; AC above 10 Hz)
Input resistance	10 kΩ
Input (sensor type 2)	
Sensor type 2	NAMUR sensor per DIN EN 50227
Measurement range (frequency) 2	0.1 Hz … 1 kHz
Pulse length 2	≥ 500 µs
Measurement span 2 (min.)	10 Hz
Sensor supply	8.2 VDC
Signal current (0)	≤ 1.2 mA
Signal current (1)	≥ 2.1 mA
Hysteresis	0.45 mA
Short-circuit current (max.)	14 mA
Short circuit monitoring	≥ 4.7 mA
Wire break monitoring	≤ 0.2 mA
Input resistance 2	≤ 600 Ω
Input (sensor type 3)	
Sensor type 3	NPN/PNP transistor output without pull-up or pull-down resistor; Mechanical contact (dry contact)
Measurement range (frequency) 3	0.1 Hz … 20 kHz
Pulse length 3	≥ 25 µs
Measurement span 3 (min.)	100 Hz
Open-circuit voltage	5 VDC
NPN residual voltage	≤ 1.5 V
PNP switching voltage	≥ 7.5 V (+ residual voltage U_{CE} sat)
Output – analog	
Output signal type	Current; Voltage
Output signal (voltage)	0 … 5 V; 1 … 5 V; 0 … 10 V; 2 … 10 V
Output signal (current)	0 … 10 mA; 2 … 10 mA; 0 … 20 mA; 4 … 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω
Signal processing	
Conversion time	Peak-time measurement method (> 400 Hz): < 20 ms; Pulse time measurement method (< 400 Hz): < 200 µs + $T_{Cycle\ duration}$
Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K
Power supply	
Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA

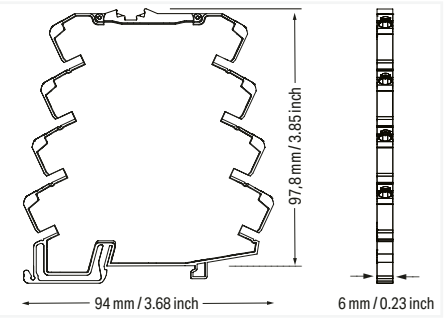
Frequency signal conditioner ▶ Input signal type: Frequency generators; NAMUR sensors; NPN/ PNP transistor outputs; Mechanical contact (dry contact) ▶ Output signal type: Current; Voltage ▶ Clipping ▶ Width: 6 mm

Safety and protection	
Rated Voltage	300 V
Protection type	IP20
Test voltage	
Test voltage (input/output/supply)	2.5 kVAC; 50 Hz; 1 min
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/ supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable (UL)	75 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	EN 61373; EN 61010-2-201

Through terminal block; Supply module



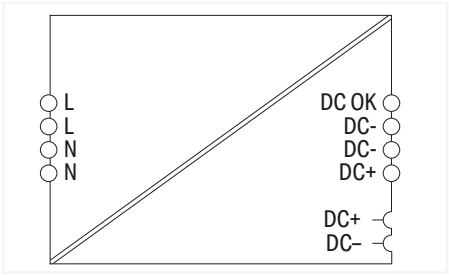
Item No.	PU
857-979	25



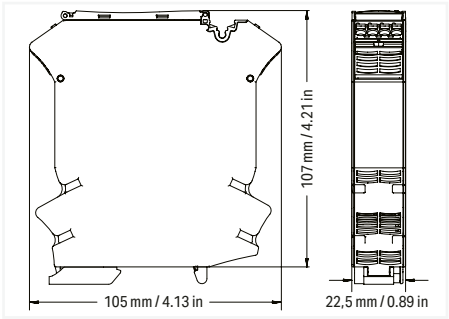
Short description:
This supply and through module transmits electrically isolated signals, e.g., in conjunction with the 857-980 Interface Adapter for analog signals (Item No. 857-980). When used as a supply module, it transmits the power from the connected clamping points to the adjacent modules via push-in type jumper bars.

Operating data	
Operating voltage	≤ 30 VAC/VDC
Continuous current (max.)	8 A
Contact resistance	≤ 10 mΩ
Safety and protection	
Pollution degree	2
Protection type	IP20
Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and specifications	
Conformity marking	CE
Standards/specifications	DNV

Power supply ▶ Phases: 1 ▶ Nominal output voltage $U_{o\,nom}$: 24 VDC (SELV) ▶ Nominal output current: 1 A



	Item No.	PU
	787-2852	1



Features:

- Switched-mode power supply in 22.5 mm wide 2857 Series housing; device shares a common profile with the 2857 and 857 Series Signal Conditioners.
- Both 24 VDC and 0 V output voltage can be easily supplied to adjacent modules via 859-4xx Jumpers.
- Pluggable *picoMAX*® Connection Technology
- Natural convection cooling
- DC OK message as active signal output (24 VDC, 20 mA)
- Integrated redundancy diode enables easy fail-safe power supply via parallel connection of two power supplies.
- Approvals for worldwide applications

Input	
Phases	1
Nominal input voltage $U_{i\,nom}$	1 x 100 … 240 VAC
Input voltage range	1 x 85 … 264 VAC; 120 … 372 VDC
Nominal mains frequency range	47 … 63 Hz; 0 Hz
Input current I_i	≤ 0.28 A (240 VAC; nominal load); ≤ 0.49 A (100 VAC; nominal load)
Inrush current	≤ 30 A
Power factor	≥ 0.6 (230 VAC; Nominal load; per EN 61000-3-2)
Power factor correction (PFC)	None
Mains failure hold-up time	≥ 20 ms (100 VAC)
Output	
Nominal output voltage $U_{o\,nom}$	24 VDC (SELV)
Nominal output current $I_{o\,nom}$	1 A
Nominal output power	24 W
Residual ripple	≤ 100 mV (peak-to-peak)
Current limitation	1.1 x $I_{o\,nom}$ (typ.)
Overload behavior	Constant current
Signaling and communication	
Signaling	1 x LED DC OK (green); 1 x Overload LED (red); 1 x Active signal output DC OK (24 VDC; 20 mA)
Operation status indicator	Green LED (U_o > 21.5 V); Red LED (overload)
Efficiency/power losses	
Power loss P_l	≤ 1 W; ≤ 4.3 W (230 VAC; nominal load)
Power loss (max.) $P_{l\,(max.)}$	5 W (100 VAC / 24 VDC; 1 A)
Efficiency (typ.)	86 % (230 VAC; nominal load); 84 % (110 VAC; nominal load)
Circuit protection	
Internal fuse	T 2 A / 250 VAC
Backup fusing (recommended)	Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C
Safety and protection/Environmental requirements	
Protection class/Protection type	II / IP20; per EN 60529
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit; ≤ 29 … 31 VDC (in the event of a fault)
Short-circuit-protected/Open-circuit-proof	Yes/Yes
Parallel operation/Series operation	Yes, for 2 devices of the same type/Yes, for 2 devices of the same type
MTBF	> 500,000 h (at 25 °C per IEC 61709)
Ambient temperature (operation)	-25 … +70 °C (nominal mounting position; -25 … +55 °C (in any mounting position))
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	-2 %/K (> 60 °C)
Connection data	
Number of jumper slots	4
Connection type	Input/output/signaling
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	22.5 mm x 105 mm x 107 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; EN 60950-1; DNV
Standards/specifications (pending)	UL 60950; cULus 508; ANSI/ISA 12.12.01 (Class I Div. 2); ATEX/IECEx

Interface configuration software

All signal conditioners offer user-friendly configuration at a glance using the interface configuration software.

Software features:
- Simulation of input and output parameters (2857 Series)
- Automatic module recognition
- Configuration and visualization of process values
- Parameterization of the digital switch output (threshold functionality)
- Communication via WAGO USB Service Cable (750-923)
- Creation of configuration reports
- Backup of configuration settings

Free software download at:
www.wago.com/configuration-software

Accessories

Push-in type jumper bar; light gray; insulated; 18 A		
Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)

Item no. suffixes for colored push-in type jumper bars		
	Item No.	
yellow	... /000-029	
red	... /000-005	
blue	... /000-006	

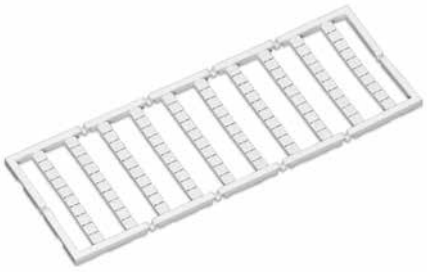
Comb-style jumper bar; insulated		
	Item No.	PU
2-way	281-482	100

Operating tool with a partially insulated shaft; Type 2; Blade: 3.5 x 0.5 mm		
	Item No.	PU
	210-720	1

End stop		
Width	Item No.	PU
6 mm	249-116	1
10 mm	249-117	1
14 mm	249-197	1

Test pin		
	Item No.	PU
	735-500	1

Marking



WMB Multi Marking System		
Marking	**Item No.**	PU
plain	**793-501**	5 cards
1 ...10 (10 x)	**793-502**	5 cards
11 ... 20 (10 x)	**793-503**	5 cards
21 ... 30 (10 x)	**793-504**	5 cards
31 ... 40 (10 x)	**793-505**	5 cards
41 ... 50 (10 x)	**793-506**	5 cards
1 ... 50 (2 x)	**793-566**	5 cards

Marking Strip for TOPJOB® S; white; plain; 11 mm wide		
	Item No.	PU
50 m reel	**2009-110**	1

WAGO Energy Measurement Technology

WAGO Energy Measurement Technology

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	3-Phase Power Measurement Modules 2857 Series	404
	Current Transformers Plug-In Current Transformers; with CAGE CLAMP® Connection Technology; 855 Series Plug-In Current Transformers; for Billing Measurement; 855 Series Plug-In Current Transformers; with *picoMAX*® Connection Technology; 855 Series Split-Core Current Transformers; 855 Series	 412 416 418 419
	Rogowski Coils 855 Series	428
	Terminal Block Assemblies for Current and Voltage Transformers 2007 Series	430
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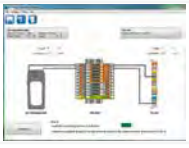
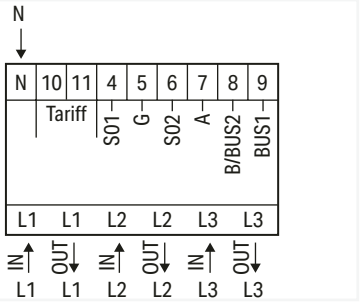
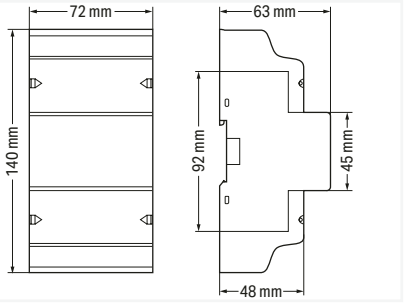
	**Line Length Calculation for Current Transformers**	448

Energy meter ▶ for direct connection ▶ Input current I_i: ≤ 65 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 4PU ▶ MID



Item No.	PU
879-3000	1



Short description:
Optimizing energy consumption requires comprehensive energy measurement. WAGO's portfolio has energy meters that make that easier while offering several key advantages. They use push-in connection technology with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement. These slim profiles save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency, as well as current, voltage and power for all phases. And the user can conveniently scan all of these energy characteristics at a glance on a large, illuminated display.

Features:
- Time savings at every stage thanks to Push-in CAGE CLAMP® and lever
- Real space savings: 72 mm wide (4PU)
- The communications pro: M-Bus/Modbus® interface and two S0 pulse outputs
- Full transparency at a glance: display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: touch-sensitive controls and configuration app via *Bluetooth*®

Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth*®
Input	
Input signal type	Voltage; Current
Network configuration	Two-wire, three-wire and four-wire networks
Reference current I_{ref}	5 A
Measured variable	Voltage; Current; Electrical output; Mains frequency
Nominal input voltage $U_{i\,nom}$	3 x 230 … 400 VAC
Input voltage range	±20 %
Input current I_i	≤ 65 A
Frequency range	45 … 60 Hz
Communication	
Communications	Modbus®; M-Bus; *Bluetooth*®
Interface	RS-485 (2-wire); 2 x S0 interfaces (configurable)
Indicators	LCD with backlight
Rate control input	230 VAC
Signal processing	
Measured variables (calculated)	Active and reactive energy in supply and reference direction
Measurement type (load profile)	No
Measured value acquisition	for direct connection
Measurement error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power supply	
Power supply type	Via measurement circuit
Power consumption $P_{max.}$ (phase; active power)	2 W
Power consumption $P_{max.}$ (phase; apparent power)	10 VA
Safety and protection/Environmental requirements	
Dielectric strength	4 kV; 1 min
Impulse withstand voltage (1.2/50 µs)	6 kV
Pollution degree	2
Protection class	II
Protection type	IP51 / IP20; IP51 (front side); IP20 (connection)
Ambient temperature (operation)	-40 … +70 °C
Relative humidity	≤ 75 % (for storage ≤ 95 %)
Connection data	
Connection position	Output bottom (PU)
Design	4PU
Connection object type 1	
Connection type	Voltage/current
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2616 Series
Actuation type	Lever
Strip length	18 … 20 mm / 0.71 … 0.79 inches
Solid/fine-stranded/AWG	0.75 … 16 mm² / 0.75 … 25 mm² / 18 … 4 AWG
Connection object type 2	
Connection type	Communication/rate control input
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2604 Series
Actuation type	Lever
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Solid/fine-stranded/AWG	0.2 … 4 mm² / 0.2 … 4 mm² / 24 … 12 AWG

Accessories

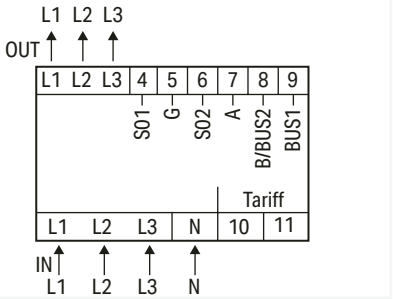
Communication module; Modbus TCP

Item No.	PU
879-9000	1

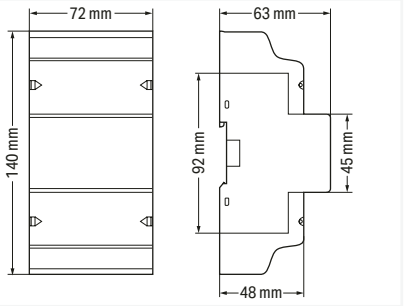
Energy meter ▶ for direct connection ▶ Input current I_i: ≤ 65 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 4PU ▶ MID

Physical data/Mechanical data/Material Data	
Note (dimensions)	Height without cover: 92 mm
Width x Height x Depth	72 mm x 140 mm x 63 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Housing material	PC 940A
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 50470-1/3
Accounting guideline	MID

Energy meter ▶ for direct connection ▶ Input current I_i: ≤ 65 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 4PS ▶ MID



	Item No.	PU
	879-3020	1



Short description:
Crucial for trimming costs, comprehensive energy measurement is necessary to optimize energy consumption. WAGO's portfolio has energy meters that simplify this task while offering several key advantages. They use push-in connection technology with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement. These slim profiles save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency, as well as current, voltage and power for all phases. And the user can conveniently scan all of these energy characteristics at a glance on a large, illuminated display.

Features:
- Push-in CAGE CLAMP® and lever save time at every stage
- Real space savings: 72 mm wide (4PS)
- Measurement of supply and purchase
- Energy measurement in four tariffs
- The communications pro: M-Bus/Modbus® interface and two S0 pulse outputs
- Full transparency at a glance: display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: touch-sensitive controls and configuration app via *Bluetooth*®

Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth*®
Input	
Input signal type	Voltage; Current
Network configuration	Two-wire, three-wire and four-wire networks
Reference current I_{ref}	5 A
Measured variable	Voltage; Current; Electrical output; Mains frequency
Nominal input voltage $U_{i\,nom}$	3 x 230 … 400 VAC
Input voltage range	±20 %
Input current I_i	≤ 65 A
Frequency range	45 … 60 Hz
Communication	
Communications	Modbus®; M-Bus; *Bluetooth*®
Interface	RS-485 (2-wire); 2 x S0 interfaces (configurable)
Indicators	LCD with backlight
Rate control input	230 VAC
Signal processing	
Measured variables (calculated)	Active and reactive energy in supply and reference direction
Measurement type (load profile)	No
Measured value acquisition	for direct connection
Measurement error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power supply	
Power supply type	Via measurement circuit
Power consumption $P_{max.}$ (phase; active power)	2 W
Power consumption $P_{max.}$ (phase; apparent power)	10 VA
Safety and protection/Environmental requirements	
Dielectric strength	4 kV; 1 min
Impulse withstand voltage (1.2/50 µs)	6 kV
Pollution degree	2
Protection class	II
Protection type	IP51 / IP20; IP51 (front side); IP20 (connection)
Ambient temperature (operation)	-40 … +70 °C
Relative humidity	≤ 75 % (for storage ≤ 95 %)
Connection data	
Connection position	Output top (PS)
Design	4PS
Connection object type 1	
Connection type	Voltage/current
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2616 Series
Actuation type	Lever
Strip length	18 … 20 mm / 0.71 … 0.79 inches
Solid/fine-stranded/AWG	0.75 … 16 mm² / 0.75 … 25 mm² / 18 … 4 AWG
Connection object type 2	
Connection type	Communication/rate control input
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2604 Series
Actuation type	Lever
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Solid/fine-stranded/AWG	0.2 … 4 mm² / 0.2 … 4 mm² / 24 … 12 AWG

Accessories

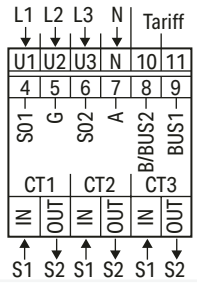
Communication module; Modbus TCP

Item No.	PU
879-9000	1

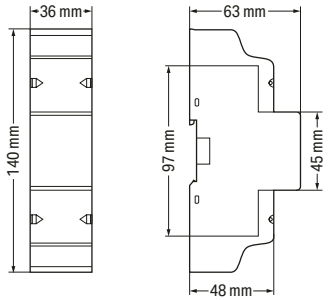
Energy meter ▶ for direct connection ▶ Input current I_i: ≤ 65 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 4PS ▶ MID

Physical data/Mechanical data/Material Data	
Note (dimensions)	Height without cover: 92 mm
Width x Height x Depth	72 mm x 140 mm x 63 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Housing material	PC 940A
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 50470-1/3
Accounting guideline	MID

Energy meter ▶ for transformer connection; ▶ Input current I_i: ≤ 5 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 2PU CT ▶ MID



	Item No.	PU
	879-3040	1



Short description:
Crucial for trimming costs, comprehensive energy measurement is necessary to optimize energy consumption. WAGO's portfolio has energy meters that simplify this task while offering several key advantages. They use push-in connection technology with a lever, making them connect quickly and easily. Versions for current transformers are even slimmer at only 35 mm. These slim profiles save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency, as well as current, voltage and power for all phases. And the user can conveniently scan all of these energy characteristics at a glance on a large, illuminated display.

Features:
- Push-in CAGE CLAMP® and lever save time at every stage
- Real space savings: 35 mm wide (2PU CT)
- Measurement of supply and purchase
- Energy measurement in four tariffs
- The communications pro: M-Bus/Modbus® interface and two S0 pulse outputs
- Full transparency at a glance: display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: touch-sensitive controls and configuration app via *Bluetooth*®

Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth*®
Input	
Input signal type	Voltage; Current
Network configuration	Two-wire, three-wire and four-wire networks
Reference current I_{ref}	1 A
Current transformer (secondary)	1; 5 A
Current transformer ratio	1:1 … 9999 : 1 / 5:5 … 9995 : 5
Measured variable	Voltage; Current; Electrical output; Mains frequency
Nominal input voltage $U_{i\,nom}$	3 x 230 … 400 VAC
Input voltage range	±20 %
Input current I_i	≤ 5 A
Frequency range	45 … 60 Hz
Communication	
Communications	Modbus®; M-Bus; *Bluetooth*®
Interface	RS-485 (2-wire); 2 x S0 interfaces (configurable)
Indicators	LCD with backlight
Rate control input	230 VAC
Signal processing	
Measured variables (calculated)	Active and reactive energy in supply and reference direction
Measurement type (load profile)	No
Measured value acquisition	for transformer connection;
Measurement error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power supply	
Power supply type	Via measurement circuit
Power consumption $P_{max.}$ (phase; active power)	2 W
Power consumption $P_{max.}$ (phase; apparent power)	10 VA
Safety and protection/Environmental requirements	
Dielectric strength	4 kV; 1 min
Impulse withstand voltage (1.2/50 µs)	6 kV
Pollution degree	2
Protection class	II
Protection type	IP51 / IP20; IP51 (front side); IP20 (connection)
Ambient temperature (operation)	-40 … +70 °C
Relative humidity	≤ 75 % (for storage ≤ 95 %)
Connection data	
Connection position	Output bottom (PU)
Design	2PU CT
Connection object type 1	
Connection type	Voltage/current
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2604 Series
Actuation type	Lever
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Solid/fine-stranded/AWG	0.2 … 4 mm² / 0.2 … 4 mm² / 24 … 12 AWG
Connection object type 2	
Connection type	Communication/rate control input
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2604 Series
Actuation type	Lever
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Solid/fine-stranded/AWG	0.2 … 4 mm² / 0.2 … 4 mm² / 24 … 12 AWG

Accessories

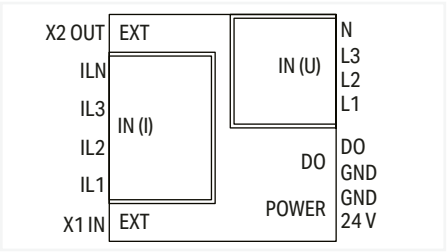
Communication module; Modbus TCP

	Item No.	PU
	879-9000	1

Energy meter ▶ for transformer connection; ▶ Input current I_i: ≤ 5 A ▶ Nominal input voltage $U_{i\,nom}$: 3 x 230 … 400 VAC ▶ Frequency range: 45 … 60 Hz ▶ Modbus®; M-Bus; *Bluetooth*® ▶ RS-485 (2-wire); 2 x S0 interfaces (configurable) ▶ 2PU CT ▶ MID

Physical data/Mechanical data/Material Data	
Note (dimensions)	Height without cover: 97 mm
Width x Height x Depth	36 mm x 140 mm x 63 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Housing material	PC 940A
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 50470-1/3
Accounting guideline	MID

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL) ▶ Input signal (current): 1 AAC (current transformer) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)



	Item No.	PU
	2857-570/024-001	1

Short description:
WAGO's 3-Phase Power Measurement Module in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® interface. In addition, the measured variables can be stored on a microSD card.

Features:
- Current measurement via 1 A current transformer
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® interface
- Configurable digital signal output as pulse output

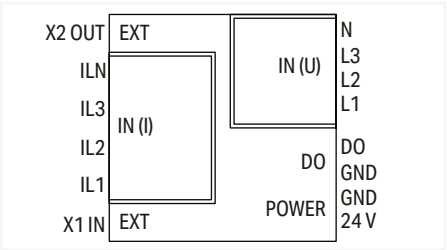
Note
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	Voltage; Current; RTD sensors
Network configuration	3-phase power measurement with N-conductor (4-conductor); 3-phase power measurement without N-conductor (3-conductor)
Input current (max.)	1 AAC
Response threshold	10 mA
Resolution (current)	10 mA
Measured variable	Voltage; Current; Electrical output; Power factor; RTD
Input signal (voltage)	277 VAC (ULN); 480 VAC (ULL)
Input signal (current)	1 AAC (current transformer)
Frequency range	50 … 60 Hz (Harmonics analysis: 0 … 3.3 kHz)
Input resistance (current input)	22 mΩ
Input resistance (voltage input)	1.5 MΩ
Output – Modbus®	
Number of devices (max.)	32
Addressing	Via interface configuration software
Connector	2 x RJ-45 (daisy chain configuration)
Output – digital	
Configurable functions (DO)	Threshold value switch; Pulse output (S0 interface)
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Communication	
Communications	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of devices (max.)	32
Addressing	Via interface configuration software
Signal processing	
Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Outputs; Energy sources; Power factors; Mains frequency; Harmonics analysis (up to 41st harmonic); Total Harmonic Distortion (THD)
Signal form	any periodic signals (considering the threshold frequencies)
Type of memory card	WAGO 758-879/000-3102 (microSD; 2 GB)
Limit frequency	15.9 kHz
Measurement error	
Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})
Safety and protection/Environmental requirements	
Rated Voltage	600 V
Overvoltage category	III
Pollution degree	2
Safe isolation	Input/supply and communication per EN 61010-1
Requirement (N input)	Neutral conductors that are part of the mains circuit are considered dangerous voltage.
IL_x input requirement	Coils/converters with basic insulation
Protection type	IP20
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (non-condensing)

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL) ▶ Input signal (current): 1 AAC (current transformer) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)

Connection data	
Connector	2 x RJ-45 (daisy chain configuration)
Connection object type 1	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 804 Series
Strip length	10 … 11 mm / 0.39 … 0.43 inches
Solid/fine-stranded/AWG	0.25 … 2.5 mm² / 0.25 … 2.5 mm² / 24 … 14 AWG
Connection object type 2	
Connection type	Current/power supply/DO
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 805 Series
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	72 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL) ▶ Input signal (current): 5 AAC (current transformer) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)



	Item No.	PU
	2857-570/024-005	1

Short description:
WAGO's 3-Phase Power Measurement Module in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® interface. In addition, the measured variables can be stored on a microSD card.

Features:
- Current measurement via 5 A current transformer
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® interface
- Configurable digital signal output as pulse output

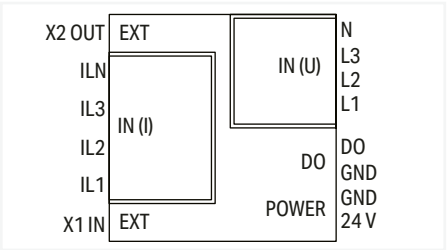
Note
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	Voltage; Current; RTD sensors
Network configuration	3-phase power measurement with N-conductor (4-conductor); 3-phase power measurement without N-conductor (3-conductor)
Input current (max.)	5 AAC
Response threshold	5 mA
Resolution (current)	0.15 mA
Measured variable	Voltage; Current; Electrical output; Power factor; RTD
Input signal (voltage)	277 VAC (ULN); 480 VAC (ULL)
Input signal (current)	5 AAC (current transformer)
Frequency range	50 … 60 Hz (Harmonics analysis: 0 … 3.3 kHz)
Input resistance (current input)	5 mΩ
Input resistance (voltage input)	1.5 MΩ
Output – Modbus®	
Number of devices (max.)	32
Addressing	Via interface configuration software
Connector	2 x RJ-45 (daisy chain configuration)
Output – digital	
Configurable functions (DO)	Threshold value switch; Pulse output (S0 interface)
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Communication	
Communications	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of devices (max.)	32
Addressing	Via interface configuration software
Signal processing	
Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Outputs; Energy sources; Power factors; Mains frequency; Harmonics analysis (up to 41st harmonic); Total Harmonic Distortion (THD)
Signal form	any periodic signals (considering the threshold frequencies)
Type of memory card	WAGO 758-879/000-3102 (microSD; 2 GB)
Limit frequency	15.9 kHz
Measurement error	
Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})
Safety and protection/Environmental requirements	
Rated Voltage	600 V
Overvoltage category	III
Pollution degree	2
Safe isolation	Input/supply and communication per EN 61010-1
Requirement (N input)	Neutral conductors that are part of the mains circuit are considered dangerous voltage.
IL_x input requirement	Coils/converters with basic insulation
Protection type	IP20
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (non-condensing)

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL) ▶ Input signal (current): 5 AAC (current transformer) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)

Connection data	
Connector	2 x RJ-45 (daisy chain configuration)
Connection object type 1	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 804 Series
Strip length	10 … 11 mm / 0.39 … 0.43 inches
Solid/fine-stranded/AWG	0.25 … 2.5 mm² / 0.25 … 2.5 mm² / 24 … 14 AWG
Connection object type 2	
Connection type	Current/power supply/DO
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 805 Series
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	72 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL); 90 mVAC (WAGO Rogowski Coils RC xxx) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)



	Item No.	PU
	2857-570/024-000	1

Short description:
WAGO's 3-phase power measurement module in a DIN-rail-mount enclosure measures electrical data in three-phase supply networks – remotely from the control level. Measured variables such as active/apparent/reactive power, energy consumption, power factor, phase angle and frequency can be accessed via Modbus® interface. In addition, the measured variables can be stored on a microSD card.

Features:
- Current measurement via Rogowski Coils RC xxx
- Mobile measurement and storage of measured values on microSD card
- Configuration and display of measured values during operation via configuration interface
- Compact device in DIN-rail-mount enclosure saves space used for building technology
- Communication of measured values via Modbus® interface
- Configurable digital signal output as pulse output

Note
Additional setting options via the WAGO Interface Configuration Software

Configuration	
Configuration options	WAGO Interface Configuration Software
Input	
Input signal type	Voltage; Current; RTD sensors
Network configuration	3-phase power measurement with N-conductor (4-conductor); 3-phase power measurement without N-conductor (3-conductor)
Sensitivity	22.5 mV/kA (WAGO Rogowski Coils RC xxx)
Measured variable	Voltage; Current; Electrical output; Power factor; RTD
Input signal (voltage)	277 VAC (ULN); 480 VAC (ULL); 90 mVAC (WAGO Rogowski Coils RC xxx)
Measurement range (current)	4 x AC 4000 A (WAGO Rogowski Coils RC xxx)
Frequency range	50 … 60 Hz (Harmonics analysis: 0 … 3.3 kHz)
Output – Modbus®	
Number of devices (max.)	32
Addressing	Via interface configuration software
Connector	2 x RJ-45 (daisy chain configuration)
Output – digital	
Configurable functions (DO)	Threshold value switch; Pulse output (S0 interface)
Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Communication	
Communications	Modbus RTU
Interface	RS-485 (2-wire) via RJ-45
Number of devices (max.)	32
Addressing	Via interface configuration software
Signal processing	
Measurement method	True RMS measurement (measured value acquisition with 8 kHz)
Measured variables (calculated)	Line-to-line voltage; Outputs; Energy sources; Power factors; Mains frequency; Harmonics analysis (up to 41st harmonic); Total Harmonic Distortion (THD)
Signal form	any periodic signals (considering the threshold frequencies)
Type of memory card	WAGO 758-879/000-3102 (microSD; 2 GB)
Limit frequency	15.9 kHz
Measurement error	
Transmission error (max.)	≤ 0.5 % for current and voltage (of the full scale value)
Power supply	
Power supply type	24 VDC
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 50 mA (+ I_{DO})
Safety and protection/Environmental requirements	
Rated Voltage	600 V
Overvoltage category	III
Pollution degree	2
Safe isolation	Input/supply and communication per EN 61010-1
Requirement (N input)	Neutral conductors that are part of the mains circuit are considered dangerous voltage.
IL_x input requirement	Coils/converters with basic insulation
Protection type	IP20
Test voltage (input/output/supply)	3.51 kVAC; 50 Hz; 1 min
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 95 % (non-condensing)

Power measurement module ▶ Input signal (voltage): 277 VAC (ULN); 480 VAC (ULL); 90 mVAC (WAGO Rogowski Coils RC xxx) ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC (SELV)

Connection data	
Connector	2 x RJ-45 (daisy chain configuration)
Connection object type 1	
Connection type	Voltage
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 804 Series
Strip length	10 … 11 mm / 0.39 … 0.43 inches
Solid/fine-stranded/AWG	0.25 … 2.5 mm² / 0.25 … 2.5 mm² / 24 … 14 AWG
Connection object type 2	
Connection type	Current/power supply/DO
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 805 Series
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	72 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3
Standards/specifications	EN 61010-1

Selection Guide: Current Transformers
The Right Solution for Every Application

Current Transformers 855 Series	Split-Core Current Transformers	**Plug-In Current Transformers with CAGE CLAMP® Connection Technology**
Application	Retrofit	New systems
Coil bobbin	Separable	Closed
Connection technology	Connection cable (color coded)	CAGE CLAMP®
Mounting	Round cable (insulated), copper current bar (insulated	Round cable, copper current bar, DIN-rail, mounting plate
Compatibility with other WAGO components	750-493; (750-493/000-001); 750-494; (750-494/000-001); 750-495; (750-495/000-001); 857-550; 2857-570/024-001; 2857-570/024-005	
Primary rated current	60 … 1000 A	50 … 2500 A
Secondary rated current	1 A / 5 A	1 A / 5 A
Accuracy class	0,5; 1 oder 3	1 oder 3
Surrounding air temperature	-10 … +55 °C	-5 … +50 °C
Standards	EN 61869-2	EN 61869-2
Approvals	–	c UL us
Connection examples		

* In the measurement range between 0.8 and 32 A and in combination with WAGO's 3-Phase Power Measurement Modules, accuracy class 0.5 per EN 61869-2 is achieved.

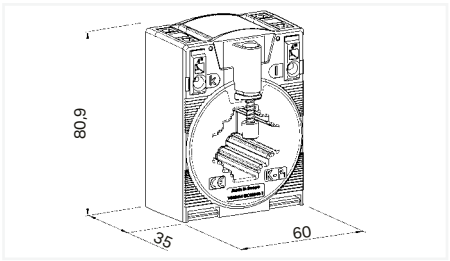
Plug-In Current Transformers with *picoMAX*® Pluggable Connectors		Rogowski Coils RC 70 / RC 125 / RC 175	Current and Voltage Taps
New systems		Retrofit	New systems
Closed		Bayonet connector, separable	Closed
picoMAX®		Connecting cable	Push-in CAGE CLAMP®
Round cable, copper current bar, mounting plate		Round cable, copper current bar	Jumper slot of the 285 series 2-Conductor Through Teremin Blocks 285-150; 285-195; 285-1185; 285-141; 285-181; 285-1161
750-493; 750-494; 750-495; 857-550; 2857-570/024-001		750-495/000-002; 857-552; 2857-570/024-000	750-493; 750-494; 750-495; 857-550; 2857-570/024-001
32 A	35 / 64 A	Up to 4000 A	150 … 350 A
320 mA	1 A	22.5 mV/kA	1 A
0.5*	1	0.5	0.5
-10 … +55 °C		-40 … +80 °C	-25 … +70 °C
EN 61869-2		IEC 61010-1 / EN 61869-2	EN 61869-2, EN 60947-7-3, IEC 60068-2-6
–	c UL us	UL-Zulassung	–

Plug-in current transformer ▶ CAGE CLAMP®

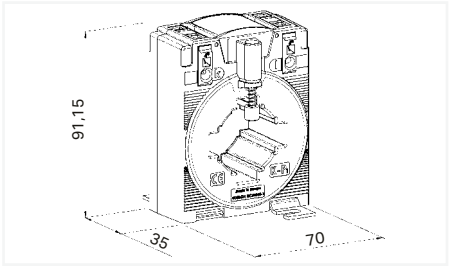
Short description:
WAGO's plug-in current transformers (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.
Features:
- Screwless CAGE CLAMP® connection technology
- Several mounting options available
- Vibration- and shock-resistant
- High mechanical retention forces
- High current-carrying capacity
- Continuous overload of 120 % the nominal primary current
- Low-voltage current transformer for operating voltages up to max. 1.2 kV
- For 690 V power networks
- UL recognized components

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	1.2 x I_N
Rated short-time thermal current I_{th}	60 x I_N / 1 s (max. 100 kA / 1 s)
Overcurrent limiting factor	FS5 / FS10 (type dependent; see type plate inscription)
Rated frequency	50 … 60 Hz
Safety and protection/Environmental requirements	
Test voltage	6 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	1.2 kV_{rms}AC
Operating altitude (max.)	1000 m
Ambient temperature (operation)	-5 … +50 °C
Ambient temperature (storage)	-25 … +70 °C
Connection object type 1	
Connection technology	CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Solid/fine-stranded/AWG	0.08 … 4 mm² / 0.08 … 4 mm² / 28 … 12 AWG
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2; UL: E356480

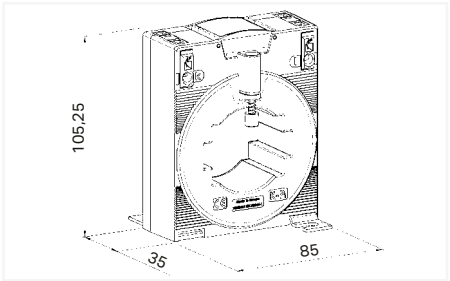
Plug-in current transformer ▶ CAGE CLAMP®



Feedthrough for measurement conductor: Ø 26 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
50 A	1 A	1.25 VA	3	855-301/050-103	1
50 A	5 A	1.25 VA	3	855-305/050-103	1
60 A	1 A	1.25 VA	1	855-301/060-101	1
60 A	5 A	1.25 VA	1	855-305/060-101	1
75 A	1 A	2.5 VA	1	855-301/075-201	1
75 A	5 A	2.5 VA	1	855-305/075-201	1
100 A	1 A	2.5 VA	1	855-301/100-201	1
100 A	5 A	2.5 VA	1	855-305/100-201	1
150 A	1 A	5 VA	1	855-301/150-501	1
150 A	5 A	5 VA	1	855-305/150-501	1
200 A	1 A	5 VA	1	855-301/200-501	1
200 A	5 A	5 VA	1	855-305/200-501	1
250 A	1 A	5 VA	1	855-301/250-501	1
250 A	5 A	5 VA	1	855-305/250-501	1
300 A	5 A	5 VA	1	855-305/300-501	1
400 A	1 A	10 VA	1	855-301/400-1001	1
400 A	5 A	10 VA	1	855-305/400-1001	1
600 A	1 A	10 VA	1	855-301/600-1001	1
600 A	5 A	10 VA	1	855-305/600-1001	1



Feedthrough for measurement conductor: Ø 32 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
250 A	1 A	5 VA	1	855-401/250-501	1
250 A	5 A	5 VA	1	855-405/250-501	1
400 A	1 A	5 VA	1	855-401/400-501	1
400 A	5 A	5 VA	1	855-405/400-501	1
600 A	1 A	5 VA	1	855-401/600-501	1
750 A	5 A	5 VA	1	855-405/750-501	1



Feedthrough for measurement conductor: Ø 44 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
400 A	1 A	10 VA	1	855-501/400-1001	1
400 A	5 A	10 VA	1	855-505/400-1001	1
600 A	1 A	10 VA	1	855-501/600-1001	1
600 A	5 A	10 VA	1	855-505/600-1001	1
800 A	1 A	10 VA	1	855-501/800-1001	1
800 A	5 A	10 VA	1	855-505/800-1001	1
1000 A	1 A	10 VA	1	855-501/1000-1001	1
1000 A	5 A	10 VA	1	855-505/1000-1001	1

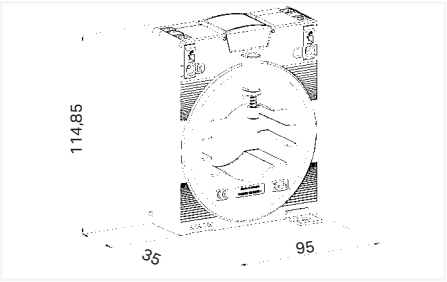
Accessories

Fast connection adapter

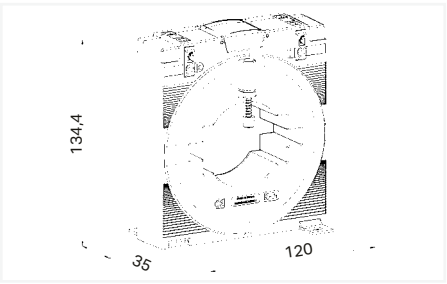
Item No.	PU
855-9910	1

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

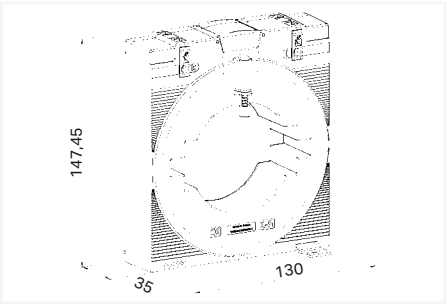
Plug-in current transformer ▶ CAGE CLAMP®



Feedthrough for measurement conductor: Ø 44 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
1500 A	1 A	5 VA	1	855-601/1500-501	1
1500 A	5 A	5 VA	1	855-605/1500-501	1



Feedthrough for measurement conductor: Ø 55 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
1000 A	1 A	10 VA	1	855-801/1000-1001	1
2000 A	1 A	10 VA	1	855-801/2000-1001	1
2000 A	5 A	10 VA	1	855-805/2000-1001	1



Feedthrough for measurement conductor: Ø 70 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
2500 A	1 A	10 VA	1	855-1001/2500-1001	1
2500 A	5 A	10 VA	1	855-1005/2500-1001	1

Accessories

Fast connection adapter

Item No.	PU
855-9910	1

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

Plug-in current transformer ▶ CAGE CLAMP® ▶ For billing purposes

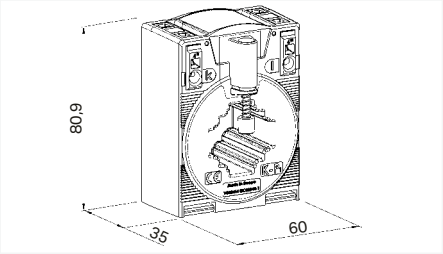
Similar to illustration

Short description:
WAGO's plug-in current transformers for billing measurement (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.
These plug-in current transformers comply with the conformity assessment procedure (module D) and can be used for billing purposes in Germany (MessEG).

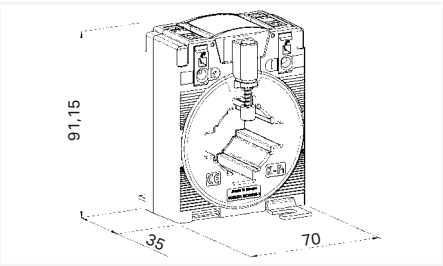
Features:
- Screwless CAGE CLAMP® connection technology
- Several mounting options available
- Vibration- and shock-resistant
- High mechanical retention forces
- High current-carrying capacity
- Continuous overload of 120 % the nominal primary current
- Low-voltage current transformer for operating voltages up to max. 1.2 kV
- For 690 V power networks
- Accessories: 879-3040; Energy Meter; with Push-in CAGE CLAMP® and lever; transformer connection (2PUCT)

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	AC 1.2 x I_N
Rated short-time thermal current I_{th}	60 x I_N / 1 s (max. 100 kA / 1 s)
Overcurrent limiting factor	FS5 / FS10 (type dependent; see type plate inscription)
Rated frequency	50 … 60 Hz
Output – current transformer	
Secondary rated current	5 A
Measurement error	
Accuracy class	0.5
Safety and protection/Environmental requirements	
Test voltage	6 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	1.2 kV_{rms}AC
Operating altitude (max.)	1000 m
Ambient temperature (operation)	-5 … +50 °C
Ambient temperature (storage)	-25 … +70 °C
Connection object type 1	
Connection technology	CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Solid/fine-stranded/AWG	0.08 … 4 mm² / 0.08 … 4 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Mounting type	Closed current transformer; Installation on mounting plate; Mounting on DIN-rail via DIN-rail adapter; Installation on round cable
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2

Plug-in current transformer ▶ CAGE CLAMP® ▶ For billing purposes



Feedthrough for measurement conductor: Ø 26 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
100 A	5 A	2.5 VA	0.5	855-305/100-209	1
150 A	5 A	2.5 VA	0.5	855-305/150-209	1
200 A	5 A	5 VA	0.5	855-305/200-509	1
250 A	5 A	5 VA	0.5	855-305/250-509	1
300 A	5 A	5 VA	0.5	855-305/300-509	1
400 A	5 A	5 VA	0.5	855-305/400-509	1
500 A	5 A	5 VA	0.5	855-305/500-509	1
600 A	5 A	5 VA	0.5	855-305/600-509	1
750 A	5 A	5 VA	0.5	855-305/750-509	1



Feedthrough for measurement conductor: Ø 32 mm					
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Item No.	PU
200 A	5 A	2.5 VA	0.5	855-405/200-209	1
250 A	5 A	2.5 VA	0.5	855-405/250-209	1
300 A	5 A	5 VA	0.5	855-405/300-509	1
400 A	5 A	5 VA	0.5	855-405/400-509	1
500 A	5 A	5 VA	0.5	855-405/500-509	1
600 A	5 A	5 VA	0.5	855-405/600-509	1
750 A	5 A	5 VA	0.5	855-405/750-509	1

4

Accessories

DIN-rail adapter

Item No.	PU
855-9900	1

Fast connection adapter

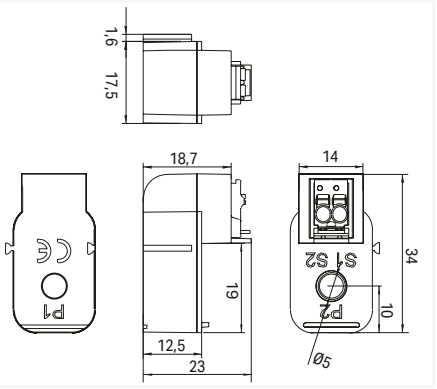
Item No.	PU
855-9910	1

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

Plug-in current transformer ▶ Primary rated current: 32 A ▶ Secondary rated current: 0.32 A ▶ Rated power S_r: 0.01 VA ▶ Accuracy class: 0.5

	Item No.	PU
	855-1700/032-000	15

Dimensions in mm



Short description:
WAGO's *picoMAX*® plug-in current transformer with low-power output is specifically tailored to WAGO's 750 Series 3-Phase Power Measurement Modules.
Features:
- All-new, low-power output design with *picoMAX*®
- Assembly via side latches
- Can be mounted directly on an ECB

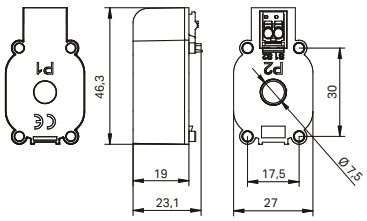
Note
The 855-1700/032-000 Plug-In Current Transformer is exclusive to the WAGO I/O System and shall only be used with WAGO's 750 Series 3-Phase Power Measurement Modules.
Recommended conductor cross-section and length: 1.5 mm² (14 AWG) and maximum 3.0 m at the output
Measurement range: 0.8 to 32 A in combination with the 3-Phase Power Measurement Modules (750-493/-494/-495)
Testing adheres to EN 61869-2 with a conversion ratio of 16 A/0.16 A (accuracy class: 0.5) and an extended primary current of 200%.

Input	
Measured variable	Current
Input – current transformer	
Rated short-time thermal current I_{th}	2 kA / 0.1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Primary rated current	32 A
Output – current transformer	
Secondary rated current	0.32 A
Rated power S_r	0.01 VA
Measurement error	
Accuracy class	0.5
Safety and protection/Environmental requirements	
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-10 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 5.0 mm
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 3.5, 2091-1122
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	17 mm x 34 mm x 23 mm
Mounting type	Closed current transformer; Installation on round cable
Housing material	PA 66
Standards and specifications	
Standards/specifications	EN 61869-2; EN 61010-1

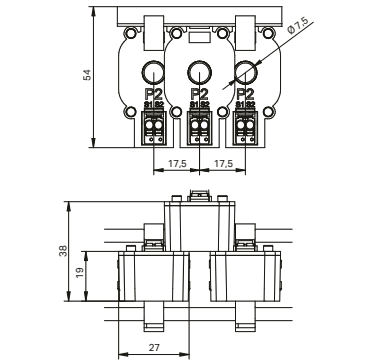
Plug-in current transformer ▶ Primary rated current: 35 A ▶ Secondary rated current: 1 A ▶ Rated power S_r: 0.2 VA ▶ Accuracy class: 1

	Item No.	PU
	855-2701/035-001	15

Dimensions in mm



Dimensions in mm



Short description:
WAGO's plug-in current transformers (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.

Features:
- All-new design with *picoMAX*® connection technology
- Ready for space-restricted applications
- Simple assembly permits 17.5 mm phase spacing, allowing perfect adjustment to any circuit breaker.
- Easily mount on DIN-rail or panels via DIN-rail adapter (855-9927)
- Convert current from 64 A or 35 A to 1 A
- Accuracy class: 1

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N / 1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Primary rated current	35 A
Output – current transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Measurement error	
Accuracy class	1
Safety and protection/Environmental requirements	
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-10 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 7.5 mm
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 3.5, 2091-1122
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	27 mm x 46 mm x 23 mm
Mounting type	Closed current transformer; Mounting on DIN-rail via DIN-rail adapter; Installation on round cable
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2; UL

Accessories

DIN-rail adapter

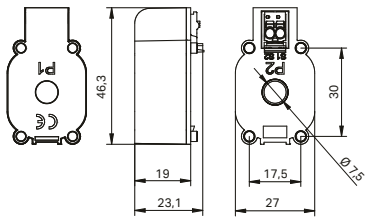
	Item No.	PU
	855-9927	1

4

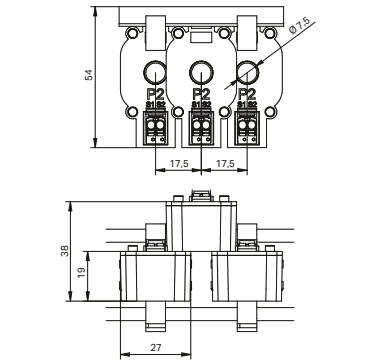
Plug-in current transformer ▶ Primary rated current: 64 A ▶ Secondary rated current: 1 A ▶ Rated power S_r: 0.2 VA ▶ Accuracy class: 1

	Item No.	PU
	855-2701/064-001	15

Dimensions in mm



Dimensions in mm



Short description:
WAGO's plug-in current transformers (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.

Features:
- All-new design with *picoMAX*® connection technology
- Ready for space-restricted applications
- Simple assembly permits 17.5 mm phase spacing, allowing perfect adjustment to any circuit breaker.
- Easily mount on DIN-rail or panels via DIN-rail adapter (855-9927)
- Convert current from 64 A or 35 A to 1 A
- Accuracy class: 1

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N / 1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Primary rated current	64 A
Output – current transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Measurement error	
Accuracy class	1
Safety and protection/Environmental requirements	
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-10 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 7.5 mm
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 3.5, 2091-1122
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	27 mm x 46 mm x 23 mm
Mounting type	Closed current transformer; Mounting on DIN-rail via DIN-rail adapter; Installation on round cable
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2; UL

Accessories

DIN-rail adapter

	Item No.	PU
	855-9927	1

Split-core current transformer

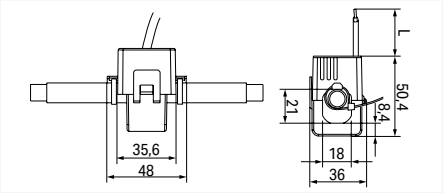
Similar to illustration

Short description:
WAGO's compact split-core current transformers are ideal for retrofitting existing systems. They are perfect for applications in which the current path must not be disrupted. The transformer's accuracy permits extremely precise current measurements. The split-core current transformers are capable of supplying the specified rated power at the end of the secondary cable. All transformers are supplied with color-coded cables. Two UV-resistant cable ties are also included for secure and easy mounting.

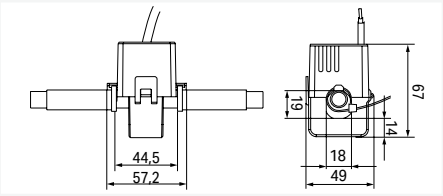
Features:
- Current ratios from 60 A (primary side) and 1 A (secondary side)
- No primary cable interruption
- Ideal for use in very confined spaces
- Rapid mounting
- For use around insulated conductors (18 mm Ø)
- Compact and hinged
- Color-coded connection cable (3 m)

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N / 1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Safety and protection/Environmental requirements	
Protection type	IP20
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Physical data/Mechanical data/Material Data	
Mounting type	Split-core current transformer (suspended)
Standards and specifications	
Standards/specifications	EN 61869-1; EN 61869-2

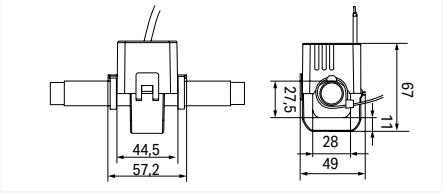
Split-core current transformer



Feedthrough for measurement conductor: Ø 18 mm						
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
60 A	1 A	0.2 VA	3	3 m	855-3001/060-003	1
75 A	1 A	0.2 VA	3	3 m	855-3001/075-003	1
100 A	1 A	0.2 VA	3	3 m	855-3001/100-003	1
125 A	1 A	0.2 VA	3	3 m	855-3001/125-003	1
150 A	1 A	0.2 VA	3	3 m	855-3001/150-003	1
200 A	1 A	0.2 VA	1	3 m	855-3001/200-001	1
250 A	1 A	0.2 VA	1	3 m	855-3001/250-001	1



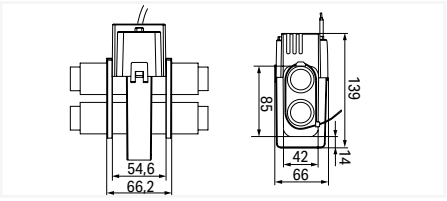
Feedthrough for measurement conductor: Ø 18 mm						
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
100 A	1 A	0.2 VA	1	3 m	855-4001/100-001	1
125 A	1 A	0.2 VA	1	3 m	855-4001/125-001	1
150 A	1 A	0.2 VA	1	3 m	855-4001/150-001	1
150 A	5 A	1 VA	1	0.5 m	855-4005/150-101	1
200 A	1 A	0.2 VA	0.5	3 m	855-4001/200-001	1
200 A	5 A	1 VA	1	0.5 m	855-4005/200-101	1
250 A	1 A	0.2 VA	0.5	3 m	855-4001/250-000	1
250 A	5 A	1 VA	0.5	0.5 m	855-4005/250-100	1



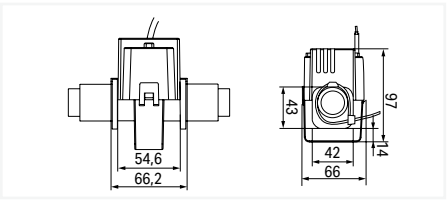
Feedthrough for measurement conductor: Ø 28 mm						
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
200 A	1 A	0.2 VA	1	3 m	855-4101/200-001	1
250 A	1 A	0.2 VA	1	3 m	855-4101/250-001	1
250 A	5 A	1 VA	1	0.5 m	855-4105/250-101	1
300 A	1 A	0.2 VA	1	3 m	855-4101/300-001	1
300 A	5 A	1 VA	1	0.5 m	855-4105/300-101	1
400 A	1 A	0.2 VA	1	3 m	855-4101/400-001	1
400 A	5 A	1 VA	1	0.5 m	855-4105/400-101	1
500 A	1 A	0.2 VA	0.5	3 m	855-4101/500-000	1
500 A	5 A	1 VA	1	0.5 m	855-4105/500-101	1

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

Split-core current transformer



Feedthrough for measurement conductor: 2 x Ø 42 mm						
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
250 A	1 A	0.5 VA	1	5 m	855-5101/250-001	1
300 A	1 A	0.5 VA	1	5 m	855-5101/300-001	1
300 A	5 A	0.5 VA	1	3 m	855-5105/300-001	1
400 A	1 A	0.5 VA	0.5	5 m	855-5101/400-000	1
400 A	5 A	0.5 VA	1	3 m	855-5105/400-001	1
500 A	1 A	0.5 VA	0.5	5 m	855-5101/500-000	1
500 A	5 A	0.5 VA	1	3 m	855-5105/500-001	1
600 A	1 A	0.5 VA	0.5	5 m	855-5101/600-000	1
600 A	5 A	0.5 VA	0.5	3 m	855-5105/600-000	1
750 A	1 A	0.5 VA	0.5	5 m	855-5101/750-000	1
750 A	5 A	0.5 VA	0.5	3 m	855-5105/750-000	1
800 A	1 A	0.5 VA	0.5	5 m	855-5101/800-000	1
800 A	5 A	0.5 VA	0.5	3 m	855-5105/800-000	1
1000 A	1 A	0.5 VA	0.5	5 m	855-5101/1000-000	1
1000 A	5 A	0.5 VA	0.5	3 m	855-5105/1000-000	1



Feedthrough for measurement conductor: Ø 42 mm						
Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
250 A	1 A	0.5 VA	1	5 m	855-5001/250-001	1
300 A	1 A	0.5 VA	1	5 m	855-5001/300-001	1
300 A	5 A	0.5 VA	1	3 m	855-5005/300-001	1
400 A	1 A	0.5 VA	0.5	5 m	855-5001/400-000	1
400 A	5 A	0.5 VA	1	3 m	855-5005/400-001	1
500 A	1 A	0.5 VA	0.5	5 m	855-5001/500-000	1
500 A	5 A	0.5 VA	1	3 m	855-5005/500-001	1
600 A	1 A	0.5 VA	0.5	5 m	855-5001/600-000	1
600 A	5 A	0.5 VA	0.5	3 m	855-5005/600-000	1
750 A	1 A	0.5 VA	0.5	5 m	855-5001/750-000	1
750 A	5 A	0.5 VA	0.5	3 m	855-5005/750-000	1
800 A	1 A	0.5 VA	0.5	5 m	855-5001/800-000	1
800 A	5 A	0.5 VA	0.5	3 m	855-5005/800-000	1
1000 A	1 A	0.5 VA	0.5	5 m	855-5001/1000-000	1
1000 A	5 A	0.5 VA	0.5	3 m	855-5005/1000-000	1

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

Split-core current transformer ▶ Including shorting link ▶ Feedthrough for measurement conductor: Ø 18 mm

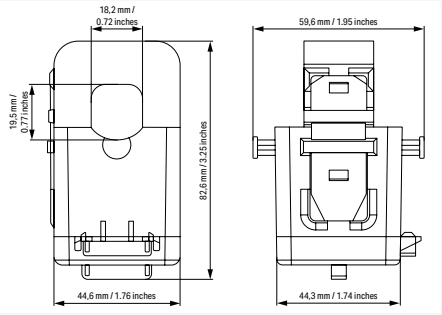
Similar to illustration

Short description:
WAGO's compact split-core current transformers are ideal for retrofitting existing systems. They are perfect for applications in which the current path must not be disrupted. The transformer's accuracy permits exact current measurements. The split-core current transformers can supply the specified rated power at the secondary connection. Two UV-resistant cable ties are also included for secure and easy mounting. Lever-operated CAGE CLAMP® connectors provide a secondary connection on the bottom. For safe installation, a shorting link is supplied, which can be placed in the parking position directly on the current transformer when not in use.

Features:
- Transmission ratios of 60 A on primary side and 333 mV on secondary side
- No primary cable interruption
- Ideal for use in very confined spaces
- Rapid mounting
- For use around insulated cables (up to 18 mm Ø)
- Compact and hinged
- Connectors with levers for all conductor types up to max. 4 mm²
- Including shorting link

Input	
Measured variable	Current
Input – current transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N / 1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Safety and protection/Environmental requirements	
Protection type	IP20
Test voltage	6 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-10 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 18 mm
Connection object type 2	
Connection type	Secondary
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 221-2411
Actuation type	Lever
Strip length	11 mm / 0.43 inches
Solid/fine-stranded/AWG	0.2 … 4 mm² / 0.2 … 4 mm² / 20 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	59.6 mm x 82.6 mm x 44.6 mm
Mounting type	Split-core current transformer (suspended)
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2

Split-core current transformer ▶ Including shorting link ▶ Feedthrough for measurement conductor: Ø 18 mm



Primary rated current	Secondary rated current	Rated power S_r	Accuracy class	Cable length	Item No.	PU
60 A	-	-	3	-	855-4209/060-003	1
60 A	-	-	1	-	855-4209/100-001	1
60 A	-	-	1	-	855-4209/150-001	1
60 A	-	-	1	-	855-4209/200-001	1
60 A	1 A	1.4 VA	3	-	855-4201/060-103	1
75 A	1 A	1.4 VA	3	-	855-4201/075-103	1
100 A	1 A	0.3 VA	1	-	855-4201/100-001	1
100 A	1 A	1.6 VA	3	-	855-4201/100-103	1
125 A	1 A	0.5 VA	1	-	855-4201/125-001	1
125 A	1 A	1.6 VA	3	-	855-4201/125-103	1
150 A	1 A	0.7 VA	1	-	855-4201/150-001	1
150 A	1 A	2.1 VA	3	-	855-4201/150-203	1
150 A	5 A	0.7 VA	1	-	855-4205/150-001	1
200 A	1 A	1.4 VA	1	-	855-4201/200-101	1
200 A	1 A	2.6 VA	3	-	855-4201/200-203	1
200 A	5 A	1.1 VA	1	-	855-4205/200-001	1
250 A	1 A	2.6 VA	1	-	855-4201/250-201	1
250 A	1 A	3.8 VA	3	-	855-4201/250-303	1
250 A	5 A	1.1 VA	1	-	855-4205/250-001	1

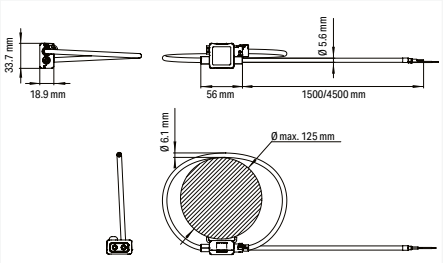
PU = packaging unit; SPU = subpackaging unit

Rogowski coil

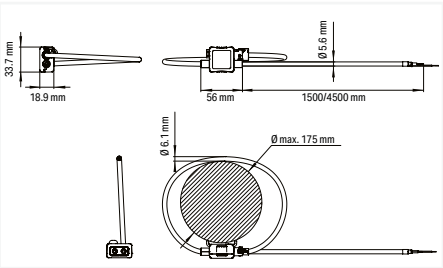
Short description:
WAGO's Rogowski coils are used to measure AC currents and are particularly well suited for retrofitting in existing systems. The split coil bobbin allows for subsequent installation around the primary conductor – be it current bars or round conductors. These Rogowski coils can be connected to WAGO's 857-552, 750-495/000-002 and 2857-570/024-000 modules. A sealable bayonet catch and mounting brackets for cable ties make for easy installation.

Input	
Measurement range	10 … 10,000 A (up to 4000 A in combination with recommended WAGO products)
Measured variable	Current
Input – current transformer	
Rated short-time thermal current I_{th}	300 kA at 50 Hz
Rated frequency	50 … 60 Hz
Primary rated current	1000 A
Output – analog	
Sensitivity	22.5 mV/kA at 50 Hz
Output signal (max.)	30 V
Measurement error	
Accuracy class	0.5
Translation errors (all positions)	0.75 %
Translation errors (note)	Assuming that a primary conductor with a minimum diameter of 15 mm is used that is routed perpendicular to and in contact with the coil.
Safety and protection/Environmental requirements	
Rated Voltage	1000 VAC_{rms} (Cat. III); 600 VAC_{rms} (Cat. IV)
Impulse withstand voltage (1.2/50 µs)	12.8 kV
Protection type	IP57
Voltage for isolation test	7.4 kVAC; 50 Hz; 1 min
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C
Relative humidity	≤ 90 % (without condensation)
Physical data/Mechanical data/Material Data	
Mounting type	Split-core current transformer (suspended)
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61010-2-32; EN 61869-1; EN 61869-2; EN 61869-6; EN 61869-10; UL 61010-1

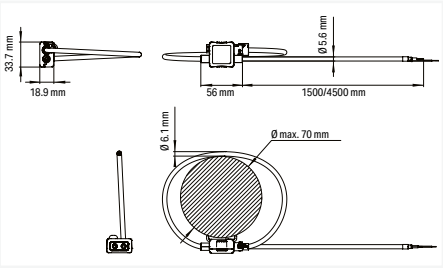
Rogowski coil



Feedthrough for measurement conductor: Ø 125 mm			
Mutual Inductance M	Cable length	Item No.	PU
72.14 nH	1.5 m	855-9150/2000-1251	1
72.14 nH	4.5 m	855-9450/2000-1251	1



Feedthrough for measurement conductor: Ø 175 mm			
Mutual Inductance M	Cable length	Item No.	PU
72.31 nH	1.5 m	855-9150/2000-1751	1
72.31 nH	4.5 m	855-9450/2000-1751	1

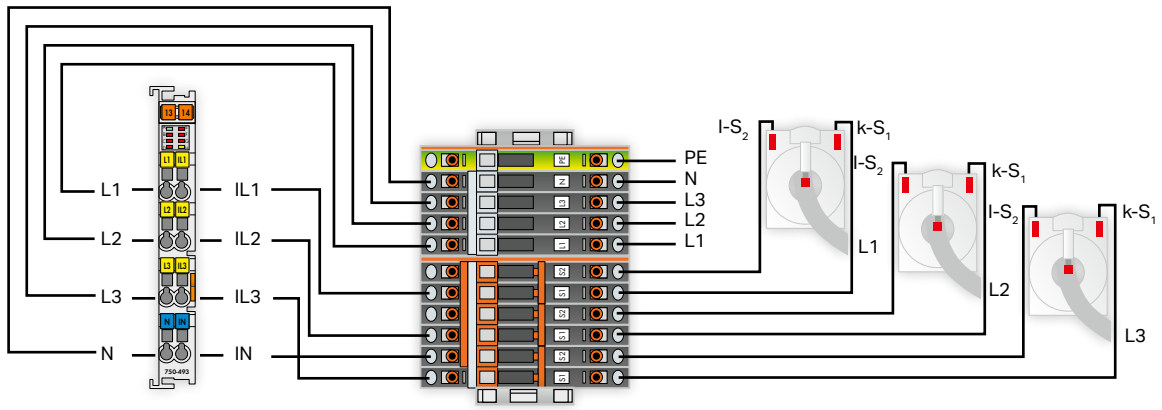


Feedthrough for measurement conductor: Ø 70 mm			
Mutual Inductance M	Cable length	Item No.	PU
71.98 nH	1.5 m	855-9150/2000-701	1
71.98 nH	4.5 m	855-9450/2000-701	1

4

PU = packaging unit; SPU = subpackaging unit; Dimensions in mm

Terminal Block Assemblies for Current and Voltage Transformers
For Fast and Easy Connections

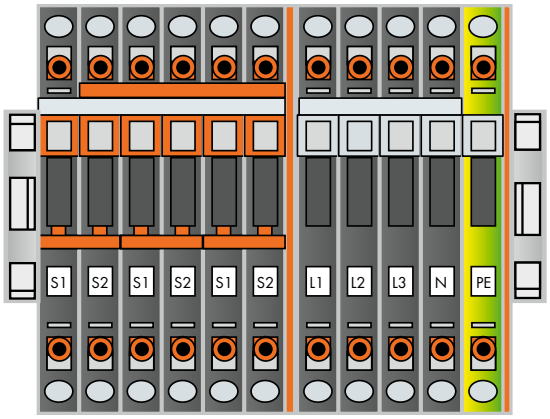


3-Phase Power Measurement Module, 750 Series

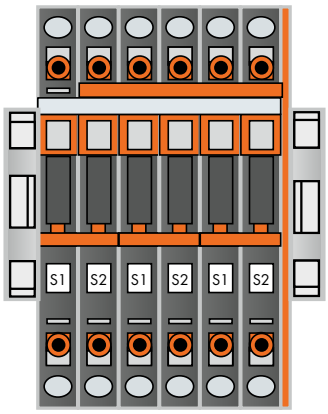
Terminal Block Assembly (2007 Series) for Current Transformers and Power Taps

Current Transformers, 855 Series

Pre-assembled terminal block assembly for easily connecting and short-circuiting current transformers, suitable for three-phase power measurement modules (750-493 and 750-494)

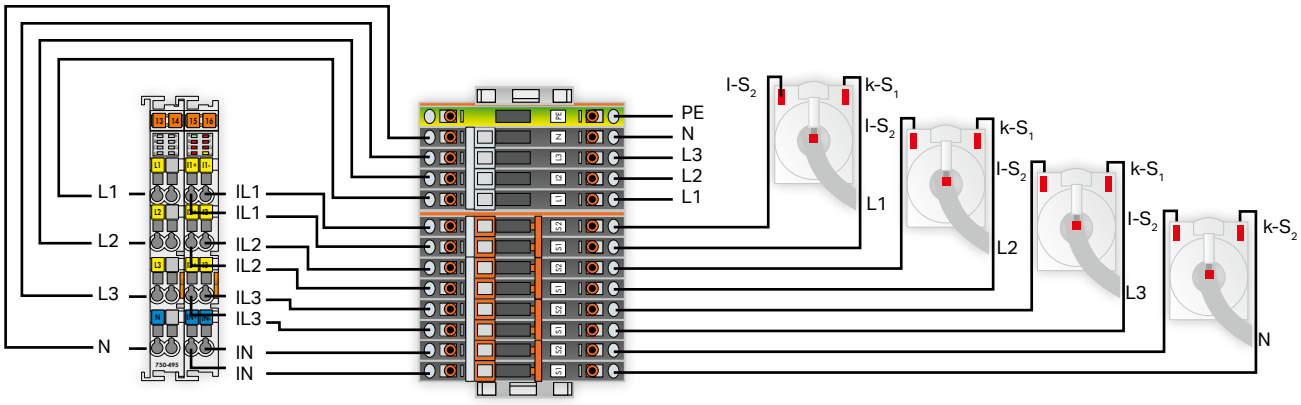


Compact terminal block for current transformer circuit, 2007-8873
Connection option for current and voltage, including 'Y' point jumper



Compact terminal block for current transformer circuit, 2007-8875
Connection option for current and voltage, including 'Y' point jumper

ADVANTAGES:
- 'Y' point jumper
- Easy and clear wiring
- Short-circuiting of current transformers
- Test sockets for control measurements
- Visible current and voltage path separation

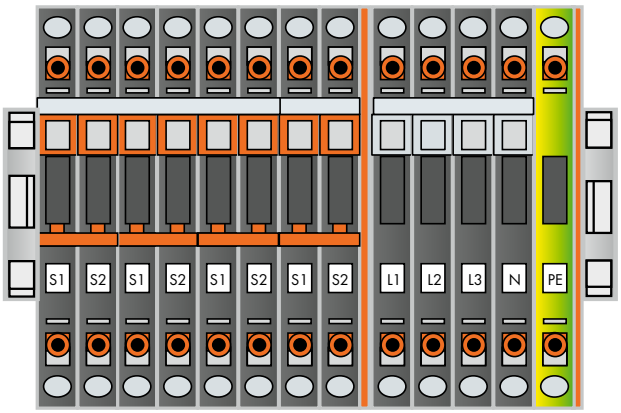


3-Phase Power Measurement Module, 750 Series

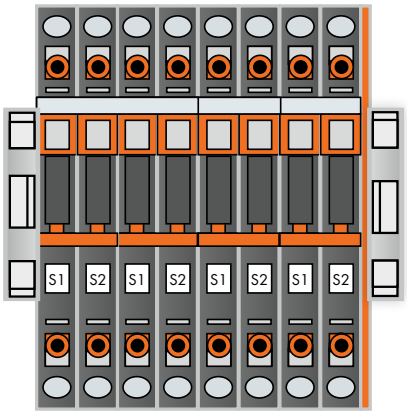
Terminal Block Assembly (2007 Series) for Current Transformers and Power Taps

Current Transformers, 855 Series

Pre-assembled terminal block assembly for easily connecting and short circuiting current transformers, suitable for three-phase power measurement modules (750-495)



Compact terminal block for current transformer circuit, 2007-8874
Connection option for current and voltage



Compact terminal block for current transformer circuit, 2007-8877
Connection option for current

Current sensor with bus connection ▶ Input signal (current): DC 0 … 140 A ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC

	Item No.	PU
	789-621	1

Short description:
WAGO's intelligent current sensor monitors solar plants or inverters for DC measurements within a large current measurement range. The sensor is mounted on DIN-35 rail.

Input	
Input signal type	Current
Resolution [bit]	15 bits
Measured variable	Current
Input signal (current)	0 … 140 ADC
Output – Modbus®	
Number of devices (max.)	32
Connector	RJ-45
Bus length (max.)	1200 m
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Communication	
Communications	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of devices (max.)	32
Parity	Even
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Bus length (max.)	≤ 1200 m
Transmission rate	19.2 kBd
Measurement error	
Transmission error (typ.)	≤ 0.5 % of upper-range value (0 … 80 A; at room temperature); ≤ 1 % of upper-range value (80 … 140 A; at room temperature)
Temperature coefficient	≤ 0.05 %/K (-20 … 60 °C); ≤ 0.1 %/K (60 … 70 °C)
Power supply	
Nominal supply voltage U_S	24 VDC
Current consumption at nominal supply voltage	≤ 8 mA
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-20 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Connection data	
Feedthrough for measurement conductor	Ø 15 mm
Connector	RJ-45
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	35 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier

	Item No.	PU (SPU)
	289-965	5 (1)

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier; with shield connection

	Item No.	PU (SPU)
	289-966	5 (1)

ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

	Item No.	PU
	750-975	1

Current sensor with bus connection ▶ Input signal (current): DC 0 … 80 A ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC

	Item No.	PU
	789-620	1

Short description:
WAGO's intelligent current sensor monitors solar plants or inverters for DC measurements within a large current measurement range. The sensor is mounted on DIN-35 rail.

Input	
Input signal type	Current
Resolution [bit]	15 bits
Measured variable	Current
Input signal (current)	0 … 80 ADC
Output – Modbus®	
Number of devices (max.)	32
Connector	RJ-45
Bus length (max.)	1200 m
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Communication	
Communications	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of devices (max.)	32
Parity	Even
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Bus length (max.)	≤ 1200 m
Transmission rate	19.2 kBd
Measurement error	
Transmission error (typ.)	≤ 0.5 % of upper-range value (at room temperature)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Nominal supply voltage U_S	24 VDC
Current consumption at nominal supply voltage	≤ 8 mA
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-20 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Connection data	
Feedthrough for measurement conductor	15 mm
Connector	RJ-45
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	35 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier

	Item No.	PU (SPU)
	289-965	5 (1)

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier; with shield connection

	Item No.	PU (SPU)
	289-966	5 (1)

ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

	Item No.	PU
	750-975	1

Current sensor with bus connection ▶ Input signal (current): AC 0 … 50 A ▶ Modbus RTU ▶ Nominal supply voltage U_S: 24 VDC

	Item No.	PU
	789-622	1

Short description:
WAGO's intelligent current sensor monitors AC currents and is mounted on DIN-35 rail.

Input	
Input signal type	Current
Resolution [bit]	14 bits
Measured variable	Current
Input signal (current)	0 … 50 AAC
Output – Modbus®	
Number of devices (max.)	32
Connector	RJ-45
Bus length (max.)	1200 m
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Communication	
Communications	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of devices (max.)	32
Parity	Even
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Bus length (max.)	≤ 1200 m
Transmission rate	19.2 kBd
Measurement error	
Transmission error (typ.)	1 % (typ.); 3 % (max.) of upper-range value (at room temperature)
Temperature coefficient	≤ 0.01 %/K
Power supply	
Nominal supply voltage U_S	24 VDC
Current consumption at nominal supply voltage	≤ 8 mA
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-20 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Connection data	
Feedthrough for measurement conductor	Ø 15 mm
Connector	RJ-45
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	35 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier

	Item No.	PU (SPU)
	289-965	5 (1)

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier; with shield connection

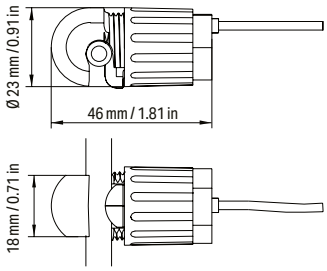
	Item No.	PU (SPU)
	289-966	5 (1)

ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

	Item No.	PU
	750-975	1

Power tap ▶ Mounting on insulated round cable ▶ Feedthrough for measurement conductor: 5 … 7 mm Ø

Item No.	PU
855-8004	10

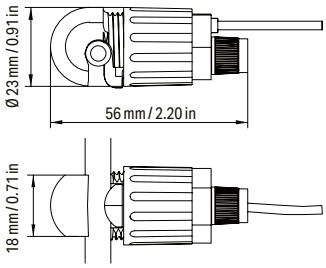


Short description:
WAGO's Power Taps (855 Series) easily and safely tap the measurement voltage.
This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.
Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- Cable length: 3 m

Input	
Measured variable	Voltage
Output – voltage tap	
Continuous current (max.)	2 A
Fuse (voltage path)	-
Rated Voltage	400 VAC
Voltage drop	≤ 0.5 VAC
Safety and protection/Environmental requirements	
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-5 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	5 … 7 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Connection object type 1	
Connection technology	IDC connection
Solid/fine-stranded/AWG	10 … 16 mm² / 10 … 16 mm² / 8 … 6 AWG
Physical data/Mechanical data/Material Data	
Cable length	3 m
Width x Height x Depth	23 mm x 50 mm x 23 mm
Mounting type	Insulation displacement connection
Mounting type	Mounting on insulated round cable
Torque range	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Power tap ▶ Mounting on insulated round cable ▶ Feedthrough for measurement conductor: 5 … 7 mm Ø

	Item No.	PU
	855-8003	10



Short description:
WAGO's Power Taps (855 Series) easily and safely tap the measurement voltage.
This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

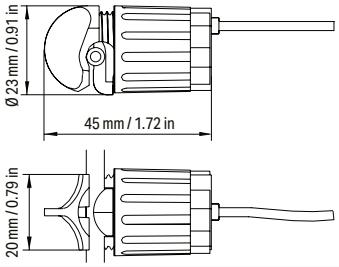
Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- Cable length: 3 m

Note
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage
Output – voltage tap	
Continuous current (max.)	2 A
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Voltage drop	≤ 0.5 VAC
Safety and protection/Environmental requirements	
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-5 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	5 … 7 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Connection object type 1	
Connection technology	IDC connection
Solid/fine-stranded/AWG	10 … 16 mm² / 10 … 16 mm² / 8 … 6 AWG
Physical data/Mechanical data/Material Data	
Cable length	3 m
Width x Height x Depth	23 mm x 59 mm x 23 mm
Mounting type	Insulation displacement connection
Mounting type	Mounting on insulated round cable
Torque range	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Power tap ▶ Mounting on insulated round cable ▶ Feedthrough for measurement conductor: Ø 3 … 5 mm

Item No.	PU
855-8002	10

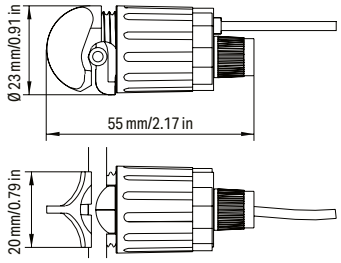


Short description:
WAGO's Power Taps (855 Series) easily and safely tap the measurement voltage.
This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.
Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- Cable length: 3 m

Input	
Measured variable	Voltage
Output – voltage tap	
Continuous current (max.)	2 A
Fuse (voltage path)	-
Rated Voltage	400 VAC
Voltage drop	≤ 0.5 VAC
Safety and protection/Environmental requirements	
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-5 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 3 … 5 mm
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Connection object type 1	
Connection technology	IDC connection
Solid/fine-stranded/AWG	2.5 … 6 mm² / 2.5 … 6 mm² / 14 … 10 AWG
Physical data/Mechanical data/Material Data	
Cable length	3 m
Width x Height x Depth	23 mm x 50 mm x 23 mm
Mounting type	Insulation displacement connection
Mounting type	Mounting on insulated round cable
Torque range	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Power tap ▶ Mounting on insulated round cable ▶ Feedthrough for measurement conductor: Ø 3 … 5 mm

	Item No.	PU
	855-8001	10



Short description:
WAGO's Power Taps (855 Series) easily and safely tap the measurement voltage.
This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- Cable length: 3 m

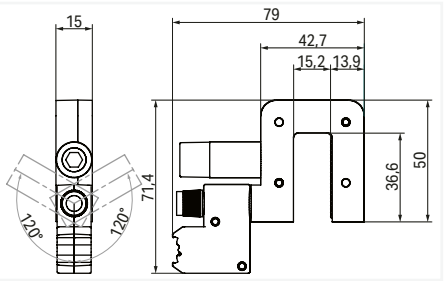
Note
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage
Output – voltage tap	
Continuous current (max.)	2 A
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Voltage drop	≤ 0.5 VAC
Safety and protection/Environmental requirements	
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Operating altitude (max.)	2000 m
Ambient temperature (operation)	-5 … +55 °C
Ambient temperature (storage)	-20 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø 3 … 5 mm
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Connection object type 1	
Connection technology	IDC connection
Solid/fine-stranded/AWG	2.5 … 6 mm² / 2.5 … 6 mm² / 14 … 10 AWG
Physical data/Mechanical data/Material Data	
Cable length	3 m
Width x Height x Depth	23 mm x 59 mm x 23 mm
Mounting type	Insulation displacement connection
Mounting type	Mounting on insulated round cable
Torque range	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Power tap ▸ Installation on busbar

	Item No.	PU
	855-8015	1

Dimensions in mm



Short description:
WAGO's Voltage Taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.
The voltage taps can be mounted directly on the busbar. Clamp mount via Allen screw is performed using an insulated Allen wrench and provides an excellent contact between the busbar and the fuse. This ensures high operational safety and short-circuit protection.
The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates (±120°). This creates additional added value by directly guiding subsequent wiring into the cable channel.
In addition, the voltage taps can be labeled with two different marking options.

Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO push-in termination technology
- WAGO labeling options (WMB markers or marking strips)

Note
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Safety and protection/Environmental requirements	
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Busbar thickness (min.)	4 mm
Busbar thickness (max.)	15 mm
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	79 mm x 15 mm x 72 mm
Mounting type	Clamp mount
Mounting type	Installation on busbar
Standards and specifications	
Standards/specifications	IEC 60947-7-3

Accessories

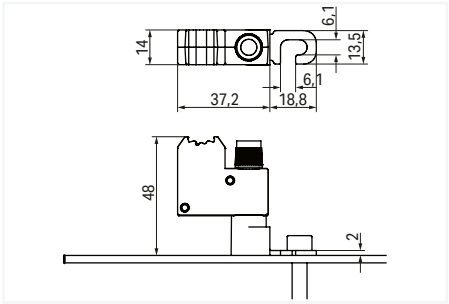
Operating tool;

	Item No.	PU
	855-8000	1

Power tap ▶ Installation on busbar

	Item No.	PU
	855-8006	1

Dimensions in mm



Short description:
WAGO's Voltage Taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.
The voltage taps can be mounted directly on the busbar. Mounting is performed via M6 screw.
The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates. This creates additional added value by directly guiding subsequent wiring into the cable channel.
In addition, the voltage taps can be labeled with two different marking options.

Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO push-in termination technology
- WAGO labeling options (WMB markers or marking strips)

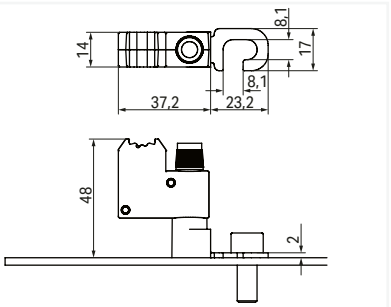
Note
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Safety and protection/Environmental requirements	
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (without condensation)
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	57 mm x 14 mm x 48 mm
Mounting type	M6 mount
Mounting type	Installation on busbar
Standards and specifications	
Standards/specifications	IEC 60947-7-3

Power tap ▶ Installation on busbar

	Item No.	PU
	855-8008	1

Dimensions in mm



Short description:
WAGO's Voltage Taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.
The voltage taps can be mounted directly on the busbar. Mounting is performed via M8 screw.
The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates. This creates additional added value by directly guiding subsequent wiring into the cable channel.
In addition, the voltage taps can be labeled with two different marking options.

Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO push-in termination technology
- WAGO labeling options (WMB markers or marking strips)

Note
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Safety and protection/Environmental requirements	
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 85 % (without condensation)
Connection object type 1	
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	61 mm x 14 mm x 48 mm
Mounting type	M8 mount
Mounting type	Installation on busbar
Standards and specifications	
Standards/specifications	IEC 60947-7-3

Current and voltage tap ▶ Primary rated current: 150 A ▶ Secondary rated current: 1 A ▶ Rated power S_r: 0.2 VA ▶ Accuracy class: 0.5

	Item No.	PU
	855-501/150-000	1

Short description:
WAGO's Current and Voltage Tap for 50 mm² (0/1 AWG) high-current through terminal blocks provides the ideal basis for successful energy management,
because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, this solution can be quickly and easily mounted into the jumper slot of WAGO's 50 mm² (1/0 AWG) high-current through terminal block.
An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 150 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).
The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 4-pole configuration (2 x S1 and 2 x S2) provides the following advantages:
- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer
The voltage is connected using a redundant terminal block. Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 50 mm² (1/0 AWG) high-current through terminal block
- Integrated current transformer (150 A/1 A)
- Accuracy class: 0.5
- Fuse-protected voltage path

Note
Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-150; 285-154)
Suitable for 2-conductor through terminal blocks with mounting flanges (285-141; 285-144)
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage; Current
Input – current transformer	
Rated continuous thermal current I_{cth}	150 A
Rated short-time thermal current I_{th}	9 kA / 1 s
Rated surge current I_{dyn}	22.5 kA
Rated frequency	50 … 60 Hz
Primary rated current	150 A
Output – current transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Measurement error	
Accuracy class	0.5
Safety and protection/Environmental requirements	
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø ≤ 12 mm
Connection object type 1	
Connection type	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 250 Series
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Connection object type 2	
Connection type	Voltage output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	20 mm x 68 mm x 57 mm
Mounting type	via 2-conductor high-current through terminal block's jumper slot
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

Current and voltage tap ▶ Primary rated current: 250 A ▶ Secondary rated current: 1 A ▶ Rated power S_r: 0.2 VA ▶ Accuracy class: 0.5

	Item No.	PU
	855-951/250-000	1

Short description:
WAGO's Current and Voltage Tap for 95 mm² (4/0 AWG) high-current through terminal blocks provides the ideal basis for successful energy management,
because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, the current and voltage tap can be quickly and easily mounted into the jumper slot of WAGO's 95 mm² (4/0 AWG) high-current through terminal block.
An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 250 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).
The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 5-pole configuration (2 x S1 and 3 x S2) provides the following advantages:

- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer
The voltage is connected using a redundant terminal block. Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 95 mm² (4/0 AWG) high-current through terminal block
- Integrated 250 A/1 A current transformer
- Accuracy class: 0.5
- Fuse-protected voltage path

Note
Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-195; 285-194)
Suitable for 2-conductor through terminal blocks with mounting flanges (285-181; 285-184)
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage; Current
Input – current transformer	
Rated continuous thermal current I_{cth}	250 A
Rated short-time thermal current I_{th}	15 kA / 1 s
Rated surge current I_{dyn}	37.5 kA
Rated frequency	50 … 60 Hz
Primary rated current	250 A
Output – current transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Measurement error	
Accuracy class	0.5
Safety and protection/Environmental requirements	
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø ≤ 16 mm
Connection object type 1	
Connection type	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 250 Series
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Connection object type 2	
Connection type	Voltage output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	25 mm x 73 mm x 58 mm
Mounting type	via 2-conductor high-current through terminal block's jumper slot
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

Current and voltage tap ▶ Primary rated current: 350 A ▶ Secondary rated current: 1 A ▶ Rated power S_r: 0.2 VA ▶ Accuracy class: 0.5

	Item No.	PU
	855-1851/350-000	1

Short description:
WAGO's Current and Voltage Tap for 185 mm² (350 kcmil) high-current through terminal blocks provides the ideal basis for successful energy management,
because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, the current and voltage tap can be quickly and easily mounted into the jumper slot of WAGO's 185 mm² (350 kcmil) high-current through terminal block. An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 350 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).
The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 5-pole configuration (2 x S1 and 3 x S2) provides the following advantages:
- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer
The voltage is connected using a redundant terminal block. Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 185 mm² (350 kcmil) high-current through terminal block
- Integrated current transformer (350 A/1 A)
- Accuracy class: 0.5
- Fuse-protected voltage path

Note
Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-1185; 285-1184)
Suitable for 2-conductor through terminal blocks with mounting flanges (285-1161; 285-1164)
Spare fuse: WAGO 855-8020

Input	
Measured variable	Voltage; Current
Input – current transformer	
Rated continuous thermal current I_{cth}	350 A
Rated short-time thermal current I_{th}	21 kA / 1 s
Rated surge current I_{dyn}	52.5 kA
Rated frequency	50 … 60 Hz
Primary rated current	350 A
Output – current transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – voltage tap	
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Rated Voltage	400 VAC
Measurement error	
Accuracy class	0.5
Safety and protection/Environmental requirements	
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Test voltage	3 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	720 V_{rms}AC
Operating altitude (max.)	2000 m
Vibration resistance	10g (industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (ship; 5 … 150 Hz; per IEC 60068-2-6)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +70 °C
Relative humidity	5 … 85 % (without condensation)
Connection data	
Feedthrough for measurement conductor	Ø ≤ 21.5 mm
Connection object type 1	
Connection type	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 250 Series
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inches
Solid/fine-stranded/AWG	0.2 … 1.5 mm² / 0.2 … 1.5 mm² / 24 … 16 AWG
Connection object type 2	
Connection type	Voltage output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2624 Series
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth	32 mm x 84 mm x 60 mm
Mounting type	via 2-conductor high-current through terminal block's jumper slot
Housing material	PA 66
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

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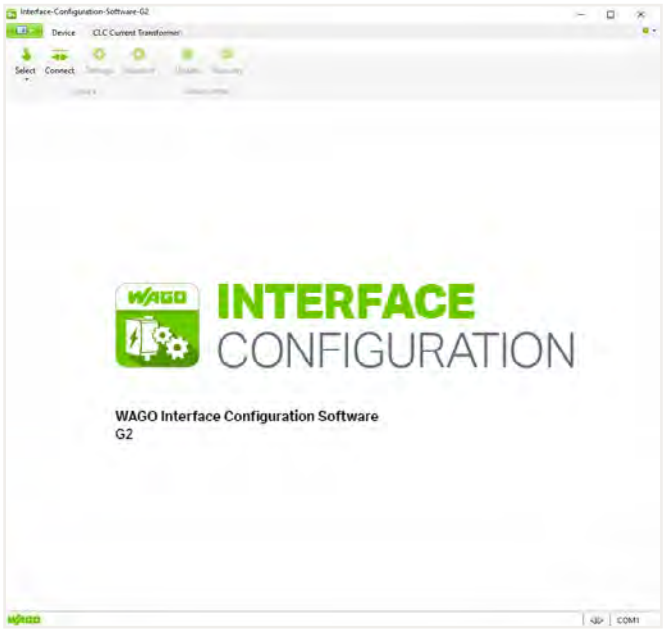
Line Length Calculation for Current Transformers

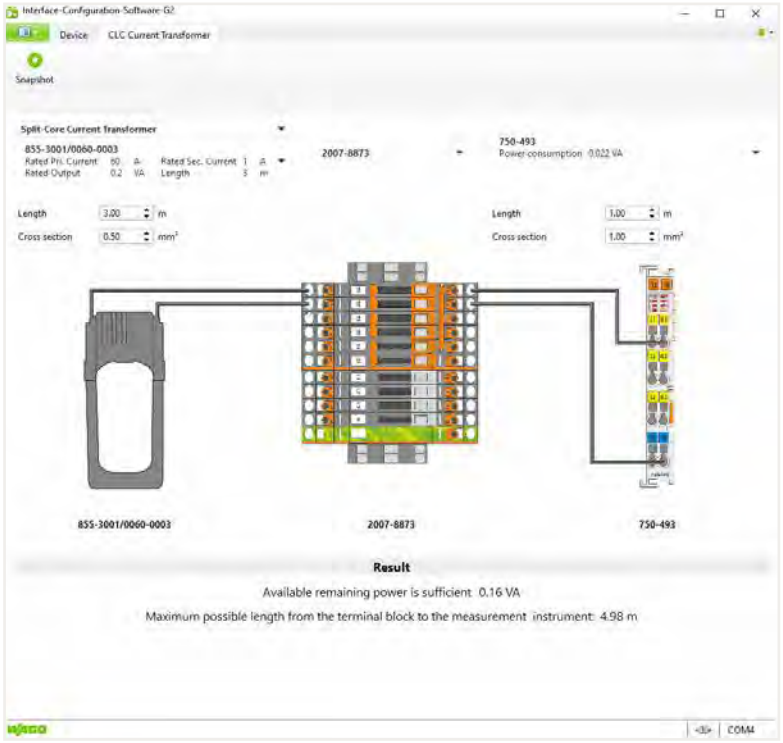
Refined Solution for Your System Planning

To determine actual power requirements, both the power requirements of the connected measurement devices and the power losses from the measurement lines connected to a transformer's secondary circuit must be taken into account.

The interface configuration software's new feature quickly and easily calculates cable length and provides the results for your system documentation.



WAGO Interface Configuration Software Start Screen



Cable length calculation using the interface configuration software

	11.05.2020 07:32 WAGO Kontakttechnik GmbH & Co. KG Interface Configuration Software(1.0.4.1)
Current Transformer	
Order number	855-3001/0060-0003
Rated Pri. Current	60 A
Rated Sec. Current	1 A
Rated Output	0.414 VA
Measurement Instrument	
Order number	750-493
Power consumption	0.022 VA
Cabel from transducer to terminal block	
Length	3 m
Cross section	0.5 mm²
Power loss	0.214 VA
Cabel from transducer to measurment instrument	
Length	1 m
Cross section	1 mm²
Power loss	0.036 VA
Result	
Available power	0.414 VA
Total power loss	0.250 VA
Remaining power	0.164 VA
Required power	0.022 VA
Result	Available remaining power is sufficient

Simply documented!

Power calculation of copper cables between measurement device and current transformer:

$$P_V = \frac{I_S^2 \times 2 \times l}{A_{CU} \times 56} \text{ VA}$$

I_S = Secondary rated measuring current strength [A]
l = Simple cable length in m
A_{CU} = Cable cross section in mm²
P_V = Power loss of connection cables

Note: When using a common three-phase return line, the values for P_V are halved.

Example:
A 1 amp or 5 amp current transformer is used, with an ammeter on the secondary circuit, at a distance of 10 m between the transformer and the measurement device.

Current transformer 5 A

$$P_V = \frac{5^2 \times 2 \times 10}{1.5 \times 56} \text{ VA} = 5.96 \text{ VA}$$

Current transformer 1 A

$$P_V = \frac{1^2 \times 2 \times 10}{1.5 \times 56} \text{ VA} = 0.24 \text{ VA}$$

Free software download at:
www.wago.com/configuration-software

WAGO Power Supply Systems

WAGO Power Supply Systems

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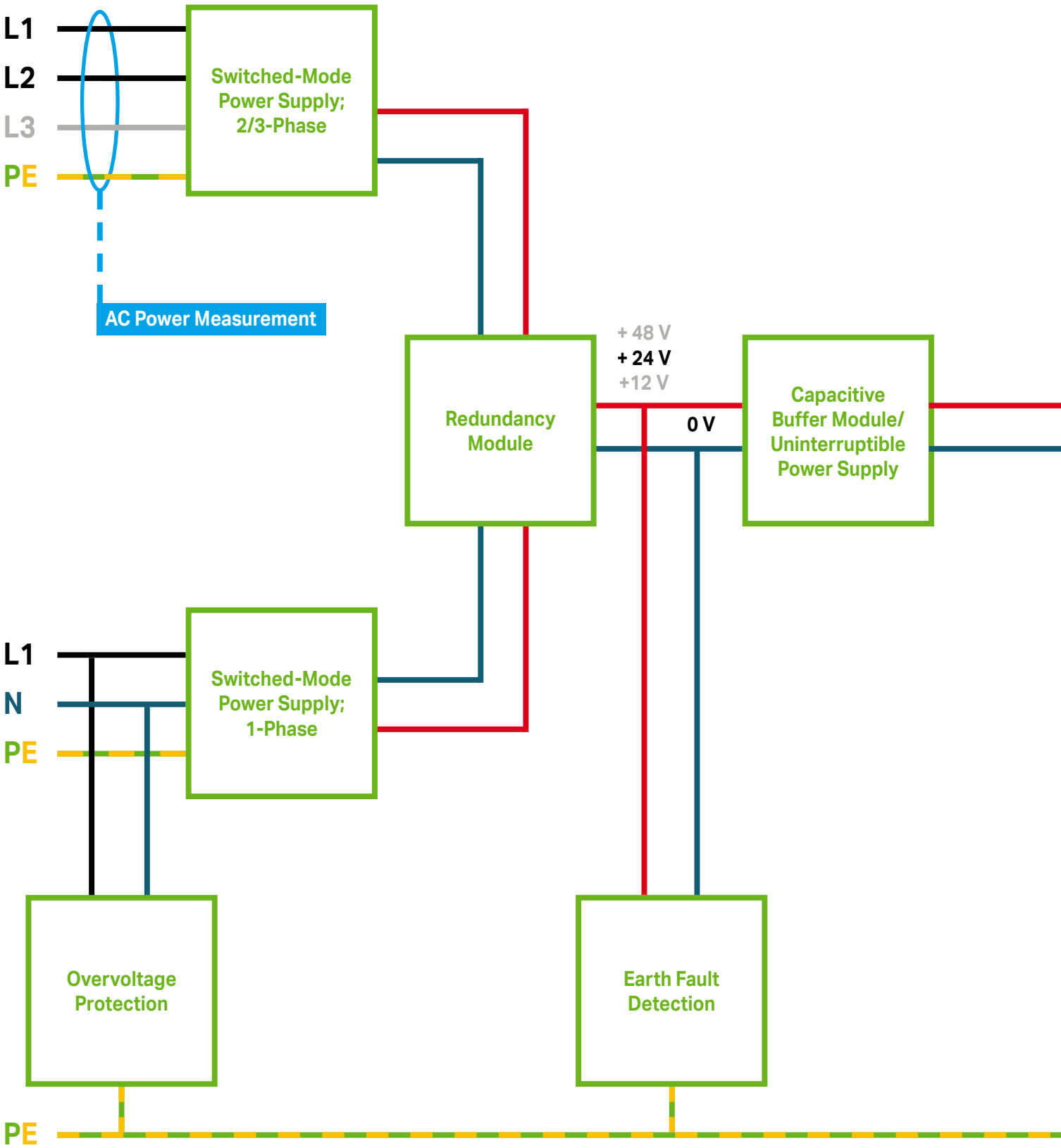
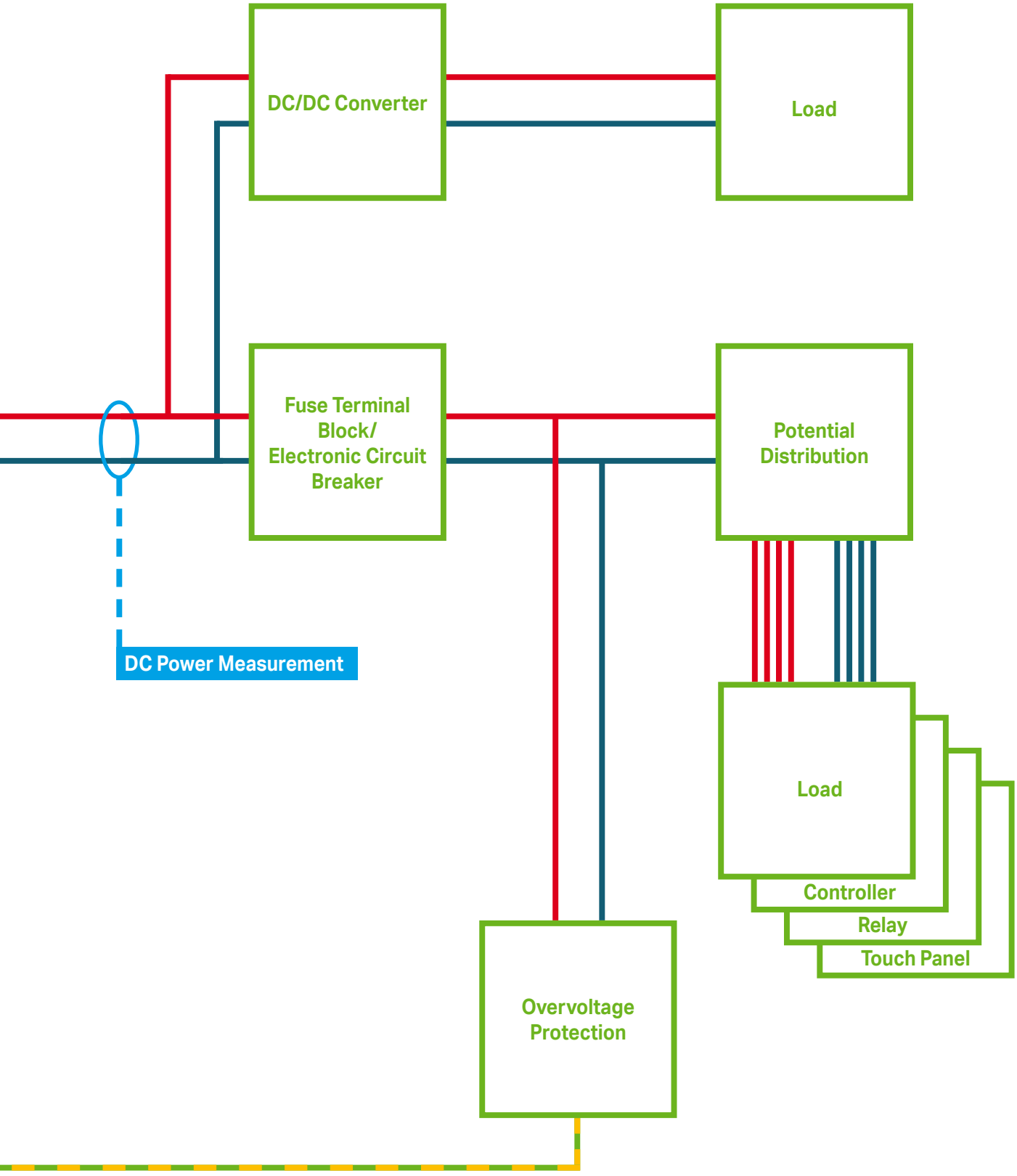
For more Informationen about WAGO Power Supply Systems please consult the catalog WAGO Power Supply Systems 2025/1 or via www.wago.com

WAGO Power Supply Systems
System Overview



WAGO Power Supply Systems
System Overview



WAGO Power Supply Systems

WAGO Power Supplies Pro 2

New Generation of Professional Power Supplies for Applications Requiring High Performance, Efficiency and Reliability

WAGO's Pro 2 Power Supplies offer tremendous added value thanks to flexible configuration and comprehensive monitoring via optional communication interface (WAGO USB Communication Cable and IO-Link Communication Module).

Advantages:
- TopBoost function: Up to 600% output current for 15 ms
- PowerBoost function: 150% output power for 5 s
- High efficiency thanks to a CCFL inverter topology
- Single- and three-phase power supplies with output voltages of 24 VDC and nominal output currents from 5 to 40 A
- Communication interface for configuring threshold values, overload and DI/DO behavior, as well as monitoring output variables, warning and error messages
- Permanent communication via IO-Link through an optional pluggable communication module

WAGO Power Supplies Pro

Applications with high output requirements call for professional power supplies capable of reliably handling power peaks. WAGO's Pro Power Supplies are ideally suited for such applications.

- TopBoost function: Multiplies the nominal current for up to 50 ms
- PowerBoost function: Provides 200% of output power for four seconds
- Single- and three-phase power supplies with output voltages of 12/24/48 VDC and nominal output currents from 5 to 40 A for nearly every application
- LineMonitor (option): Easy parameter setting and input/output monitoring
- Potential-free contact/stand-by input: Switch off output with no wear and minimize power consumption
- Serial RS-232 interface (option): Communicate with PC or PLC

WAGO Power Supplies Classic

Classic is the robust power supply with optional TopBoost integration. A wide input range and extensive list of international approvals open up WAGO's Classic Power Supplies to a wide variety of applications.

- TopBoost: cost-effective, secondary-side fusing via standard circuit breakers (≥ 120 W)
- Nominal output voltage: 12, 24, 30.5 and 48 VDC
- DC OK signal/contact for easy remote monitoring
- Wide input voltage range and UL/GL approvals for worldwide applications
- CAGE CLAMP® Connection Technology: maintenance-free and time-saving
- Slim, compact design saves valuable cabinet space

WAGO Power Supply Systems

WAGO Power Supplies Eco

Many applications only require 24 VDC. Here, WAGO's ECO Power Supplies are the economical solution.

- Output current: 1.25 … 40 A
- Wide input voltage range for use internationally: 90 … 264 VAC
- Economically supports basic applications
- CAGE CLAMP® Connection Technology: maintenance-free and time-saving
- LED status indication: output voltage availability (green), overcurrent/short circuit (red)
- Flexible mounting on DIN-rail and variable installation via screw-mount clips – perfect for every application
- Flat, rugged metal housing: compact and stable design

WAGO Power Supplies Eco 2

The Eco line of power supplies now includes WAGO Eco 2 Power Supplies with push-in technology and integrated WAGO levers. The new devices' compelling features include fast, reliable and tool-free lever connections, as well as an excellent price/performance ratio. At 25 mm and 38 mm wide, the power supplies are slim and compact. The devices are also extremely durable and reliable with their high efficiency of ≥ 88% (2687-2142) and lower thermal generation.

- Power supplies with a wide input voltage range of 90 … 264 VAC (100 … 373 VDC)Output voltage: 24 VDC, adjustable; Output power: 30 W (2687-2142) and 120 W (2687-2144)
- Integrated, tool-free lever-actuated push-in connection technology
- Slim design, high efficiency, good price/performance ratio
- Reliability, long service life (high MTBF)
- Quick, easy, maintenance- and tool-free connection technology

WAGO Power Supplies Compact

WAGO's compact, high-performance Compact Power Supplies in DIN-rail-mount housings are available with output voltages of 5, 12, 18 and 24 VDC, as well as nominal output currents up to 6.5 A.

- Wide input voltage range for use internationally: 85 … 264 VAC
- Flexible mounting on DIN-rail and variable installation via screw-mount clips
- Push-in CAGE CLAMP® Connection Technology (option): maintenance-free and time-saving
- Improved cooling due to a removable front plate: ideal for alternative mounting positions
- Dimensions per DIN 43880: suitable for installation in distribution and meter boards

WAGO Power Supply Systems

WAGO Power Supply Base

The WAGO Power Supply Base with the industry-proven Push-in CAGE CLAMP® connection provides essential functionality during operation and stands out for its cost-effectiveness. The new devices offer quick, reliable and tool-free connections, along with good efficiency.

- Reliable Spring Pressure Connections: The Push-in CAGE CLAMP® connection technology ensures stable input and output connections, even under vibration. Toolfree installation and maintenance simplify operation.
- High Efficiency: With an efficiency of up to 94% (at 20 A), the Base series contributes to reducing long-term operational costs.
- Robust and Durable: The 2587 Series is designed for continuous operation, even in extreme conditions within control cabinets. Temperature range: –30 … +70 °C
- Reliable Operation: With a Mean Time Between Failures (MTBF) exceeding 1,000,000 hours, the product ensures long life and reduced operating costs. The DC OK LED allows easy monitoring of the operating status.
- Compact Design: The 20 A model, with a width of just 56 mm, provides valuable space-saving in your control cabinet.

Uninterruptible Power Supply (UPS)

Consisting of a 24 V UPS charger and controller with one or more connected batteries, WAGO's Uninterruptible Power Supply reliably powers an application for several hours. Trouble-free machine or system operation is guaranteed – even in the event of brief power supply failures.

- Slim charging and control units save control cabinet space
- Integrated display and RS-232 interface (option) simplify visualization and configuration
- Pluggable CAGE CLAMP® Connection Technology: maintenance-free and time-saving
- Battery control technology for predictive maintenance that extends battery life

Capacitive Buffer Modules

In addition to reliably ensuring trouble-free machine and system operation – even through brief power failures – WAGO's Capacitive Buffer Modules offer power reserves that may be required when starting heavy motors or triggering a fuse.
Decoupled output: integrated diodes for decoupling buffered loads from unbuffered loads

- Maintenance-free and time-saving connections via pluggable connectors equipped with CAGE CLAMP® Connection Technology
- Unlimited parallel connections possible
- Adjustable switching threshold
- Maintenance-free, high-energy gold caps

WAGO Power Supply Systems

Redundancy Modules

WAGO's Redundancy Modules are ideal for reliably increasing power supply availability. These modules decouple two parallel-connected power supplies and are ideal for applications where an electrical load must be reliably supplied – even in the event of a power supply failure.

- Integrated power diodes with overload capability: suitable for Top-Boost or PowerBoost
- Potential-free contact (option) for input voltage monitoring
- Reliable connection via pluggable connectors equipped with CAGE CLAMP® or terminal strips with integrated operating levers: maintenance-free and time-saving
- Solutions for 12, 24 and 48 VDC supply, up to 76 A supply: suitable for nearly every application

Electronic Circuit Breakers (ECBs)

WAGO's ECBs are the space-saving and precision solution for fusing DC voltage circuits.

- 1-, 2-, 4- and 8-channel ECBs with fixed or adjustable currents ranging from 0.5 to 12 A
- High switch-on capacity: >50,000 µF
- Communication capability: remote monitoring and reset
- Pluggable CAGE CLAMP® Connection Technology (option): maintenance-free and time-saving
- Comprehensive range of approvals: many applications

DC/DC Converters

Instead of using an additional power supply, WAGO's DC/DC Converters are ideal for specialty voltages, allowing sensors and actuators to be reliably supplied.
DC/DC Converters can be used instead of an additional power supply for applications with specialty voltages.

- Slim design: "True" 6.0 mm (0.23 inch) width maximizes panel space
- Wide operating temperature range
- Ready for worldwide use in many industries, thanks to UL listing
- Common profile with 857 and 2857 Series Signal Conditioners and Relays: Enables full commoning of the supply voltage

WAGO Power Supply Systems
Selection Guide

Switched-Mode Power Supplies; 1-Phase

Product Family	Nominal voltage (output)	SELV / PELV	Nominal current (output) [ACD]	Input, 1-phase	Input, 2-phase	Standards/Approvals						DC OK LED	DC OK signal	DC OK contact	Communication capability	TopBoost	PowerBoost	with protective coating	Efficiency typ.	Surrounding air temperature	Item No.
						EN 60335	UL 60950	UL 508	UL 61010	DNV	ANSI/SA 12.12.1										
Compact	5 V	■	5.5 A	■			■	■		■			■						75 %	-25 … +60 °C	787-1020
Compact	12 V	■	2 A	■			■	■		■									80 %	-25 … +60 °C	787-1001
Eco	12 V	■	2 A	■		■						■							80 %	-20 … +60 °C	787-1701
Classic	12 V	■	2 A	■		■	■	■		■			■						82 %	-25 … +70 °C	787-1601
Compact	12 V	■	2.5 A	■		■		■				■							88 %	-25 … +70 °C	787-1201
Compact	12 V	■	4 A	■			■	■		■									85 %	-25 … +60 °C	787-1011
Eco	12 V	■	4 A	■		■						■							80 %	-20 … +60 °C	787-1711
Classic	12 V	■	4 A	■		■	■	■		■			■						86 %	-25 … +70 °C	787-1611
Compact	12 V	■	5 A	■		■	■	■				■							88.5 %	-25 … +70 °C	787-1211
Compact	12 V	■	6.5 A	■			■	■		■									87 %	-25 … +60 °C	787-1021
Classic	12 V	■	7 A	■		■	■	■		■			■						86 %	-25 … +70 °C	787-1621
Compact	12 V	■	8 A	■		■		■				■							91.5 %	-25 … +70 °C	787-1221
Eco	12 V	■	8 A	■		■						■							80 %	-20 … +60 °C	787-1721
Pro 2	12 V	■	10 A	■					■						■	■	■		93.8 %	-25 … +70 °C	2787-2134
Classic	12 V	■	15 A	■			■	■		■				■		■			90 %	-25 … +70 °C	787-1631
Pro 2	12 V	■	15 A	■					■						■	■	■		95.3 %	-25 … +70 °C	2787-2135
Compact	18 V	■	1.25 A	■						■		■							88 %	-25 … +70 °C	787-2857
Compact	18 V	■	2.4 A	■			■	■											84 %	-25 … +60 °C	787-1017
Compact	24 V	■	0.5 A	■		■		■				■							83 %	-25 … +70 °C	787-1200
Classic	24 V	■	1 A	■		■	■	■		■			■						86 %	-25 … +70 °C	787-1602
Compact	24 V	■	1.25 A	■						■									88 %	-25 … +70 °C	787-2850
Eco	24 V	■	1.25 A	■		■	■	■				■							87 %	-20 … +60 °C	787-1702
Eco 2	24 V	■	1.25 A	■					■			■							88 %	-25 … +70 °C	2687-2142
Compact	24 V	■	1.3 A	■			■	■		■									82 %	-25 … +60 °C	787-1002
Compact	24 V	■	1.3 A	■		■	■	■				■							87 %	-25 … +70 °C	787-1202
Classic	24 V	■	2 A	■		■	■	■		■			■						89 %	-25 … +70 °C	787-1606
Compact	24 V	■	2.5 A	■			■	■		■									88 %	-25 … +60 °C	787-1012
Compact	24 V	■	2.5 A	■		■	■	■				■							89 %	-25 … +70 °C	787-1212
Eco	24 V	■	2.5 A	■							■	■							86 %	-10 … +70 °C	787-712
Eco	24 V	■	2.5 A	■		■	■	■				■							88 %	-20 … +60 °C	787-1712
Pro	24 V	■	3 A	■			■	■						■		■	■		87.8 %	-25 … +70 °C	787-818
Classic	24 V	■	3.8 A	■		■	■	■		■			■						87 %	-25 … +70 °C	787-1616/000-1000
Compact	24 V	■	4 A	■			■	■		■									88 %	-25 … +60 °C	787-1022
Classic	24 V	■	4 A	■		■	■	■					■					■	89 %	-25 … +70 °C	787-1616/000-070
Classic	24 V	■	4 A	■		■	■	■		■			■						89 %	-25 … +70 °C	787-1616
Pro	24 V	■	5 A	■			■	■						■		■	■		87.8 %	-25 … +70 °C	787-822
	24 V		4 A	■				■									■		92.3 %	-40 … +85 °C	787-6716
Compact	24 V	■	4.2 A	■		■	■	■				■							90 %	-25 … +70 °C	787-1216
Base	24 V	■	5 A	■					■			■							88 %	-30 … +70 °C	2587-2144
Eco	24 V	■	5 A	■					■			■							86 %	-10 … +60 °C	787-722
Eco	24 V	■	5 A	■		■	■	■				■							88 %	-20 … +60 °C	787-1722
Eco 2	24 V	■	5 A	■					■					■					90 %	-25 … +70 °C	2687-2144
Classic	24 V	■	5 A	■		■	■	■		■				■		■			89 %	-25 … +70 °C	787-1622
Classic	24 V	■	5 A	■	■		■	■		■				■					89 %	-25 … +70 °C	787-1628
Pro 2	24 V	■	5 A	■					■						■	■	■		93.8 %	-25 … +70 °C	2787-2144
Pro 2	24 V	■	5 A	■					■	■					■	■	■		93.8 %	-25 … +70 °C	2787-2144/000-030
Pro 2	24 V	■	5 A	■					■	■					■	■	■	■	93.8 %	-25 … +70 °C	2787-2144/000-070
Compact	24 V	■	6 A	■		■	■	■				■							90 %	-25 … +70 °C	787-1226
Base	24 V	■	10 A	■					■			■							91 %	-30 … +70 °C	2587-2146
Eco	24 V	■	10 A	■					■			■							86 %	-10 … +70 °C	787-732
Eco	24 V	■	10 A	■		■	■	■				■							91 %	-20 … +60 °C	787-1732
Eco 2	24 V	■	10 A	■					■					■					93 %	-25 … +70 °C	2687-2146
Classic	24 V	■	10 A	■			■	■						■		■		■	91 %	-25 … +70 °C	787-1632/000-070
Classic	24 V	■	10 A	■			■	■		■				■		■			91 %	-25 … +70 °C	787-1632
Classic	24 V	■	10 A	■	■		■	■		■				■					89 %	-25 … +70 °C	787-1638
Pro	24 V	■	10 A	■			■	■						■		■	■		90 %	-25 … +70 °C	787-832
Pro 2	24 V	■	10 A	■					■						■	■	■		95.2 %	-25 … +70 °C	2787-2146
Pro 2	24 V	■	10 A	■					■	■					■	■	■		95.2 %	-25 … +70 °C	2787-2146/000-030
Pro 2	24 V	■	10 A	■					■	■					■	■	■	■	95.2 %	-25 … +70 °C	2787-2146/000-070
Base	24 V	■	20 A	■					■			■							94 %	-30 … +70 °C	2587-2147
Eco	24 V	■	20 A	■			■	■						■					90 %	-25 … +70 °C	787-734
Classic	24 V	■	20 A	■			■	■		■				■		■			92 %	-25 … +70 °C	787-1634

WAGO Power Supply Systems
Selection Guide

Switched-Mode Power Supplies; 1-Phase

Product Family	Nominal voltage (output)	SELV / PELV	Nominal current (output) [ACD]	Input, 1-phase	Input, 2-phase	Standards/Approvals						DC OK LED	DC OK signal	DC OK contact	Communication capability	TopBoost	PowerBoost	with protective coating	Efficiency typ.	Surrounding air temperature	Item No.
						EN 60335	UL 60950	UL 508	UL 61010	DNV	ANSI/SA 12.12.1										
Pro	24 V	■	20 A	■			■	■						■		■	■		91 %	-25 … +70 °C	787-834
Pro 2	24 V	■	20 A	■					■						■	■	■		95.4 %	-25 … +70 °C	2787-2147
Pro 2	24 V	■	20 A	■					■	■					■	■	■		95.4 %	-25 … +70 °C	2787-2147/000-030
Pro 2	24 V	■	20 A	■					■	■					■	■	■	■	95.4 %	-25 … +70 °C	2787-2147/000-070
Eco	24 V	■	40 A	■			■	■						■					90 %	-25 … +70 °C	787-736
Pro 2	24 V	■	40 A	■					■						■	■	■		96 %	-25 … +70 °C	2787-2448
Pro 2	24 V	■	40 A	■					■	■					■	■	■		96 %	-25 … +70 °C	2787-2448/000-030
Pro 2	24 V	■	40 A	■					■	■					■	■	■	■	96 %	-25 … +70 °C	2787-2448/000-070
Classic	48 V	■	2 A	■		■	■	■		■			■						86 %	-25 … +70 °C	787-1623
Pro 2	48 V	■	2.5 A	■					■						■	■	■		95.3 %	-25 … +70 °C	2787-2154
Classic	48 V	■	5 A	■			■	■		■				■		■			92 %	-25 … +70 °C	787-1633
Pro	48 V	■	5 A	■			■	■						■		■	■		91 %	-25 … +70 °C	787-833
Classic	48 V	■	10 A	■			■	■						■		■		■	93 %	-25 … +70 °C	787-1635/000-070
Classic	48 V	■	10 A	■			■	■		■				■		■			93 %	-25 … +70 °C	787-1635
Pro	48 V	■	10 A	■			■	■						■		■	■		91 %	-25 … +70 °C	787-835
Pro 2	48 V	■	10 A	■					■						■	■	■		95.3 %	-25 … +70 °C	2787-2157

Switched-Mode Power Supplies; 3-Phase

Product Family	Nominal voltage (output)	SELV / PELV	Nominal current (output) [ACD]	Input, 2-phase	Input, 3-phase	Standards/Approvals					DC OK LED	DC OK signal	DC OK contact	Communication capability	TopBoost	PowerBoost	with protective coating	Efficiency typ.	Surrounding air temperature	Item No.
						UL 60950	UL 508	UL 61010	DNV	ANSI/SA 12.12.1										
Pro 2	24 V	■	5 A		■			■						■	■	■		92.5 %	-25 … +70 °C	2787-2344
Pro 2	24 V	■	5 A		■			■	■					■	■	■		92.5 %	-25 … +70 °C	2787-2344/000-030
Pro 2	24 V	■	5 A		■			■	■					■	■	■	■	92.5 %	-25 … +70 °C	2787-2344/000-070
Eco	24 V	■	6.25 A	■	■	■	■						■					87 %	-25 … +70 °C	787-738
Eco	24 V	■	10 A	■	■	■	■						■					89 %	-25 … +70 °C	787-740
Eco 2	24 V	■	10 A		■			■					■					92.5 %	-25 … +70 °C	2687-2346
Classic	24 V	■	10 A	■	■	■	■		■				■					90 %	-25 … +70 °C	787-1640
Pro	24 V	■	10 A	■	■	■	■						■		■	■		91.7 %	-25 … +70 °C	787-840
Pro	24 V	■	10 A	■	■	■	■					■		■	■	■		91.7 %	-25 … +70 °C	787-850
Pro 2	24 V	■	10 A		■			■						■	■	■		94.1 %	-25 … +70 °C	2787-2346
Pro 2	24 V	■	10 A		■			■	■					■	■	■		94.1 %	-25 … +70 °C	2787-2346/000-030
Pro 2	24 V	■	10 A		■			■	■					■	■	■	■	94.1 %	-25 … +70 °C	2787-2346/000-070
Eco	24 V	■	20 A	■	■	■	■						■					90 %	-25 … +70 °C	787-742
Eco	24 V	■	20 A	■	■								■					92 %	-20 … +70 °C	787-2742
Classic	24 V	■	20 A	■	■	■	■		■				■					92 %	-25 … +70 °C	787-1642
Pro	24 V	■	20 A	■	■	■	■						■		■	■		92.9 %	-25 … +70 °C	787-842
Pro	24 V	■	20 A	■	■	■	■					■		■	■	■		92.9 %	-25 … +70 °C	787-852
Pro 2	24 V	■	20 A		■			■						■	■	■		95.9 %	-25 … +70 °C	2787-2347
Pro 2	24 V	■	20 A		■			■	■					■	■	■		95.9 %	-25 … +70 °C	2787-2347/000-030
Pro 2	24 V	■	20 A		■			■	■					■	■	■	■	95.9 %	-25 … +70 °C	2787-2347/000-070
Eco	24 V	■	40 A	■	■								■					92.3 %	-20 … +70 °C	787-2744
Classic	24 V	■	40 A	■	■	■	■		■				■					92 %	-25 … +70 °C	787-1644
Pro	24 V	■	40 A	■	■	■	■						■		■	■		93.6 %	-25 … +55 °C	787-844
Pro	24 V	■	40 A	■	■	■	■						■		■	■		93.6 %	-25 … +55 °C	787-844/000-002
Pro	24 V	■	40 A	■	■	■	■					■		■	■	■		93.6 %	-25 … +55 °C	787-854
Pro 2	24 V	■	40 A		■			■						■	■	■		96.1 %	-25 … +70 °C	2787-2348
Pro 2	24 V	■	40 A		■			■	■					■	■	■	■	96.1 %	-25 … +70 °C	2787-2348/000-070
Pro 2	24 V	■	40 A		■			■	■					■	■	■		96.1 %	-25 … +70 °C	2787-2348/000-030
Eco 2	24 V	■	5 A		■			■					■					88 %	-25 … +70 °C	2687-2344
Pro	48 V	■	10 A	■	■	■	■						■		■	■		93 %	-25 … +70 °C	787-845
Pro 2	48 V	■	10 A		■			■						■	■	■		95 %	-25 … +70 °C	2787-2357
Pro	48 V	■	20 A	■	■	■	■						■		■	■		94.4 %	-25 … +70 °C	787-847
Pro 2	48 V	■	20 A		■			■						■	■	■		96 %	-25 … +70 °C	2787-2358

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WAGO Power Supply Systems Selection Guide

Uninterruptible Power Supplies (UPS)

Input		Output		Storage type			Standards/Approvals			Communication					Dimensions and Environmental Requirements				Item No.
Nominal voltage [VAC]	Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [ADC]	Lead-Acid (AGM)	LiFePO4	Supercaps	UL 60950	UL 508	DNV	RS-232 serial interface	1 x digital input for remote ON/OFF	MODBUS RTU	RS-485	Integrated communication bus	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	
	24 VDC	24 V	4 A			■						■	■		63 mm	120 mm	108 mm	-20 … +65 °C	2685-1002/601-204
100 … 240 VAC		24 V	5 A	■			■	■	■	■					60 mm	127 mm	135.5 mm	-25 … +70 °C	787-1675
	24 VDC	24 V	6 A		■							■	■		63 mm	120 mm	108 mm	-20 … +50 °C	2685-1002/408-206
	24 VDC	24 V	10 A	■			■	■		■					40 mm	163 mm	163 mm	-10 … +60 °C	787-870
	24 VDC	24 V	20 A	■			■	■		■					57 mm	171 mm	163 mm	-10 … +60 °C	787-875
	24 VDC	24 V	20 A; 40 A			■					■				55 mm	127 mm	131.5 mm	-25 … +70 °C	2685-1001/601-220
	24 VDC	24 V	40 A	■											68 mm	181 mm	162 mm	0 … +50 °C	787-915
	24 VDC	24 V	40 A	■										■	45 mm	127 mm	128.5 mm	-40 … +70 °C	2685-2001/100-240
	24 VDC	24 V	40 A			■								■	77 mm	127 mm	139 mm	-25 … +70 °C	2685-2501/603-240

Battery Modules

Input	Output				Battery-Control	Storage type		Standards/Approvals		Dimensions and Environmental Requirements					Item No.
Nominal voltage [VDC]	Nominal voltage [VDC]	Capacity (Battery)				Lead-Acid (AGM)	Pure lead	UL 508	VdS-tested battery	Width	Height	Depth	Depth from upper-edge of DIN-rail	Surrounding air temperature	
		[Ah]	[Wh]	[kJ]											
24 VDC	24 V	0.8 Ah	19.2 Wh	69.12 kJ	■					72 mm	97 mm		124 mm	-15 … +40 °C	787-1671
24 VDC	24 V	1.2 Ah	28.8 Wh	103.68 kJ	■		■	■	■	55 mm	153 mm		126.6 mm	-10 … +40 °C	787-876
24 VDC	24 V	2.5 Ah	60 Wh	216 kJ		■				86 mm	186 mm	160 mm		-40 … +60 °C	787-878/000-2500
24 VDC	24 V	3.2 Ah	76.8 Wh	276.48 kJ	■		■	■	■	76.2 mm	168 mm	175.5 mm		-10 … +40 °C	787-871
24 VDC	24 V	7 Ah	168 Wh	604.8 kJ	■		■	■	■	86 mm	239 mm	217.5 mm		-10 … +40 °C	787-872
24 VDC	24 V	12 Ah	288 Wh	1036.8 kJ	■		■	■	■	120.5 mm	239 mm	217.5 mm		-10 … +40 °C	787-873
24 VDC	24 V	13 Ah	312 Wh	1123.2 kJ		■				217 mm	186 mm	199.5 mm		-40 … +60 °C	787-878/001-3000

Capacitive Buffer Modules

Input	Output		Buffer time	Standards/Approvals				Signaling						Dimensions and Environmental Requirements				Item No.
Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [ADC]		EN 60950	EN 61000-6-2	EN 61000-6-3	UL 508	DC OK LED	LED Charge	LED UPS	LED DC not OK	LED Warning	1 x Isolated relay contact	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	
24 VDC	24 V	10 A	0.06 … 7.2 s	■	■	■	■	■	■		■		■	57 mm	163 mm	179 mm	-10 … +50 °C	787-880
24 VDC	24 V	20 A	0.17 … 16.5 s	■	■	■	■	■	■		■		■	57 mm	181 mm	179 mm	-10 … +50 °C	787-881
24 VDC	24 V	40 A	0.3 … 6.6 s		■	■		■		■		■	■	68 mm	181 mm	162 mm	-10 … +50 °C	787-916

Redundancy Modules

Input	Output			Standards/Approvals					Dimensions and Environmental Requirements				Item No.
Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [ADC]		UL 60950	UL 508	DNV	ANSI/ISA 12.12.1	ATEX/IEC Ex	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	
		Redundancy operation	Parallel operation										
2 x 9 … 54 VDC	9 … 54 VDC	12.5 A	25 A		■				50 mm	130 mm	92 mm	-25 … +70 °C	787-783
2 x 9 … 54 VDC	9 … 54 VDC	12.5 A	25 A		■		■	■	50 mm	130 mm	92 mm	-25 … +70 °C	787-783/000-040
2 x 9 … 54 VDC	9 … 54 VDC	40 A	76 A		■				83 mm	130 mm	153 mm	-25 … +70 °C	787-785
2 x 9 … 54 VDC	9 … 54 VDC	40 A	76 A		■		■	■	83 mm	130 mm	153 mm	-25 … +70 °C	787-785/000-040
2 x 10 … 36 VDC	10 … 36 VDC	40 A	40 A	■	■	■			42 mm	127 mm	139.5 mm	-40 … +70 °C	787-1685
2 x 18 … 30 VDC	18 … 30 VDC	20 A	40 A	■	■				40 mm	181 mm	163 mm	-10 … +60 °C	787-885
2 x 36 … 54 VDC	36 … 54 VDC	20 A	40 A						40 mm	181 mm	163 mm	-10 … +60 °C	787-886

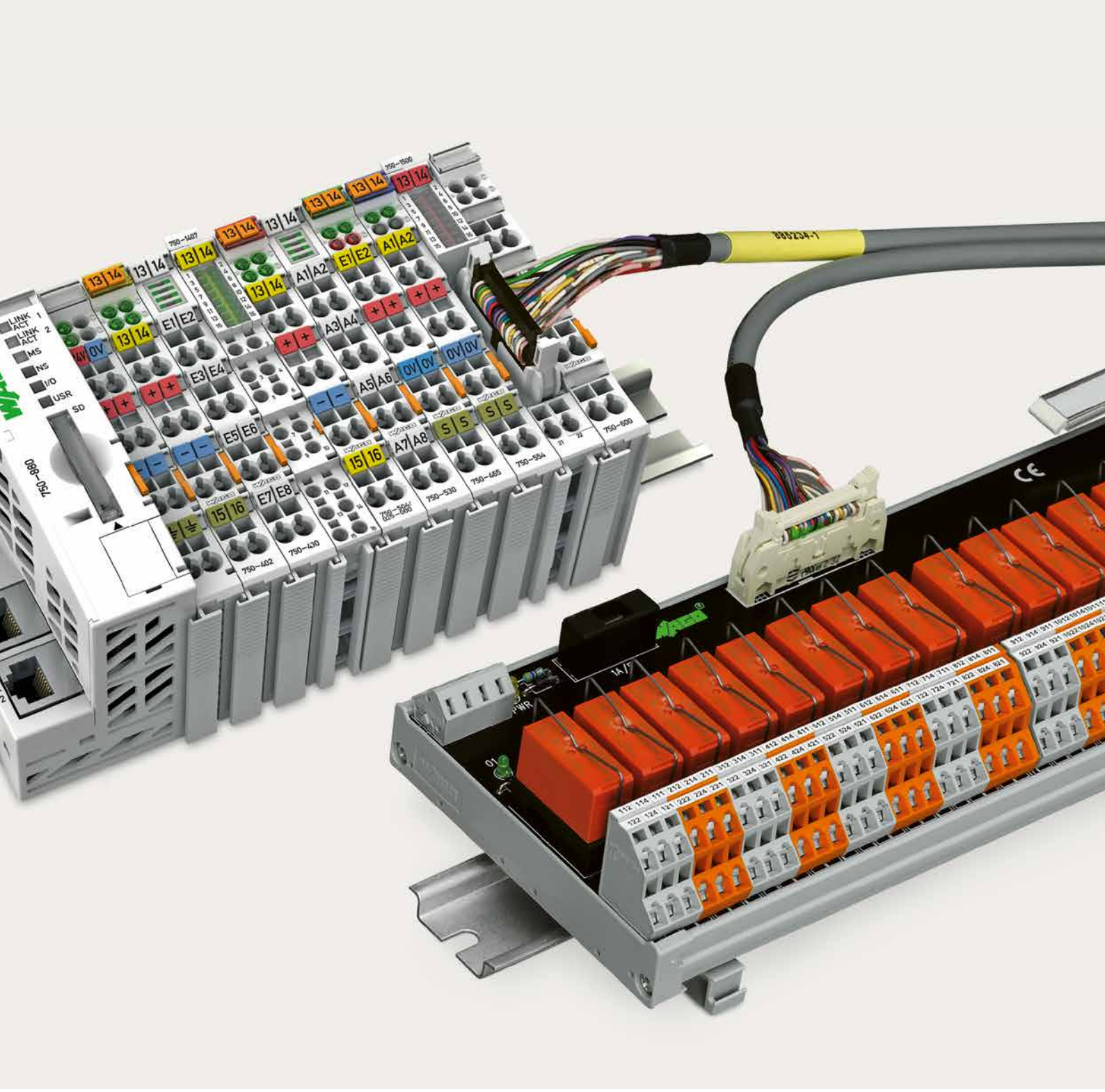
WAGO Power Supply Systems
Selection Guide

DC/DC Converters

Input	Output		Standards/Approvals				Signaling		Dimensions and Environmental Requirements				Item No.
Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [A]	EN 50125	EN 50121-3-2	UL 61010	DNV	DC OK LED	1 x Active signal output	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	
24 VDC	5 V	0.5 A			■		■	■	6 mm	94 mm	97.8 mm	-25 … +70 °C	**787-2801**
24 VDC	5 V / 10 V / 12 V	0.5 A			■		■	■	6 mm	94 mm	97.8 mm	-25 … +70 °C	**787-2810**
24 VDC	10 V	0.5 A			■		■	■	6 mm	94 mm	97.8 mm	-25 … +70 °C	**787-2802**
24 VDC	12 V	4 A					■		45 mm	90 mm	107.5 mm	-25 … +70 °C	**787-1650**
24 VDC	12 V	0.5 A			■		■	■	6 mm	94 mm	97.8 mm	-25 … +70 °C	**787-2805**
48 VDC	24 V	0.5 A			■		■	■	6 mm	94 mm	97.8 mm	-25 … +70 °C	**787-2803**
72 VDC	12 V	4 A	■	■		■	■		72 mm	89 mm	55 mm	-40 … +70 °C	**787-1015/072-000**
72 VDC	24 V	2 A		■		■	■		72 mm	89 mm	55 mm	-40 … +70 °C	**787-1014/072-000**
110 VDC	24 V	2 A		■		■	■		72 mm	89 mm	55 mm	-40 … +70 °C	**787-1014**

Safety Transformers

Input	Output			Standards/Approvals		Dimensions and Environmental Requirements				Item No.
Nominal voltage [VAC]	Nominal voltage [VAC]	Nominal current [A]	Nominal power [VA]	UL 5085	EN 61558-2-6	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	
115 VAC / 230 VAC	12 / 24 VAC	3.3 A / 1.67 A	40 VA	■	■	126 mm	90 mm	54 mm	-25 … +55 °C	**787-974**
115 VAC / 230 VAC	12 / 24 VAC	5.2 A / 2.6 A	63 VA	■	■	144 mm	90 mm	54 mm	-25 … +55 °C	**787-976**



WAGO System Wiring

WAGO System Wiring

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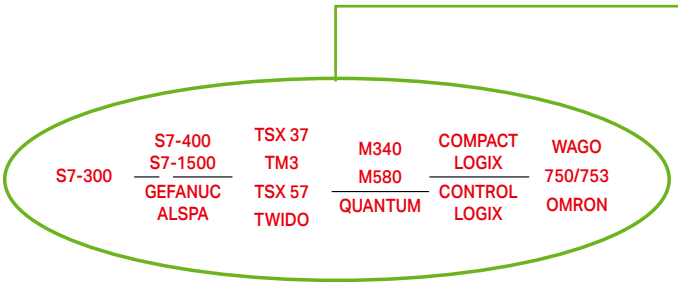
6

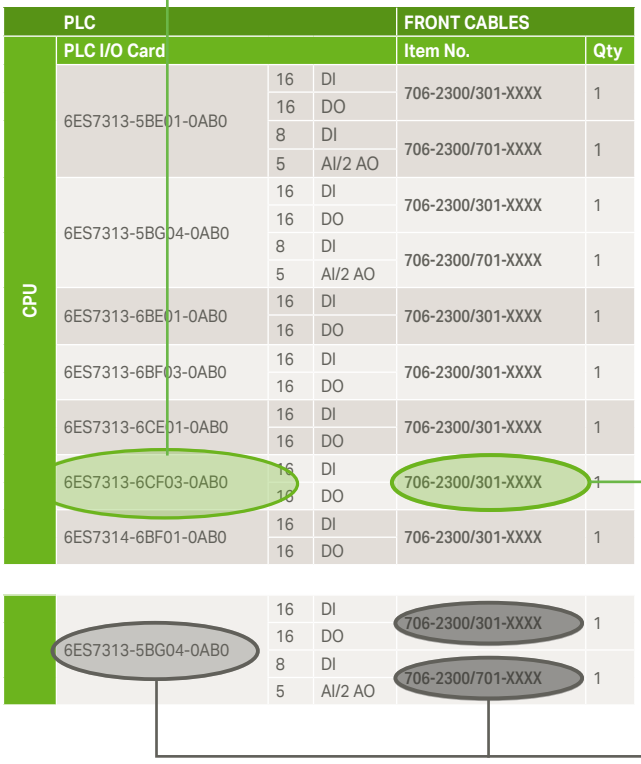
HOW TO USE THE PRODUCT SELECTOR



STEP 1

Use the tabs to select your PLC.

Ex.:
• PLC Siemens S7 - 300



	PLC			FRONT CABLES	
	PLC I/O Card			Item No.	Qty
CPU	6ES7313-5BE01-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
		8	DI	706-2300/701-XXXX	1
		5	AI/2 AO		
	6ES7313-5BG04-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
		8	DI	706-2300/701-XXXX	1
		5	AI/2 AO		
	6ES7313-6BE01-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
	6ES7313-6BF03-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
	6ES7313-6CE01-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
	6ES7313-6CF03-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
	6ES7314-6BF01-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
	6ES7313-5BG04-0AB0	16	DI	706-2300/301-XXXX	1
		16	DO		
		8	DI	706-2300/701-XXXX	1
		5	AI/2 AO		

STEP 2

Select a PLC I/O card.

Ex.:
• 6ES7313-6CF03-0AB0

STEP 3

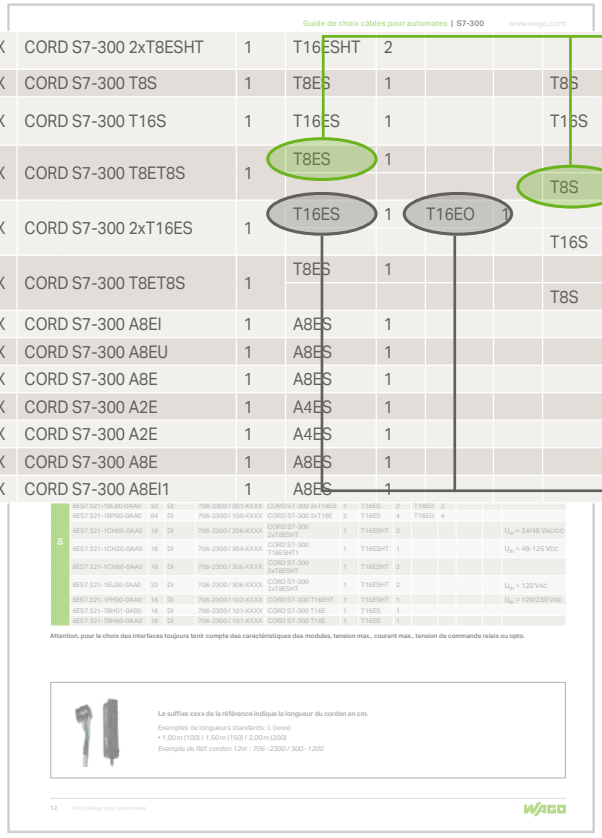
Read the item no. and quantity of the front cable to be used.

Ex.:
• 706-2300/301-XXXX* Qty : 1

In some cases, TWO different cables are necessary.

Ex.:
• **Card**: 6ES7313-5BG04-0AB0
• **Cable**s:
706-2300/301-XXXX* **Qty**: 1
AND
706-2300/701-XXXX* **Qty**: 1

*The item number suffix «xxx» indicates the length of cable in cm.



XXX	CORD S7-300 2xT8ESHT	1	T16ESHT	2				
XXX	CORD S7-300 T8S	1	T8ES	1			T8S	1
XXX	CORD S7-300 T16S	1	T16ES	1			T16S	1
XXX	CORD S7-300 T8ET8S	1	T8ES	1				
							T8S	1
XXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1		
							T16S	1
XXX	CORD S7-300 T8ET8S	1	T8ES	1				
							T8S	1
XXX	CORD S7-300 A8EI	1	A8ES	1				
XXX	CORD S7-300 A8EU	1	A8ES	1				
XXX	CORD S7-300 A8E	1	A8ES	1				
XXX	CORD S7-300 A2E	1	A4ES	1				
XXX	CORD S7-300 A2E	1	A4ES	1				
XXX	CORD S7-300 A8E	1	A8ES	1				
XXX	CORD S7-300 A8EI1	1	A8ES	1				

STEP 4

Select the compatible type of interfaces.

Ex.:
- **Card**: 6ES7323-1BH01-0AA0
- Type of interfaces:
  T8ES **Qty**: 1 **AND** T8S **Qty**: 1

In some cases you have the choice between TWO different types of interface.

Ex.:
- **Card**: 6ES7323-1BL00-0AA0
- Types **of interfaces**:
T16ES **Qty**: 1 **OR** T16EO **Qty**: 1
AND T16S **Qty**: 1

WAGO Interface Modules

Type		Description	Item No.
DI/DO	T8ES	10-pole; without supply	289-611
		10-pole; with LED; 3-wire	704-2003
	T8ESHT	12-pole (*MCS*); without LED; 2 conductors; up to 250 V	704-3003
	T8S	10-pole; with LED; electrical isolation: 5 A relay	704-5003
		10-pole; with LED; electrical isolation: 5 A relay; manual operation	704-5013
	T16ES	20-pole; without supply	289-614
		20-pole; with LED; 1-wire	704-2004
		20-pole; with LED; 1-wire; channel isolation	704-2014
		20-pole; with LED; 2-wire	704-2024

STEP 5

Select the compatible interfaces.

Ex.:
- 704-2003
- 704-5013

In most cases you have the choice between different products.

Ex.:
- Type of interfaces: T8S
- Products: 704-5003 or 704-5013

On the basis of the short description in the table or the more extensive technical data in the eShop the required interface module can be selected.

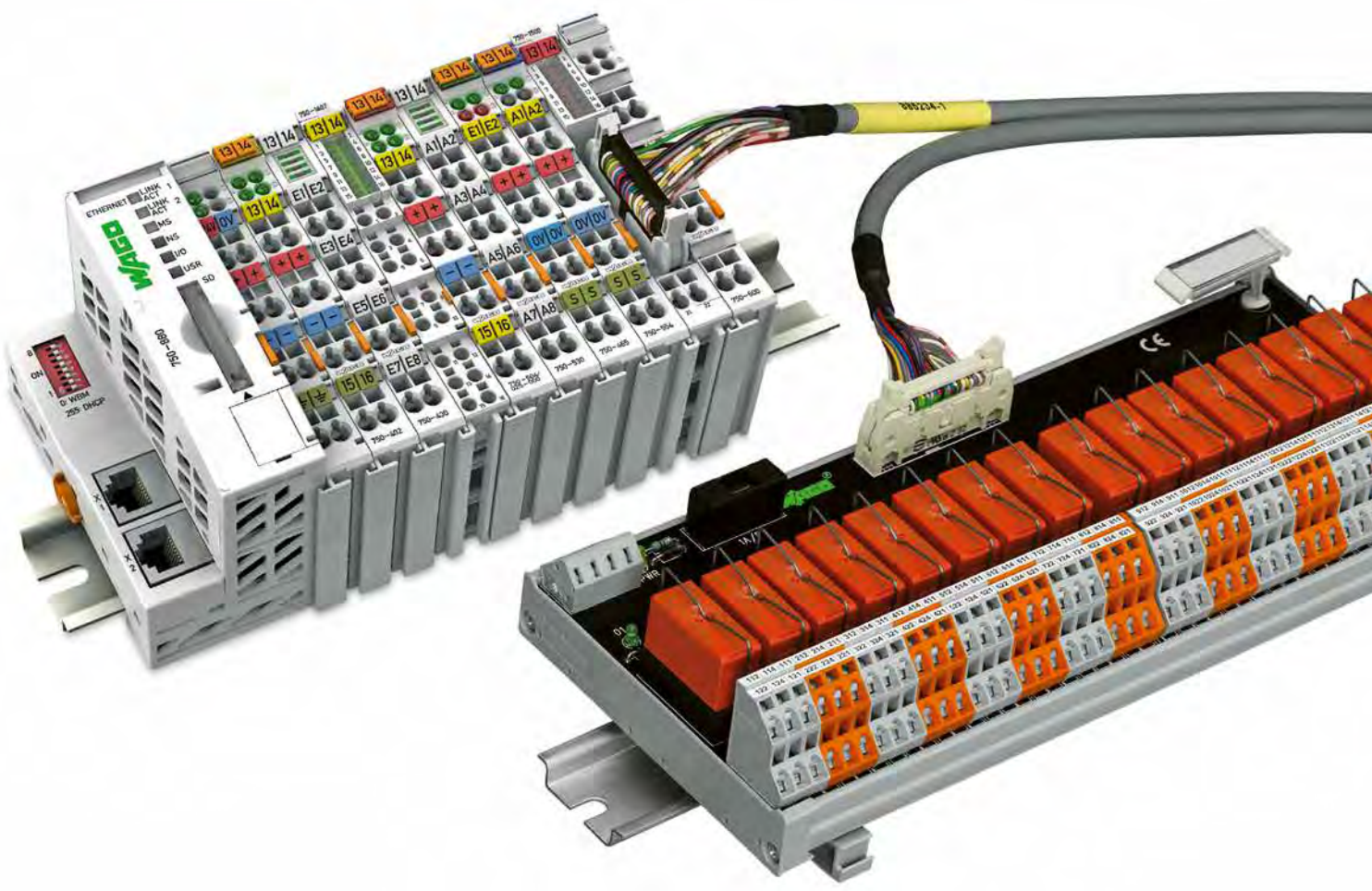
WAGO System Wiring
Overview and Application Examples

16-Channel I/O Module with Interface Module

The 750-14xx and 750-15xx I/O Modules with a pluggable connector per DIN 41651 offer 16 digital channels in a module less than 1⁄2 inch (12 mm) wide. Offering quick connections and a space-efficient design, the DIN-rail-mount interface modules simplify installation in confined areas and conveniently relocate the termination point. When combined with WAGO's interface modules (e.g., Item No. 289-614, 289-611), a control cabinet can be pre-wired before installation to minimize wiring time and errors. This is beneficial as wiring can be performed independently of construction.

The programmed controller can be installed right before start-up, saving valuable time during final stages of project completion. The I/O modules are also ideal for connecting series machines or relay modules tasked with the higher loads common to buildings and industrial applications. The interface modules also combine the advantages of relays (e.g., manual operation or rapid replacement with socket-mounted versions) with the benefits of a modern I/O system. Another ideal application would be the integration of pneumatic controllers into a fieldbus network.

Most pneumatic modules have an appropriate connector and can be controlled by the WAGO I/O SYSTEM. Six variants are available: two 16-channel input or output modules (one high-side and one low-side switching variant), as well as two versions combining 8 inputs and 8 outputs.



SIEMENS-SPS ET200SP

	PLC			FRONT CABLE			COMPATIBLE INTERFACE						
	PLC IO card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	6ES7131-6BH01-0BA0	16	DI	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1	T16EO	1			BaseUnit type A0
	6ES7131-6BH01-2BA0	16	DI	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1	T16EO	1			BaseUnit type A0
	6ES7131-6BF01-0BA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF01-2BA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF00-0CA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF00-2CA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF00-0DA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF01-0AA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF01-2AA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
	6ES7131-6BF61-0AA0	8	DI	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1					BaseUnit type A0
DO	6ES7132-6BH01-0BA0	16	DO	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1			T16S	1	BaseUnit type A0
	6ES7132-6BH00-0AA0	16	DO	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1			T16S	1	BaseUnit type A0
	6ES7132-6BH00-2AA0	16	DO	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1			T16S	1	BaseUnit type A0
	6ES7132-6BH01-2BA0	16	DO	706-150/320-xxxx *	Cord universal HE10	1	T16ES	1			T16S	1	BaseUnit type A0
	6ES7132-6BF01-0BA0	8	DO	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1			T8S	1	BaseUnit type A0
	6ES7132-6BF00-0CA0	8	DO	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1			T8S	1	BaseUnit type A0
	6ES7132-6BF01-0AA0	8	DO	706-2200/700-xxxx *	Cord ET200SP T8ES	1	T8ES	1			T8S	1	BaseUnit type A0
AI	6ES7134-6FF00-0AA1	8	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6FB00-0BA1	2	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6HD01-0BA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6HD01-2BA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6HB00-0CA1	2	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6HB00-0DA1	2	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6GF00-0AA1	8	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6GB00-0BA1	2	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6GD01-0BA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6GD01-2BA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6JF00-0CA1	8	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6JF00-2CA1	8	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6JD00-0CA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6JD00-2CA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7134-6TD00-0CA1	4	AI	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
AO	6ES7135-6FB00-0BA1	2	AO	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7135-6GB00-0BA1	2	AO	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7135-6HD00-0BA1	4	AO	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7135-6HB00-0CA1	2	AO	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1
	6ES7135-6HB00-0DA1	2	AO	706-150/320-xxxx *	Cord universal HE10	1	289-614	1					BaseUnit type A0, A1

* Adapter 704-9024 must be ordered in addition to the front cable

COMPATIBLE BASES ET200SP

	Bases	Destination	Adapter compatibility	Removal tool compatibility (704-9025)
BaseUnit A0	6ES7193-6BP00-0DA0	BU15-P16+A0+2D	Compatible	706-150/320-xxxx *
	6ES7193-6BP60-0DA0	2BU15-P16+A0+2DB	Compatible with two adapters (double base)	706-150/320-xxxx *
	6ES7193-6BP00-0BA0	BU15-P16+A0+2B	Compatible	706-2200/700-xxxx *
	6ES7193-6BP60-0BA0	2BU15-P16+A0+2B	Compatible with two adapters (double base)	706-2200/700-xxxx *
BaseUnit A1	6ES7193-6BP40-0DA1	BU15-P16+A0+12D/T	Compatible if B at + and C at -	706-2200/700-xxxx *
	6ES7193-6BP00-0DA1	BU15-P16+A0+2D/T	Compatible	706-2200/700-xxxx *
	6ES7193-6BP40-0BA1	BU15-P16+A0+12B/T	Compatible if B at + and C at -	706-150/320-xxxx *
	6ES7193-6BP00-0BA1	BU15-P16+A0+2B/T	Compatible	706-150/320-xxxx *

- Leaves Siemens base buttons accessible
- Integrated push-button for the extraction of the Siemens cartridge
- Connector HE10 20 points
- Extraction possible with the removal tool 704-9025

704-9024, Adapter for Siemens ET200SP

704-9025, Removal tool

S7 300

PLC SIEMENS S7-300

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
CPU	6ES7 313-5BE01-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7	1	T8ES	1					
		5	AI/2 AO				A8TSX	1					
	6ES7 313-5BG04-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7	1	T8ES	1					
		5	AI/2 AO				A8TSX	1					
	6ES7 313-6BE01-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
	6ES7 313-6BF03-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
	6ES7 313-6CE01-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
	6ES7 313-6CF03-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
	6ES7 314-6BF01-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7ES	1	T8ES	1					
		5	AI/2 AO				A8TSX	1					
	6ES7 314-6BG03-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7	1	T8ES	1					
		5	AI/2 AO				A8TSX	1					
	6ES7 314-6CF01-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7	1	T8ES	1					
		5	AI/2AO				A8TSX	1					
	6ES7 314-6CG03-0AB0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
		8	DI	706-2300/701-XXXX	CORD S7-300 T8EA7	1	T8ES	1					
		5	AI/2 AO				A8TSX	1					
DI	6ES7 321-1BH02-0AA0	16	DI	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1	T16EO	1			
	6ES7 321-1BH10-0AA0	16	DI	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1	T16EO	1			
	6ES7 321-1BH80-0AA0	16	DI	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1	T16EO	1			
	6ES7 321-1BL00-0AA0	32	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	2	T16EO	2			
	6ES7 321-1BL80-0AA0	32	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	2	T16EO	2			
	6ES7 321-1BP00-0AA0	64	DI	706-2300/100-XXXX	CORD S7-300 2xT16E	2	T16ES	4	T16EO	4			
	6ES7 321-1CH00-0AA0	16	DI	706-2300/306-XXXX	CORD S7-300 2xT8ESHT	1	T16ESHT	2					U_{in} = 24/48 VAC/DC
	6ES7 321-1CH20-0AA0	16	DI	706-2300/304-XXXX	CORD S7-300 T16ESHT1	1	T16ESHT	1					U_{in} = 48 ... 125 VDC
	6ES7 321-1CH80-0AA0	16	DI	706-2300/304-XXXX	CORD S7-300 T16ESHT1	1	T16ESHT	1					U_{in} = 48 ... 125 VDC
	6ES7 321-1EL00-0AA0	32	DI	706-2300/306-XXXX	CORD S7-300 2xT8ESHT	1	T16ESHT	2					U_{in} = 120 VAC
	6ES7 321-1FH00-0AA0	16	DI	706-2300/102-XXXX	CORD S7-300 T16EHT	1	T16ESHT	1					U_{in} = 120/230 VAC
	6ES7 321-7BH01-0AB0	16	DI	706-2300/101-XXXX	CORD S7-300 T16E	1	T16ES	1					
	6ES7 321-7BH80-0AA0	16	DI	706-2300/101-XXXX	CORD S7-300 T16E	1	T16ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
- 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-2300/300-200

PLC SIEMENS S7-300

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DO	6ES7 322-1BF01-0AA0	8	DO	706-2300/201-XXXX	CORD S7-300 T8S	1	T8ES	1			T8S	1	U_{out} = 24 VDC
	6ES7 322-1BH01-0AA0	16	DO	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1			T16S	1	
	6ES7 322-1BH10-0AA0	16	DO	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1			T16S	1	
	6ES7 322-1BH80-0AA0	16	DO	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1			T16S	1	
	6ES7 322-1BL00-0AA0	32	DO	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	2			T16S	2	
	6ES7 322-1BP00-0AA0	64	DO	706-2300/200-XXXX	CORD S7-300 2xT16S	2	T16ES	4			T16S	4	
	6ES7 322-1EH01-0AA0	16	D0	706-2300/300-XXXX	CORD S7-300 T16ES	1	T16ES	1			T16S	1	
	6ES7 322-1FL00-0AA0	32	DO	706-2300/304-XXXX	CORD S7-300 T16ESHT1	2	T16ESHT	2					U_{out} = 120/230 VAC
	6ES7 322-1FH00-0AA0	16	DO	706-2300/304-XXXX	CORD S7-300 T16ESHT1	1	T16ESHT	1					U_{out} = 120/230 VAC
	6ES7 322-1HF10-0AA0	8	DO	706-2300/205-XXXX	CORD S7-300 T8SHT2	1	T16ESHT	1					U_{out} = 230 VAC
	6ES7 322-1HH01-0AA0	16	DO	706-2300/202-XXXX	CORD S7-300 T16SHT	1	T16ESHT	1					U_{out} = 120/230 VAC
	6ES7 322-5GH00-0AB0	16	DO	706-2300/306-XXXX	CORD S7-300 2xT8ESHT	1	T16ESHT	2					U_{out} = 24/48 VAC/DC
	6ES7 322-8BF00-0AB0	8	DO	706-2300/201-XXXX	CORD S7-300 T8S	1	T8ES	1			T8S	1	
	6ES7 322-8BH01/8BH10-0AB0	16	DO	706-2300/209-XXXX	CORD S7-300 T16S	1	T16ES	1			T16S	1	
DI/DO	6ES7 323-1BH01-0AA0	8	DI	706-2300/302-XXXX	CORD S7-300 T8ET8S	1	T8ES	1					
		8	DO								T8S	1	
	6ES7 323-1BL00-0AA0	16	DI	706-2300/301-XXXX	CORD S7-300 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
	6ES7 327-1BH00-0AB0	8	DI	706-2300/302-XXXX	CORD S7-300 T8ET8S	1	T8ES	1					
		8	DO								T8S	1	
AI	6ES7 331-1KF02-0AB0	8	AI	706-2300/402-XXXX	CORD S7-300 A8EI	1	A8ES	1					Current
	6ES7 331-1KF02-0AB0	8	AI	706-2300/403-XXXX	CORD S7-300 A8EU	1	A8ES	1					Voltage
	6ES7 331-7HF01-0AB0	8	AI	706-2300/400-XXXX	CORD S7-300 A8E	1	A8ES	1					
	6ES7 331-7KB02-0AB0	2	AI	706-2300/401-XXXX	CORD S7-300 A2E	1	A4ES	1					
	6ES7 331-7KB81-0AB0	2	AI	706-2300/401-XXXX	CORD S7-300 A2E	1	A4ES	1					
	6ES7 331-7KF02-0AB0	8	AI	706-2300/400-XXXX	CORD S7-300 A8E	1	A8ES	1					
	6ES7 331-7NF00-0AB0	8	AI	706-2300/404-XXXX	CORD S7-300 A8EI1	1	A8ES	1					Current
	6ES7 331-7NF00-0AB0	8	AI	706-2300/405-XXXX	CORD S7-300 A8EU1	1	A8ES	1					Voltage
	6ES7 331-7NF10-0AB0	8	AI	706-2300/406-XXXX	CORD S7-300 A8EI2	1	A8ES	1					Current
	6ES7 331-7NF10-0AB0	8	AI	706-2300/407-XXXX	CORD S7-300 A8EU2	1	A8ES	1					Voltage
	6ES7 331-7PF01-0AB0	8	AI	706-2300/408-XXXX	CORD S7-300 2xA4E	1	A8ES	2					
	6ES7 331-7RD00-0AB0	4	AI	706-2300/409-XXXX	CORD S7-300 A4EP	1	A4ES	1					Passive sensor
	6ES7 331-7RD00-0AB0	4	AI	706-2300/410-XXXX	CORD S7-300 A4EA	1	A4ES	1					Active sensor
	6ES7 331-7SF00-0AB0	8	AI	706-2300/400-XXXX	CORD S7-300 A8E	1	A8ES	1					No thermocouple
	6ES7 331-7TF00-0AB0	8	AI	706-2300/400-XXXX	CORD S7-300 A8E	1	A8ES	1					
AO	6ES7 332-5HB01-0AB0	2	AO	706-2300/500-XXXX	CORD S7-300 A4SI	1	A4ES	1					Current
	6ES7 332-5HB01-0AB0	2	AO	706-2300/501-XXXX	CORD S7-300 A4SU	1	A4ES	1					Voltage
	6ES7 332-5HB81-0AB0	2	AO	706-2300/500-XXXX	CORD S7-300 A4SI	1	A4ES	1					Current
	6ES7 332-5HB81-0AB0	2	AO	706-2300/501-XXXX	CORD S7-300 A4SU	1	A4ES	1					Voltage
	6ES7 332-5HD01-0AB0	4	AO	706-2300/500-XXXX	CORD S7-300 A4SI	1	A4ES	1					Current
	6ES7 332-5HD01-0AB0	4	AO	706-2300/501-XXXX	CORD S7-300 A4SU	1	A4ES	1					Voltage
	6ES7 332-5HF00-0AB0	8	AO	706-2300/502-XXXX	CORD S7-300 A8SI	1	A8ES	1					Current
	6ES7 332-5HF00-0AB0	8	AO	706-2300/503-XXXX	CORD S7-300 A8SU	1	A8ES	1					Voltage
	6ES7 332-7ND02-0AB0	4	AO	706-2300/500-XXXX	CORD S7-300 A4SI	1	A4ES	1					Current
	6ES7 332-7ND02-0AB0	4	AO	706-2300/501-XXXX	CORD S7-300 A4SU	1	A4ES	1					Voltage
	6ES7 332-8TF01-0AB0	8	AO	706-2300/400-XXXX	CORD S7-300 A8E	1	A8ES	1					
AI/AO	6ES7 334-0CE01-0AA0	4	AI+ 2AO	706-2300/601-XXXX	CORD S7-300 A6ESI	1	A8ES	1					Current
	6ES7 334-0CE01-0AA0	4	AI+ 2AO	706-2300/602-XXXX	CORD S7-300 A6ESU	1	A8ES	1					Voltage
SAFETY	6ES7 326-2BF01-0AB0	10	DO	706-2300/207-XXXX	CORD S7-300 2xT5S	1	T8ES	2			T8S	2	
	6ES7 326-2BF10-0AB0	10	DO	706-2300/207-XXXX	CORD S7-300 2xT5S	1	T8ES	2			T8S	2	
	6ES7 326-1BK01-0AB0	24	DI	706-2300/104-XXXX	CORD S7-300 2xT12E	1	T16ES	2					
	6ES7 326-1RF00-0AB0	8	DI	706-2300/105-XXXX	CORD S7-300 T8E	1	T16ES	1					
	6ES7 336-4GE01-0AB0	6	AI	706-2300/411-XXXX	CORD S7-300 A6E	1	A8ES	1					Active sensor
	6ES7 336-4GE01-0AB0	6	AI	706-2300/413-XXXX	CORD S7-300 A6EP	1	A8ES	1					Passive sensor

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

S7-400
S7-1500
GEFANUC
ALSPA

PLC SIEMENS S7-400

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	6ES7 421-1BL01-0AA0	32	DI	706-2400/300-XXXX	CORD S7-400 2xT16ES	1	T16ES	2	T16EO	2			
	6ES7 421-7BH01-0AB0	16	DI	706-2400/100-XXXX	CORD S7-400 2xT8E	1	T16ES	2					
DO	6ES7 422-1BL00-0AA0	32	DO	706-2400/300-XXXX	CORD S7-400 2xT16ES	1	T16ES	2			T16S	2	
	6ES7 422-1FF00-0AA0	8	DO	706-2400/201-XXXX	CORD S7-400 T8SHT	1	T8ESHT	1					U_{out} = 120/230 VAC
	6ES7 422-1HH00-0AA0	16	DO	706-2400/202-XXXX	CORD S7-400 2xT8SHT	1	T16ESHT	2					U_{out} = 30/230 VAC/DC
	6ES7 422-7BL00-0AB0	32	DO	706-2400/300-XXXX	CORD S7-400 2xT16ES	1	T16ES	2					
AI	6ES7 431-1KF00-0AB0	8I	AI	706-2400/404-XXXX	CORD S7-400 A8EI	1	A8ES	1					Current
	6ES7 431-1KF00-0AB0	8	AI	706-2400/405-XXXX	CORD S7-400 A8EU	1	A8ES	1					Voltage
	6ES7 431-1KF10-0AB0	8	AI	706-2400/401-XXXX	CORD S7-400 A8E	1	A8ES	1					
	6ES7 431-1KF20-0AB0	8	AI	706-2400/401-XXXX	CORD S7-400 A8E	1	A8ES	1					
	6ES7 431-7KF00-0AB0	8	AI	706-2400/402-XXXX	CORD S7-400 A8EI1	1	A8ES	1					Current
	6ES7 431-7KF00-0AB0	8	AI	706-2400/403-XXXX	CORD S7-400 A8EU1	1	A8ES	1					Voltage
AO	6ES7 432-1HF00-0AB0	8	AO	706-2400/500-XXXX	CORD S7-400 A8SI	1	A8ES	1					Current
	6ES7 432-1HF00-0AB0	8	AO	706-2400/501-XXXX	CORD S7-400 A8SU	1	A8ES	1					Voltage

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC SIEMENS S7-1500

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
CPU	6ES7 511-1CK00-0AB0	16 16 5	DI DO AI/2 AO	706-2500/305-XXXX 706-2500/600-XXXX	CORD S7-1500 2xT16ES CORD S7-1500 A7UI	1 1	T16ES A8TSX	1 1	T16EO	1	T16S	1	
	6ES7 512-1CK00-0AB0	32 32 5	DI DO AI/2 AO	706-2500/305-XXXX 706-2500/305-XXXX 706-2500/600-XXXX	CORD S7-1500 2xT16ES CORD S7-1500 2xT16ES CORD S7-1500 A7UI	1 1 1	T16ES A8TSX	2 1	T16EO	2	T16S	2	
DI	6ES7 521-1BH00-0AA0	16	DI	706-2500/300-XXXX	CORD S7-1500 T16ES	1	T16ES	1	T16EO	1			
	6ES7 521-1BH10-0AA0	16	DI	706-2500/304-XXXX	CORD S7-1500 T16ES	1	T16ES	1	T16EO	1			
	6ES7 521-1BH50-0AA0	16	DI	706-2500/300-XXXX	CORD S7-1500 T16ES	1	704-2224	1					Negative log.
	6ES7 521-1BL00-0AB0	32	DI	706-2500/301-XXXX	CORD S7-1500 2xT16ES	1	T16ES	2	T16EO	2			
	6ES7 521-1BL10-0AA0	32	DI	706-2500/303-XXXX	CORD-S7-1500 2xT16ES	1	T16ES	2	T16EO	2			
	6ES7 521-1FH00-0AA0	16	DI	706-2500/102-XXXX	CORD S7-1500 T16ESHT	1	T16ESHT	1					U_{in} = 120/230 VAC
	6ES7 521-7EH00-0AB0	16	DI	706-2500/302-XXXX	CORD S7-1500 T16ESHT	1	T16ESHT	1					U_{in} = 24/125 VAC
DO	6ES7 522-1BF00-0AB0	8	DO	706-2500/201-XXXX	CORD S7-1500 T8S	1	T8ES	1			T8S	1	
	6ES7 522-1BH00-0AB0	16	DO	706-2500/300-XXXX	CORD S7-1500 T16ES	1	T16ES	1			T16S	1	
	6ES7 522-1BH01-0AB0	16	DO	706-2500/300-XXXX	CORD S7-1500 T16ES	1	T16ES	1			T16S	1	
	6ES7 522-1BH10-0AA0	16	DO	706-2500/304-XXXX	CORD S7-1500 T16ES	1	T16ES	1			T16S	1	
	6ES7 522-1BL00-0AB0	32	DO	706-2500/301-XXXX	CORD S7-1500 2xT16ES	1	T16ES	2			T16S	2	
	6ES7 522-1BL01-0AB0	32	DO	706-2500/301-XXXX	CORD S7 1500 2xT16ES	1	T16ES	2			T16S	2	
	6ES7 522-1BL10-0AA0	32	DO	706-2500/303-XXXX	CORD S7-1500 2xT16ES	1	T16ES	2			T16S	2	
	6ES7 522-5EH00-0AB0	16	DO	706-2500/302-XXXX	CORD S7-1500 T16ESHT	1	T16ESHT	1					U_{out} = 24/125 VDC or 24/48 VAC
	6ES7 522-5FF00-0AB0	8	DO	706-2500/204-XXXX	CORD S7-1500 T8SHT	1	T16ESHT	1					U_{out} = 120/230 VAC
	6ES7 522-5FH00-0AB0	16	DO	706-2500/202-XXXX	CORD S7-1500 T16SHT	1	T16ESHT	1					U_{out} = 230 VAC
	6ES7 522-5HF00-0AB0	8	DO	706-2500/204-XXXX	CORD S7-1500 T8SHT	1	T16ESHT	1					I_{max}/ch. = 3A and I_{max} api = 8A
	6ES7 522-5HH00-0AB0	16	DO	706-2500/202-XXXX	CORD S7-1500 2xT16SHT	1	T16ESHT	1					U_{out} = 230 VAC
DI/DO	6ES7 523-1BL00-0AA0	16 16	DI DO	706-2500/303-XXXX	CORD S7-1500 2xT16ES	1	T16ES	1	T16EO	1	T16S	1	
AI	6ES7 531-7NF10-0AB0	8	AI	706-2500/400-XXXX	CORD S7-1500 A8EI	1	A8ES	1					Current
	6ES7 531-7NF10-0AB0	8	AI	706-2500/401-XXXX	CORD S7-1500 A8EU	1	A8ES	1					Voltage
	6ES7 531-7NF00-0AB0	8	AI	706-2500/400-XXXX	CORD S7-1500 A8EI	1	A8ES	1					Current
	6ES7 531-7NF00-0AB0	8	AI	706-2500/401-XXXX	CORD S7-1500 A8EU	1	A8ES	1					Voltage
	6ES7 531-7KF00-0AB0	8	AI	706-2500/400-XXXX	CORD S7-1500 A8EI	1	A8ES	1					Current
	6ES7 531-7KF00-0AB0	8	AI	706-2500/401-XXXX	CORD S7-1500 A8EU	1	A8ES	1					Voltage
	6ES7 531-7KF00-0AB0	8	AI	706-2500/405-XXXX	CORD S7-1500 A8EIMC	1	A8ES	1					Common-mode current
	6ES7 531-7QD00-0AB0	4	AI	706-2500/402-XXXX	CORD S7-1500 A4EI	1	A4ES	1					Current
	6ES7 531-7QD00-0AB0	4	AI	706-2500/403-XXXX	CORD S7-1500 A4EU	1	A4ES	1					Voltage
AO	6ES7 532-5HD00-0AB0	4	AO	706-2500/500-XXXX	CORD S7-1500 A4SI	1	A4ES	1					Current
	6ES7 532-5HD00-0AB0	4	AO	706-2500/501-XXXX	CORD S7-1500 A4SU	1	A4ES	1					Voltage
	6ES7 532-5HF00-0AB0	8	AO	706-2500/502-XXXX	CORD S7-1500 A8SI	1	A8ES	1					Current
	6ES7 532-5HF00-0AB0	8	AO	706-2500/503-XXXX	CORD S7-1500 A8SU	1	A8ES	1					Voltage
	6ES7 532-5ND00-0AB0	4	AO	706-2500/500-XXXX	CORD S7-1500 A4SI	1	A4ES	1					Current
	6ES7 532-5ND00-0AB0	4	AO	706-2500/501-XXXX	CORD S7-1500 A4SU	1	A4ES	1					Voltage
AI/AO	6ES7 534-7QE00-0AB0	4 AI + 2 AO		706-2500/601-XXXX	CORD S7-1500 A6UI1	1	A8ES	1					Current (2 wires)
	6ES7 534-7QE00-0AB0	4 AI + 2 AO		706-2500/602-XXXX	CORD S7-1500 A6UI2	1	A8ES	1					Current (4 wires)
	6ES7 534-7QE00-0AB0	4 AI + 2 AO		706-2500/603-XXXX	CORD S7-1500 A6U	1	A8ES	1					Voltage
SAFETY	6ES7 526-1BH00-0AB0	16	DI	706-2500/103-XXXX	CORD S7-1500 T16E	1	T16ES	1					24 V, external ground (L+)
	6ES7 526-2BF00-0AB0	8	DO	706-2500/205-XXXX	CORD S7-1500 T8S	1	T16ES	1					0 V, external ground (M-)

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

S7-400
S7-1500
GEFANUC
ALSPA

PLC GE FANUC 90-30 / ALSPA 80-35

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	IC693 MDL230	8	DI	706-5030/301-XXXX	CORD GEF-9030 2xT8ESHT	1	T8ESHT	2					U_{in} = 120 VAC
	IC693 MDL231	8	DI	706-5030/301-XXXX	CORD GEF-9030 2xT8ESHT	1	T8ESHT	2					U_{in} = 240 VAC
	IC693 MDL240	16	DI	706-5030/100-XXXX	CORD GEF-9030 T16EHT	1	T16ESHT	1					
	IC693 MDL241	16	DI	706-5030/101-XXXX	CORD GEF-9030 T16E	1	T16ES	1	T16EO	1			24 VDC (com -)
	IC693 MDL632	8	DI	706-5030/302-XXXX	CORD GEF-9030 T8ESHT	1	T8ESHT	1					U_{in} = 125 VDC
	IC693 MDL634	8	DI	706-5030/303-XXXX	CORD GEF-9030 T8ES	1	T8ES	1					
	IC693 MDL640	16	DI	706-5030/101-XXXX	CORD GEF-9030 T16E	1	T16ES	1	T16EO	1			24 VDC (com -)
	IC693 MDL643	16	DI	706-5030/101-XXXX	CORD GEF-9030 T16E	1	T16ES	1	T16EO	1			24 VDC (com -)
	IC693 MDL645	16	DI	706-5030/101-XXXX	CORD GEF-9030 T16E	1	T16ES	1	T16EO	1			24 VDC (com -)
	IC693 MDL646	16	DI	706-5030/101-XXXX	CORD GEF-9030 T16E	1	T16ES	1	T16EO	1			24 VDC (com -)
	IC693 MDL655	32	DI	706-5030/300-XXXX	CORD GEF-9030 T16ES	2	T16ES	2	T16EO	2			
DO	IC693 MDL310	12	DO	706-5030/200-XXXX	CORD GEF-9030 T16SHT	1	T16ESHT	1					
	IC693 MDL330	8	DO	706-5030/302-XXXX	CORD GEF-9030 T8ESHT	1	T8ESHT	1					U_{out} = 240 VAC
	IC693 MDL340	16	DO	706-5030/200-XXXX	CORD GEF-9030 T16SHT	1	T16ESHT	1					
	IC693 MDL390	5	DO	706-5030/203-XXXX	CORD GEF-9030 T5SHT	1	T16ESHT	1					
	IC693 MDL730	8	DO	706-5030/201-XXXX	CORD GEF-9030 T8S	1	T8ES	1			T8S	1	U_{out} = 24 VDC
	IC693 MDL732	8	DO	706-5030/303-XXXX	CORD GEF-9030 T8ES	1	T8ES	1			T8S	1	
	IC693 MDL734	6	DO	706-5030/204-XXXX	CORD GEF-9030 T6SHT	1	T16ESHT	1					U_{out} = 125 VDC
	IC693 MDL740	16	DO	706-5030/202-XXXX	CORD GEF-9030 T16S	1	T16ES	1			T16S	1	U_{out} = 24 VDC
	IC693 MDL742	16	DO	706-5030/202-XXXX	CORD GEF-9030 T16S	1	T16ES	1			T16S	1	U_{out} = 24 VDC
	IC693 MDL753	32	DO	706-5030/300-XXXX	CORD GEF-9030 T16ES	2	T16ES	2			T16S	2	
	IC693 MDL930	8	DO	706-5030/301-XXXX	CORD GEF-9030 2xT8ESHT	1	T8ESHT	2					
DI/DO	IC693 MAR590	8	DI	706-5030/301-XXXX	CORD GEF-9030 2xT8ESHT	1	T8ESHT	1					U_{out} = 120 VAC
		8	DO				T8ESHT	1					
	IC693 MDR390	8	DI	706-5030/301-XXXX	CORD GEF-9030 2xT8ESHT	1	T8ESHT	1					
		8	DO				T8ESHT	1					
AI	IC693 ALG220	4	AI	706-5030/400-XXXX	CORD GEF-9030 A4E	1	A4ES	1					
	IC693 ALG221	4	AI	706-5030/400-XXXX	CORD GEF-9030 A4E	1	A4ES	1					
	IC693 ALG222	16	AI	706-5030/402-XXXX	CORD GEF-9030 2xA8E	1	A8ES	2					
	IC693 ALG223	16	AI	706-5030/402-XXXX	CORD GEF-9030 2xA8E	1	A8ES	2					
AO	IC693 ALG392	8	AO	706-5030/500-XXXX	CORD GEF-9030 A8SI	1	A8ES	1					Current
	IC693 ALG392	8	AO	706-5030/501-XXXX	CORD GEF-9030 A8SU	1	A8ES	1					Voltage

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC GE FANUC RX3i

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	IC694 MDL655	32	DI	706-5030/300-XXXX	CORD GEF-9030 T16ES	2	T16ES	2					
DO	IC694 MDL753	32	DO	706-5030/300-XXXX	CORD GEF-9030 T16ES	2	T16ES	2			T16S	2	
AI	IC694 ALG223	8	AI	706-5030/402-XXXX	CORD GEF-9030 A4E	1	A8ES	2					
AO	IC694 ALG392	8	AO	706-5030/500-XXXX	CORD GEF-9030 A8SI	1	A8ES	1					Current
	IC694 ALG392	8	AO	706-5030/501-XXXX	CORD GEF-9030 A8SU	1	A8ES	1					Voltage

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)
Item no. example for a 2 m cable: 706-5030/402-200

M2xx (TM3)
TSX 37
TSX 57
TWIDO

PLC SCHNEIDER MODICON M221, M241, M251 (TM3)

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	TM3 DI8A	8	DI	706-3033/102-XXXX	CORD MODICON TM3 T8EHT	1	T8ESHT	1					U_{in} = 120 VAC
	TM3 DI8(G)	8	DI	706-3033/103-XXXX	CORD MODICON TM3 T8E COM-	1	T8ES	1					Positive log. (com -)
	TM3 DI16(G)	16	DI	706-3033/104-XXXX	CORD MODICON TM3 T16E COM-	1	T16ES	1	T16EO	1			Positive log. (com -)
	TM3 DI16K	16	DI	706-3033/100-XXXX	CORD TWIDO T16E COM-	1	T16ES	1	T16EO	1			Positive log. (com -)
	TM3 DI32K	32	DI	706-3033/100-XXXX	CORD TWIDO T16E COM-	2	T16ES	2	T16EO	2			Positive log. (com -)
DO	TM3 DQ8T(G)	8	DO	706-3033/202-XXXX	CORD MODICON TM3 T8S	1	T8ES	1			T8S	1	
	TM3 DQ16T(G)	16	DO	706-3033/203-XXXX	CORD MODICON TM3 T16S	1	T16ES	1			T16S	1	
	TM3 DQ16TK	16	DO	706-3033/200-XXXX	CORD TWIDO T16S	1	T16ES	1			T16S	1	
	TM3 DQ32TK	32	DO	706-3033/200-XXXX	CORD TWIDO T16S	2	T16ES	2			T16S	2	
AI	TM3 AI2H(G)	2	AI	706-3033/400-XXXX	CORD MODICON TM3 A2E	1	A4ES	1					
	TM3 AI4(G)	4	AI	706-3033/401-XXXX	CORD MODICON TM3 A4E	1	A4ES	1					
	TM3 TI4(G)	4	AI	706-3033/401-XXXX	CORD MODICON TM3 A4E	1	A4ES	1					Voltage/current
	TM3 AI8(G)	8	AI	706-3033/402-XXXX	CORD MODICON TM3 A8E	1	A8ES	1					
	TM3 TI8T(G)	8	AI	706-3033/402-XXXX	CORD MODICON TM3 A8E	1	A8ES	1					Thermocouples and PTC/NTC
AO	TM3 AQ2(G)	2	AO	706-3033/500-XXXX	CORD MODICON TM3 A2S	1	A4ES	1					
	TM3 AQ4(G)	4	AO	706-3033/501-XXXX	CORD MODICON TM3 A4S	1	A4ES	1					
AI/ AO	TM3 AM6(G)	4 AI/2 AO		706-3033/600-XXXX	CORD MODICON TM3 A6ES	1	A8ES	1					
	TM3 TM3(G)	2 AI/1 AO		706-3033/601-XXXX	CORD MODICON TM3 A3ES	1	A4ES	1					Voltage/current

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC SCHNEIDER TSX 37 (Micro)

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	TSX DEZ 12D2K	12	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1					
	TSX DEZ 32D2	32	DI	706-3037/301-XXXX	CORD TSX37 2xT16ES	1	T16ES	2	T16EO	2			
DO	TSX DSZ 04T22	4	DO	706-3037/200-XXXX	CORD TSX37 T8S	1	T8ES	1			T8S	1	U_{out} = 24 VDC
	TSX DSZ 08T2	8	DO	706-3037/200-XXXX	CORD TSX37 T8S	1	T8ES	1			T8S	1	
	TSX DSZ 08T2K	8	DO	706-3037/202-XXXX	CORD TSX37 T8S1	1	T8ES	1			T8S	1	
	TSX DSZ 32T2	32	DO	706-3037/301-XXXX	CORD TSX37 2xT16ES	1	T16ES	2			T16S	2	
DI/DO	TSX DMZ 16DTK	8	DI	706-3037/305-XXXX	CORD TSX37 T8E8S	1	T8ES	1					
		8	DO				T8ES	1			T8S	1	
	TSX DMZ 28DT	16	DI	706-3037/304-XXXX	CORD TSX37 T16E12S	1	T16ES	1	T16EO	1			
		12	DO				T16ES	1			T16S	1	
	TSX DMZ 28DTK	16	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1	T16EO	1			
		12	DO	706-3057/200-XXX	CORD TSX T12S	1	T16ES	1			T16S	1	
	TSX DMZ 64DTK	32	DI	706-3057/300-XXXX	CORD TSX T16ES	4	T16ES	2	T16EO	2			
		32	DO				T16ES	2			T16S	2	
AI	TSX AEZ 801	8	AI	706-3037/401-XXXX	CORD TSX37 A8E	1	A8ES	1					
	TSX AEZ 802	8	AI	706-3037/401-XXXX	CORD TSX37 A8E	1	A8ES	1					
AO	TSX ASZ 200	4	AO	706-3037/500-XXXX	CORD TSX37 A4S	1	A4ES	1					
	TSX ASZ 401	4	AO	706-3037/500-XXXX	CORD TSX37 A4S	1	A4ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

M2xx (TM3)
TSX 37
TSX 57
TWIDO

PLC SCHNEIDER TSX 57 (Premium)

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	TSX DEY 08D2	8	DI	706-3057/301-XXXX	CORD TSX57 T8ES	1	T8ES	1					
DI	TSX DEY 16A2	16	DI	706-3057/100-XXXX	CORD TSX57 T16EHT	1	T16ESHT	1					U_{in} = 24 VAC/DC
DI	TSX DEY 16A3	16	DI	706-3057/100-XXXX	CORD TSX57 T16EHT	1	T16ESHT	1					U_{in} = 48 VAC
DI	TSX DEY 16A4	16	DI	706-3057/100-XXXX	CORD TSX57 T16EHT	1	T16ESHT	1					U_{in} = 110 VAC
DI	TSX DEY 16A5	16	DI	706-3057/100-XXXX	CORD TSX57 T16E	1	T16ESHT	1					U_{in} = 220 VAC
DI	TSX DEY 16D2	16	DI	706-3057/302-XXXX	CORD TSX57 T16ES	1	T16ES	1					
DI	TSX DEY 16D3	16	DI	706-3057/100-XXXX	CORD TSX57 T16EHT	1	T16ESHT	1					U_{in} = 48 VDC
DI	TSX DEY 16FK	16	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1	T16EO	1			
DI	TSX DEY 32D2K	32	DI	706-3057/300-XXXX	CORD TSX T16ES	2	T16ES	2	T16EO	2			
DI	TSX DEY 64D2K	64	DI	706-3057/300-XXXX	CORD TSX T16ES	4	T16ES	4	T16EO	4			
DO	TSX DSY 08R4	8	DO	706-3057/204-XXXX	CORD TSX57 T8SHT2	1	T16ESHT	1					U_{out} = 48...120 VAC/DC
DO	TSX DSY 08R5	8	DO	706-3057/201-XXXX	CORD TSX57 T16SHT	1	T16ESHT	1					U_{out} = 48...240 VAC/DC
DO	TSX DSY 08R5A	8	DO	706-3057/204-XXXX	CORD TSX57 T8SHT2	1	T16ESHT	1					U_{out} = 48...240 VAC/DC
DO	TSX DSY 08S5	8	DO	706-3057/202-XXXX	CORD TSX57 T8SHT	1	T8ESHT	1					U_{out} = 48...240 VAC
DO	TSX DSY 08T2	8	DO	706-3057/301-XXXX	CORD TSX57 T8ES	1	T8ES	1			T8S	1	
DO	TSX DSY 08T22	8	DO	706-3057/203-XXXX	CORD TSX57 T8SHT1	1	T8ESHT	1					U_{out} = 24VDC
DO	TSX DSY 08T31	8	DO	706-3057/203-XXXX	CORD TSX57 T8SHT1	1	T8ESHT	1					U_{out} = 48VDC
DO	TSX DSY 16R5	16	DO	706-3057/201-XXXX	CORD TSX57 T16SHT	1	T16ESHT	1					U_{out} = 48...240 VAC/DC
DO	TSX DSY 16S4	16	DO	706-3057/201-XXXX	CORD TSX57 T16SHT	1	T16ESHT	1					U_{out} = 48...120 VAC
DO	TSX DSY 16S5	16	DO	706-3057/201-XXXX	CORD TSX57 T16SHT	1	T16ESHT	1					U_{out} = 48...240 VAC
DO	TSX DSY 16T2	16	DO	706-3057/302-XXXX	CORD TSX57 T16ES	1	T16ES	1			T16S	1	
DO	TSX DSY 32T2K	32	DO	706-3057/300-XXXX	CORD TSX T16ES	2	T16ES	2			T16S	2	
DO	TSX DSY 64T2K	64	DO	706-3057/300-XXXX	CORD TSX T16ES	4	T16ES	4			T16S	4	
DI/DO	TSX DMY 28FK	16	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1					
DI/DO		12	DO	706-3057/200-XXXX	CORD TSX T12S	1	T16ES	1			T16S	1	
DI/DO	TSX DMY 28RFK	16	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1					
DI/DO		12	DO	706-3057/200-XXXX	CORD TSX T12S	1	T16ES	1			T16S	1	
AI	TSX AEY 414	4	AI	706-3057/601-XXXX	CORD TSX57 A4ES	1	A4ES	1					Analog
AI	TSX AEY 414	4	AI	706-3057/400-XXXX	CORD TSX57 A4ERTD	1	A8ES	1					RTD
AI	TSX AEY 420	4	AI	706-3057/600-XXXX	CORD TSX A8ES	1	A8TSX	1					
AI	TSX AEY 800	8	AI	706-3057/600-XXXX	CORD TSX A8ES	1	A8TSX	1					
AI	TSX AEY 810	8	AI	706-3057/600-XXXX	CORD TSX A8ES	1	A8TSX	1					
AI	TSX AEY 1600	16	AI	706-3057/600-XXXX	CORD TSX A8ES	2	A8TSX	2					
AO	TSX ASY 410	4	AO	706-3057/601-XXXX	CORD TSX57 A4ES	1	A4ES	1					Current
AO	TSX ASY 410	4	AO	706-3057/500-XXXX	CORD TSX57 A4SU	1	A4ES	1					Voltage
AO	TSX ASY 800	8	AO	706-3057/600-XXXX	CORD TSX A8ES	1	A8TSX	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC SCHNEIDER TWIDO

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	TM2 DDI 16DK	16	DI	706-3033/100-XXXX	CORD TWIDO T16E COM-	1	T16ES	1	T16EO	1			Positive log. (com -)
DI	TM2 DDI 32DK	32	DI	706-3033/100-XXXX	CORD TWIDO T16E COM-	2	T16ES	2	T16EO	2			Positive log. (com -)
DO	TM2 DDO 16TK	16	DO	706-3033/200-XXXX	CORD TWIDO T16S	1	T16ES	1			T16S	1	
DO	TM2 DDO 32TK	32	DO	706-3033/200-XXXX	CORD TWIDO T16S	2	T16ES	2			T16S	2	

Please note that the TM2 cards replace the TWD cards. The front cables remain the same.

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-3057/300-200

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M340
M580
QUANTUM

PLC SCHNEIDER M340 ET M580

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	BMX DAI 1602	16	DI	706-3340/300-XXXX	CORD M340 T16ESHT	1	T16ESHT	1					U_{in} = 24 VAC
	BMX DAI 1603	16	DI	706-3340/300-XXXX	CORD M340 T16ESHT	1	T16ESHT	1					U_{in} = 48 VAC
	BMX DAI 1604	16	DI	706-3340/300-XXXX	CORD M340 T16ESHT	1	T16ESHT	1					U_{in} = 100/120 VAC
	BMX DDI 1602	16	DI	706-3340/301-XXXX	CORD M340 T16ES	1	T16ES	1	T16EO	1			
	BMX DDI 1603	16	DI	706-3340/300-XXXX	CORD M340 T16ESHT	1	T16ESHT	1					U_{in} = 48 VDC
	BMX DDI 3202K	32	DI	706-3340/302-XXXX	CORD M340 2xT16ES	1	T16ES	2	T16EO	2			
	BMX DDI 6402K	64	DI	706-3340/302-XXXX	CORD M340 2xT16ES	2	T16ES	4	T16EO	4			
DO	BMX DAO 1605	16	DO	706-3340/200-XXXX	CORD M340 T16SHT	1	T16ESHT	1					U_{out} = 120/240 VAC
	BMX DDO 1602	16	DO	706-3340/301-XXXX	CORD M340 T16ES	1	T16ES	1			T16S	1	
	BMX DDO 3202K	32	DO	706-3340/302-XXXX	CORD M340 2xT16ES	1	T16ES	2			T16S	2	
	BMX DDO 6402K	64	DO	706-3340/302-XXXX	CORD M340 2xT16ES	2	T16ES	4			T16S	4	
	BMX DRA 0805	8	DO	706-3340/300-XXXX	CORD M340 T16ESHT	1	T16ESHT	1					U_{out} = 48 ... 240 VAC/DC
	BMX DRA 1605	16	DO	706-3340/201-XXXX	CORD M340 T16SHT1	1	T16ESHT	1					U_{out} = 12 ... 24 VAC
DI/DO	BMX DDM 16022	8	DI	706-3340/303-XXXX	CORD M340 2xT8ES	1	T8ES	1					
		8	DO								T8S	1	
	BMX DDM 16025	8	DI	706-3340/304-XXXX	CORD M340T8E/T8SHT	1	T8ES	1					
		8	DO				T8ESHT	1					U_{out} = 48 ... 240 VAC/DC
	BMX DDM 3202K	16	DI	706-3340/302-XXXX	CORD M340 2xT16ES	1	T16ES	1	T16EO	1			
		16	DO								T16S	1	
AI	BMX AMI 0410	4	AI	706-3340/400-XXXX	CORD M340 A4EI	1	A4ES	1					Current
	BMX AMI 0410	4	AI	706-3340/401-XXXX	CORD M340 A4EU	1	A4ES	1					Voltage
	BMX ART 0414	4	AI	706-3340/402-XXXX	CORD M340 A4ERTD	1	A8ES	1					RTD
	BMX ART 0814	8	AI	706-3340/402-XXXX	CORD M340 A4ERTD	2	A8ES	2					RTD
	BMX AMI 0800	8	AI	706-3340/403-XXXX	CORD M340 A8EU	1	A8ES	1					Voltage
	BMX AMI 0800	8	AI	706-3340/404-XXXX	CORD M340 A8EI	1	A8ES	1					Current
	BMX AMI 0810	8	AI	706-3340/403-XXXX	CORD M340 A8EU	1	A8ES	1					Voltage
	BMX AMI 0810	8	AI	706-3340/404-XXXX	CORD M340 A8EI	1	A8ES	1					Current
AO	BMX AMM 0600	4	AI+2 AO	706-3340/500-XXXX	CORD M340 A6ESI	1	A8ES	1					Current
	BMX AMM 0600	4	AI+2 AO	706-3340/501-XXXX	CORD M340 A6ESU	1	A8ES	1					Voltage
	BMX AMO 0210	2	AO	706-3340/502-XXXX	CORD M340 A2S	1	A4ES	1					
	BMX AMO 0410	4	AO	706-3340/401-XXXX	CORD M340 A4EU	1	A4ES	1					
	BMX AMO 0802	8	AO	706-3340/504-XXXX	CORD M340 A8S	1	A8ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-3340/301-200

PLC SCHNEIDER QUANTUM

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	140 DAI 340 00	16	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 24 VAC
	140 DAI 353 00	32	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 24 VAC
	140 DAI 440 00	16	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 48 VAC
	140 DAI 453 00	32	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 48 VAC
	140 DAI 540 00	16	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 115 VAC
	140 DAI 543 00	16	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 115 VAC
	140 DAI 553 00	32	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 115 VAC
	140 DAI 740 00	16	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 230 VAC
	140 DAI 753 00	32	DI	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{in} = 230 VAC
	140 DDI 353 00	32	DI	706-3140/301-XXXX	CORD QUANTUM 2xT16ES	1	T16ES	2	T16EO	2			
	140 DDI 364 00	96	DI	706-3057/300-XXXX	CORD TSX T16ES	6	T16ES	6	T16EO	6			
	140 DSI 353 00	32	DI	706-3140/301-XXXX	CORD QUANTUM 2xT16ES	1	T16ES	2	T16EO	2			U_{in} = 20 … 30 VDC
DO	140 DAO 840 00	16	DO	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{out} = 48 … 230 VAC
	140 DAO 840 10	16	DO	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{out} = 48 … 115 VAC
	140 DDO 353 00	32	DO	706-3140/301-XXXX	CORD QUANTUM 2xT16ES	1	T16ES	2			T16S	2	
	140 DDO 353 01	32	DO	706-3140/301-XXXX	CORD QUANTUM 2xT16ES	1	T16ES	2			T16S	2	
	140 DDO 364 00	96	DO	706-3057/300-XXXX	CORD TSX T16ES	6	T16ES	6			T16S	6	
	140 DRA 840 00	16	DO	706-3140/300-XXXX	CORD QUANTUM 2xT16ESHT	1	T16ESHT	2					U_{out} = 20 … 250 VAC/DC
	140 DVO 853 00	32	DO	706-3140/301-XXXX	CORD QUANTUM 2xT16ES	1	T16ES	2			T16S	2	U_{out} = 10 … 30 VDC
DI/DO	140 DDM 390 00	16	DI	706-3140/302-XXXX	CORD QUANTUM T16E8S	1	T16ES	1	T16EO	1			U_{in} = 30 VDC
		8	DO				T8ES	1			T8S	1	U_{out} = 19 … 30 VDC
AI	140 ACI 030 00	8	AI	706-3140/400-XXXX	CORD QUANTUM A8EI	1	A8ES	1					Current
	140 ACI 030 00	8	AI	706-3140/401-XXXX	CORD QUANTUM A8EU	1	A8ES	1					Voltage
	140 ACI 040 00	16	AI	706-3140/402-XXXX	CORD QUANTUM 2xA8E	1	A8ES	2					
	140 ARI 030 10	8	AI	706-3140/402-XXXX	CORD QUANTUM 2xA8E	1	A8ES	2					4 wires
	140 AVI 030 00	8	AI	706-3140/400-XXXX	CORD QUANTUM A8EI	1	A8ES	1					Current
	140 AVI 030 00	8	AI	706-3140/401-XXXX	CORD QUANTUM A8EU	1	A8ES	1					Voltage
AO	140 ACO 020 00	4	AO	706-3140/500-XXXX	CORD QUANTUM A4S	1	A4ES	1					Current
	140 ACO 130 00	8	AO	706-3140/501-XXXX	CORD QUANTUM A8S	1	A8ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-3140/301-200

COMPACT LOGIX
CONTROL LOGIX

PLC ROCKWELL COMPACT LOGIX (1769)

PLC				FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	1769 - IA16	16	DI	706-4769/300-XXXX	CORD Compact Lx T16ESHT	1	T16ESHT	1					U_{in} = 200 ... 240 VAC
	1769 - IM12	12	DI	706-4769/300-XXXX	CORD Compact Lx T16ESHT	1	T16ESHT	1					U_{in} = 100 ... 120 VAC
	1769 - IQ16	16	DI	706-4769/100-XXXX	CORD Compact Lx T16E	1	T16ES	1	T16EO	1			
	1769 - IQ16F	16	DI	706-4769/100-XXXX	CORD Compact Lx T16E	1	T16ES	1	T16EO	1			
	1769 - IQ32	32	DI	706-4769/102-XXXX	CORD Compact Lx 2xT16E	1	T16ES	2	T16EO	2			
	1769 - IQ32T	32	DI	706-4769/101-XXXX	CORD Compact Lx 2xT16ES	1	T16ES	2	T16EO	2			Positive log. (com-)
DO	1769 - OA8	8	DO	706-4769/201-XXXX	CORD Compact Lx T8SHT	1	T8ESHT	1					U_{out} = 100 ... 240 VAC
	1769 - OA16	16	DO	706-4769/200-XXXX	CORD Compact Lx T16SHT	1	T16ESHT	1					U_{out} = 100 ... 240 VAC
	1769 - OB8	8	DO	706-4769/202-XXXX	CORD Compact Lx T8S	1	T8ES	1			T8S	1	
	1769 - OB16	16	DO	706-4769/203-XXXX	CORD Compact Lx T16S	1	T16ES	1			T16S	1	
	1769 - OB16P	16	DO	706-4769/203-XXXX	CORD Compact Lx T16S	1	T16ES	1			T16S	1	
	1769 - OB32	32	DO	706-4769/204-XXXX	CORD Compact Lx 2xT16S	1	T16ES	2			T16S	2	
	1769 - OB32T	32	DO	706-4769/301-XXXX	CORD Compact Lx 2xT16ES	1	T16ES	2			T16S	2	
	1769 - OW8	8	DO	706-4769/201-XXXX	CORD Compact Lx T8SHT	1	T8ESHT	1					U_{out} = 5 ... 265 VAC/DC
	1769 - OW8I	8	DO	706-4769/300-XXXX	CORD Compact Lx T16ESHT	1	T16ESHT	1					U_{out} = 5 ... 265 VAC/DC
	1769 - OW16	16	DO	706-4769/200-XXXX	CORD Compact Lx T16SHT	1	T16ESHT	1					U_{out} = 5 ... 265 VAC/DC
DI/DO	1769 - IQ6XOW4	6	DI	706-4769/0302-XXXX	CORD Compact Lx T6E4SHT	1	T16ESHT	1					U_{out} = 5 ... 265 VAC/DC
		4	DO										
AI	1769 - IF4	4	AI	706-4769/400-XXXX	CORD Compact Lx A4EI	1	A4ES	1					Current
	1769 - IF4	4	AI	706-4769/401-XXXX	CORD Compact Lx A4EU	1	A4ES	1					Voltage
	1769 - IF4I	4	AI	706-4769/402-XXXX	CORD Compact Lx A4EI1	1	A4ES	1					Current
	1769 - IF4I	4	AI	706-4769/403-XXXX	CORD Compact Lx A4EU1	1	A4ES	1					Voltage
	1769 - IF8	8	AI	706-4769/405-XXXX	CORD Compact Lx A4EI	1	A4ES	2					Current
	1769 - IF8	8	AI	706-4769/406-XXXX	CORD Compact Lx A4EU	1	A4ES	2					Voltage
	1769 - IR6	6	AI	706-4769/404-XXXX	CORD Compact Lx A6E RTD	1	A8ES	2					
	1769 - IF4XOF2 (F)	4	AI+ 2 AO	706-4769/600-XXXX	CORD Compact Lx A6ESI	1	A8ES	1					Current
	1769 - IF4XOF2 (F)	4	AI+ 2 AO	706-4769/601-XXXX	CORD Compact Lx A6ESU	1	A8ES	1					Voltage
	1769 - IF16C	16	AI	706-4769/408-XXXX	CORD Compact Lx A16E	1	A8ES	2					
AO	1769 - OF2	2	AO	706-4769/500-XXXX	CORD Compact Lx A2S	1	A4ES	1					
	1769 - OF4	4	AO	706-4769/503-XXXX	CORD Compact Lx A4SI	1	A4ES	1					Current
	1769 - OF4	4	AO	706-4769/504-XXXX	CORD Compact Lx A4SU	1	A4ES	1					Voltage
	1769 - OF4CI	4	AO	706-4769/501-XXXX	CORD Compact Lx A4S	1	A4ES	1					
	1769 - OF4VI	4	AO	706-4769/501-XXXX	CORD Compact Lx A4S	1	A4ES	1					
	1769 - OF8V	8	AO	706-4769/502-XXXX	CORD Compact Lx A8S	1	A8ES	1					
	1769 - OF8C	8	AO	706-4769/502-XXXX	CORD Compact Lx A8S	1	A8ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-4769/302-200

PLC ROCKWELL CONTROL LOGIX (1756)

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	1756 - IA16I	16	DI	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{in} = 120 VAC
	1756 - IB16I	16	DI	706-4756/301-XXXX	CORD Control Lx 2xT16ES	1	T16ES	2					
	1756 - IB16ISOE	16	DI	706-4756/301-XXXX	CORD Control Lx 2xT16ES	1	T16ES	2					U_{in} = 24/48 VDC
	1756 - IB32	32	DI	706-4756/102-XXXX	CORD Control Lx 2xT16E	1	T16ES	2	T16EO	2			
	1756 - IH16I	16	DI	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{in} = 125 VDC
	1756 - IH16ISOE	16	DI	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{in} = 125 VDC
	1756 - IM16I	16	DI	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{in} = 240 VAC
DO	1756 - OA16I	16	DO	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{out} = 120/240 VAC
	1756 - OB16E	16	DO	706-4756/203-XXXX	CORD Control Lx T16S	1	T16ES	1			T16S	1	
	1756 - OB16I	16	DO	706-4756/301-XXXX	CORD Control Lx 2xT16ES	1	T16ES	2					
	1756 - OB16IS	16	DO	706-4756/301-XXXX	CORD Control Lx 2xT16ES	1	T16ES	2					
	1756 - OB32	32	DO	706-4756/207-XXXX	CORD Control Lx 2xT16S	1	T16ES	2			T16S	2	
	1756 - OC8	8	DO	706-4756/202-XXXX	CORD Control Lx T8SHT1	1	T8ESHT	1					U_{out} = 48 VDC
	1756 - OH8I	8	DO	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{out} = 120 VDC
	1756 - OW16I	16	DO	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{out} = 10 ... 265 VAC/DC
	1756 - OX8I	8	DO	706-4756/302-XXXX	CORD Control Lx 2xT16ESHT1	1	T16ESHT	2					U_{out} = 10 ... 265 VAC/DC
AI	1756 - IF6CIS	6	AI	706-4756/411-XXXX	CORD Control Lx A6EP	1	A8ES	1					Passive sensor
	1756 - IF6CIS	6	AI	706-4756/412-XXXX	CORD Control Lx A6EA	1	A8ES	1					Active sensor
	1756 - IF6I	6	AI	706-4756/408-XXXX	CORD Control Lx A6EI	1	A8ES	1					Current
	1756 - IF6I	6	AI	706-4756/409-XXXX	CORD Control Lx A6EU	1	A8ES	1					Voltage
	1756 - IF8	8	AI	706-4756/402-XXXX	CORD Control Lx A8EI	1	A8ES	1					Current
	1756 - IF8	8	AI	706-4756/403-XXXX	CORD Control Lx A8EU	1	A8ES	1					Voltage
	1756 - IF8H	8	AI	706-4756/404-XXXX	CORD Control Lx A8EI1	1	A8ES	1					Current
	1756 - IF8H	8	AI	706-4756/405-XXXX	CORD Control Lx A8EU1	1	A8ES	1					Voltage
	1756 - IF16	16	AI	706-4756/406-XXXX	CORD Control Lx 2xA8EI	1	A8ES	2					Current
	1756 - IF16	16	AI	706-4756/407-XXXX	CORD Control Lx 2xA8EU	1	A8ES	2					Voltage
	1756 - IR6I	16	AI	706-4756/410-XXXX	CORD Control Lx A6E RTD	1	A8ES	2					
AO	1756 - OF4	4	AO	706-4756/500-XXXX	CORD Control Lx A4SI	1	A4ES	1					Current
	1756 - OF4	4	AO	706-4756/501-XXXX	CORD Control Lx A4SU	1	A4ES	1					Voltage
	1756 - OF6CI	6	AO	706-4756/502-XXXX	CORD Control Lx A6S	1	A8ES	1					Z < 550 Ω
	1756 - OF6VI	6	AO	706-4756/502-XXXX	CORD Control Lx A6S	1	A8ES	1					
	1756 - OF8	8	AO	706-4756/503-XXXX	CORD Control Lx A8SI	1	A8ES	1					Current
	1756 - OF8	8	AO	706-4756/504-XXXX	CORD Control Lx A8SU	1	A8ES	1					Voltage
	1756 - OF8H	8	AO	706-4756/503-XXXX	CORD Control Lx A8SI	1	A8ES	1					Current
	1756 - OF8H	8	AO	706-4756/504-XXXX	CORD Control Lx A8SU	1	A8ES	1					Voltage

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-4756/411-200

WAGO 750/753
OMRON

PLC WAGO I/O SYSTEM 753

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	753-430 (x1)	8	DI	706-7753/300-XXXX	CORD Wago-753 T8ES	1	T8ES	1					
	753-430 (x2)	16	DI	706-7753/301-XXXX	CORD Wago-753 T16ES	1	T16ES	1	T16EO	1			
	753-431 (x1)	8	DI	706-7753/300-XXXX	CORD Wago-753 T8ES	1	T8ES	1					
	753-431 (x2)	16	DI	706-7753/301-XXXX	CORD Wago-753 T16ES	1	T16ES	1	T16EO	1			
DO	753-530 (x1)	8	DO	706-7753/300-XXXX	CORD Wago-753 T8ES	1	T8ES	1			T8S	1	
	753-530 (x2)	16	DO	706-7753/301-XXXX	CORD Wago-753 T16ES	1	T16ES	1			T16S	1	
AI	753-453 (x1)	4	AI	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-453 (x2)	8	AI	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-455 (x1)	4	AI	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-455 (x2)	8	AI	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-457 (x1)	4	AI	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-457 (x2)	8	AI	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-459 (x1)	4	AI	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-459 (x2)	8	AI	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
AO	753-553 (x1)	4	AO	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-553 (x2)	8	AO	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-555 (x1)	4	AO	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-555 (x2)	8	AO	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-557 (x1)	4	AO	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-557 (x2)	8	AO	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					
	753-559 (x1)	4	AO	706-7753/602-XXXX	CORD Wago-753 A4ES	1	A4ES	1					
	753-559 (x2)	8	AO	706-7753/601-XXXX	CORD Wago-753 A8ES	1	A8ES	1					

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC WAGO I/O SYSTEM 750

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	750-1400	16	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1	T16EO	1			
DO	750-1500	16	DO	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1			T16S	1	
DI/DO	750-1502	8	DI	706-7753/302-XXXX	CORD Wago-750 HE T8E8S	1	T8ES	1					
		8	DO								T8S	1	
	750-1502	8	DI	706-3057/300-XXXX	CORD TSX T16ES	1	T16ES	1					Interface only 3 wires
		8	DO										

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

PLC OMRON CJ1

	PLC			FRONT CABLES			COMPATIBLE INTERFACES						
	PLC I/O Card			Item No.	Type	Qty	Direct	Qty	Opto	Qty	Relays	Qty	Comments
DI	CJ1W-ID201	8	DI	706-100/310-XXXX	CORD UNIVERSEL T8ES	1	T8ES	1					Positive log. (com-)
	CJ1W-ID211	16	DI	706-100/320-XXXX	CORD UNIVERSEL T16ES	1	T16ES	1					Positive log. (com-)
	CJ1W-ID231	32	DI	706-6001/100-XXXX	CORD CJ1W 2xT16E	1	T16ES	2	T16EO	2			Positive log. (com-)
	CJ1W-ID232	32	DI	706-6001/300-XXXX	CORD CJ1W 2xT16ES	1	T16ES	2	T16EO	2			Positive log. (com-)
	CJ1W-ID261	64	DI	706-6001/100-XXXX	CORD CJ1W 2xT16E	2	T16ES	4	T16EO	4			Positive log. (com-)
	CJ1W-ID262	64	DI	706-6001/300-XXXX	CORD CJ1W 2xT16ES	2	T16ES	4	T16EO	4			Positive log. (com-)
	CJ1W-IDP01	16	DI	706-100/320-XXXX	CORD UNIVERSEL T16ES	1	T16ES	1					Positive log. (com-)
	CJ1W-INT01	16	DI	706-100/320-XXXX	CORD UNIVERSEL T16ES	1	T16ES	1					Positive log. (com-)
DO	CJ1W-OD204	8	DO	706-100/310-XXXX	CORD UNIVERSEL T8ES	1	T8ES	1			T8S	1	
	CJ1W-OD212	16	DO	706-100/320-XXXX	CORD UNIVERSEL T16ES	1	T16ES	1			T16S	1	
	CJ1W-OD232	32	DO	706-6001/300-XXXX	CORD CJ1W 2xT16ES	1	T16ES	2			T16S	2	
	CJ1W-OD262	64	DO	706-6001/300-XXXX	CORD CJ1W 2xT16ES	2	T16ES	4			T16S	4	
DI/DO	CJ1W-MD232	16	DI	706-6001/301-XXXX	CORD CJ1W T16E+T16S	1	T16ES	1					Positive log. (com-)
		16	DO								T16S	1	

When selecting the modules, please always observe their characteristics (max. voltage/current, relay/optocoupler control voltage).

The item number suffix «xxxx» indicates the length of cable in cm.

Standard length examples: L (xxxx)
• 1,00 m (100) / 2,00 m (200) / 3,00 m (300)

Item no. example for a 2 m cable: 706-7753/300-200

WAGO INTERFACE MODULES

Type		Description	Dimensions in mm (W x H x D)	Item No.
DI/DO	T8ES	10-pole; without supply	35 x 48 x 85	289-611
		10-pole; with LED; 3-wire	56 x 63 x 85	704-2003
		10-pole; with LED; 3-wire; channel isolation	56 x 63 x 105	704-2063
	T8ESHT	12-pole (*MCS*); without LED; 2 conductors; up to 250 V		704-3003
	T8S	10-pole; with LED; electrical isolation: 5 A relay	70 x 65 x 105	704-5003
		10-pole; with LED; electrical isolation: 5 A relay; manual operation	75 x 65 x 105	704-5013
		10-pole; with LED; electrical isolation: 5 A relay (2 u)	124 x 50 x 105	704-5063
	T16ES	20-pole; without supply	47 x 62 x 85	289-614
		20-pole; with LED; 1-wire	55 x 50 x 85	704-2004
		20-pole; with LED; 1-wire; channel isolation		704-2014
		20-pole; with LED; 2-wire	85 x 50 x 85	704-2024
		20-pole; with LED; 2-wire; channel fuse		704-2034
		20-pole; with LED; 2-wire; channel isolation	99 x 50 x 85	704-2044
		20-pole; with LED; 3-wire	85 x 63 x 85	704-2054
		20-pole; with LED; 3-wire; channel isolation		704-2064
		20-pole; with LED; 2-wire; 0 V/channel isolation		704-2074
		20-pole; without LED; 2-wire		704-2224
	T16ESHT	2 x 10-pole (*MCS*); without LED; 2-wire; up to 250 V		704-3004
	T16S	20-pole; with LED; electrical isolation: 5 A relay	180 x 50 x 105	704-5004
		20-pole; with LED; electrical isolation: 5 A relay	111 x 65 x 105	704-5024
		20-pole; with LED; electrical isolation: 5 A relay; channel fuse	247 x 55 x 105	704-5034
		20-pole; with LED; electrical isolation: 5 A relay; manual operation	121 x 65 x 105	704-5044
		20-pole; with LED; electrical isolation: 5 A relay; 0 V isolation; channel fuse	240 x 55 x 105	704-5054
		20-pole; with LED; electrical isolation: 5 A relay (2 u)	247 x 50 x 105	704-5064
		20-pole; with LED; electrical isolation: 5 A relay (1 a); 0 V/channel isolation; channel fuse	240 x 55 x 105	704-5074
		20-pole; with LED; electrical isolation: 5 A relay	180 x 50 x 105	704-5204
		20-pole; with LED; electrical isolation: 5 A relay; channel fuse	115 x 50 x 125	704-5234
	T16EO	20-pole; with LED; electrical isolation: 2 A optocoupler	105 x 50 x 134	704-4004
AI/AO	A4ES	15-pole sub-D; 2- and 4-wire	66 x 50 x 105	704-8002
		15-pole sub-D; 2- and 4-wire; isolation		704-8012
	A8ES	25-pole sub-D; 2- and 4-wire	66 x 50 x 105	704-8003
		25-pole sub-D; 2- and 4-wire; isolation	92 x 50 x 105	704-8013
	A8TSX	25-pole sub-D; current and voltage signal	92 x 50 x 105	704-8023

WAGO Interface Cable (Examples)

For Siemens

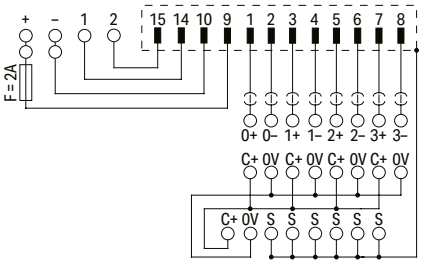
For Rockwell

For WAGO

For Schneider

Cable Length Overview			
Item No.	-XXXX	Length	Example
706-2300/201-XXXX	-100	1 m	706-2300/201-100
	-200	2 m	706-2300/201-200
	-300	3 m	706-2300/201-300
	Additional cable lengths upon request		

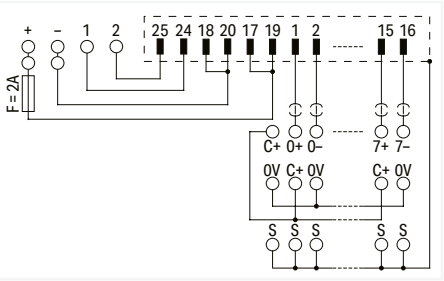
Interface module ▶ 4-channel analog input or output ▶ D-subminiature male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks ▶ PCB terminal blocks (double-row) ▶ 2-wire connection; 4-wire connection



	Item No.	PU
	704-8012	1

Electrical data	
Inputs/outputs	4-channel analog input or output
Circuit type	2-wire connection; 4-wire connection
Operating voltage	≤ 48 VDC
Limiting continuous current	1 A
Internal fuse	Supply: 2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	D-subminiature male connector
Pole number 1	15
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	8
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks (double-row)
Pole number	16
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	66 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail

Interface module ▶ 8-channel analog input or output ▶ D-subminiature male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks ▶ PCB terminal blocks (double-row) ▶ 2-wire connection; 4-wire connection



	Item No.	PU
	704-8013	1

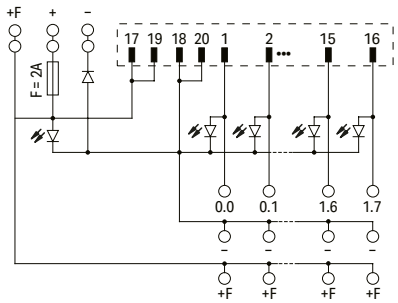
Electrical data	
Inputs/outputs	8-channel analog input or output
Circuit type	2-wire connection; 4-wire connection
Operating voltage	≤ 48 VDC
Limiting continuous current	1 A
Internal fuse	Supply: 2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	D-subminiature male connector
Pole number 1	25
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks (double-row)
Pole number	32
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	92 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail

Interface module ▶ 16-channel digital input ▶ DIN 41651 connector; male connector ▶ with optocoupler ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks (double-deck) ▶ 2-wire connection

	Item No.	PU
	704-4004	1

Electrical data	
Inputs/outputs	16-channel digital input
Circuit type	2-wire connection
Nominal input voltage U_N	24 VAC/VDC
Nominal input current at U_N	14 mA
Peak output current	0.1 A
Switching Voltage, Max.	30 VDC
Internal fuse	2 A
Specialty functions	with optocoupler
Safety and protection/Environmental requirements	
Pollution degree	2
Ambient temperature (operation)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Mating direction	vertical
Connection 2	
Connector	WAGO 736 Series
Design	PCB terminal blocks (double-deck)
Pole number	32
Connection type	Field
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Connector	WAGO 736 Series
Design	PCB terminal blocks (double-deck)
Pole number	4
Connection type	Field
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Connector	WAGO 736 Series
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	105 mm x 50 mm x 134 mm
Mounting type	DIN-35 rail

Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks (double-deck) ▶ 3-wire connection



Item No.	PU
704-2054	1

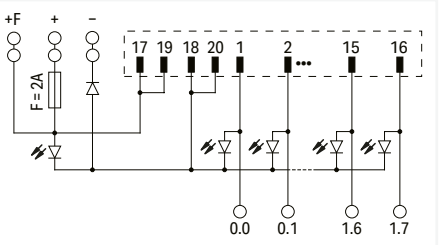
Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	3-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A

Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)

Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	48
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	85 mm x 85 mm x 63 mm
Mounting type	DIN-35 rail

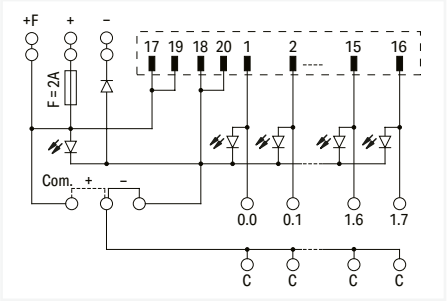
Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks (double-deck)



Item No.	PU
704-2004	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	1-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	16
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	55 mm x 85 mm x 50 mm
Mounting type	DIN-35 rail

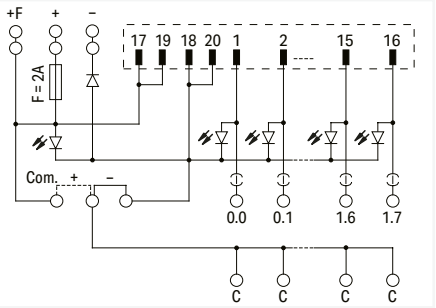
Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks (double-deck)



	Item No.	PU
	704-2024	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	2-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	32
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	85 mm x 85 mm x 50 mm
Mounting type	DIN-35 rail

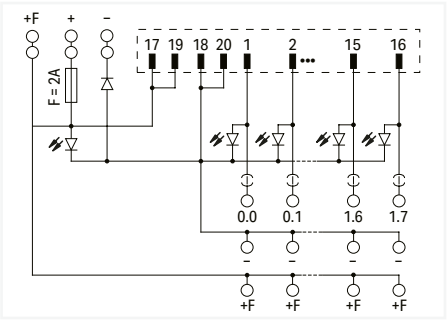
Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks



Item No.	PU
704-2044	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	2-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	99 mm x 85 mm x 50 mm
Mounting type	DIN-35 rail

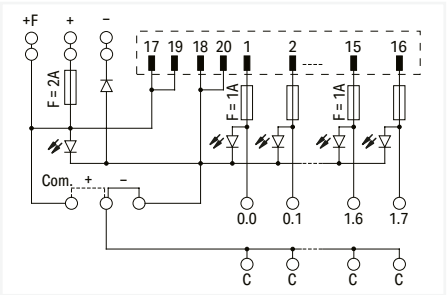
Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks



Item No.	PU
704-2064	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	3-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks (double-row)
Pole number	32
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	85 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail

Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks (double-deck) ▶ 2-wire connection



Item No.	PU
704-2034	1

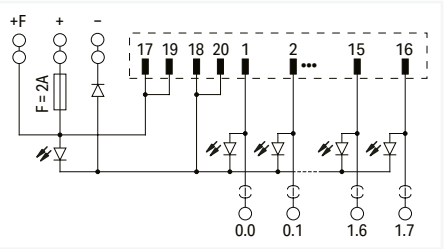
Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	2-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Channel: 1 A

Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)

Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	32
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	120 mm x 85 mm x 50 mm
Mounting type	DIN-35 rail

Interface module ▶ 16-channel digital input or output ▶ DIN 41651 connector; male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks ▶ PCB terminal blocks (double-deck) ▶ 1-wire connection

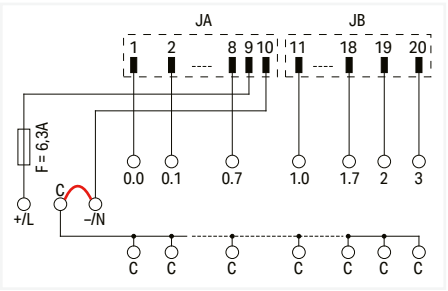


	Item No.	PU
	704-2014	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	1-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	85 mm x 85 mm x 50 mm
Mounting type	DIN-35 rail

Interface module ▶ 16-channel digital input or output ▶ WAGO 231 Series ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks ▶ 2-wire connection

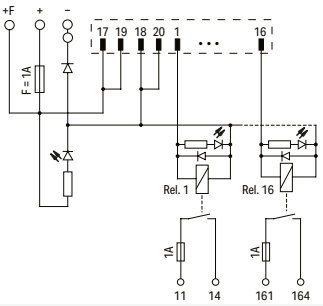
Similar to illustration



Item No.	PU
704-3004	1

Electrical data	
Inputs/outputs	16-channel digital input or output
Circuit type	2-wire connection
Nominal operating voltage	230 VAC
Operating voltage range	±10 %
Total current	8 A
Limiting continuous current	3 A
Internal fuse	6.3 A
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	2 kV
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	WAGO 231 Series
Design	PCB terminal blocks
Pole number 1	20
Connection type	System
WAGO connector	WAGO 232 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	32
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	3
Connection type	Power supply
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	111 mm x 85 mm x 56 mm
Mounting type	DIN-35 rail

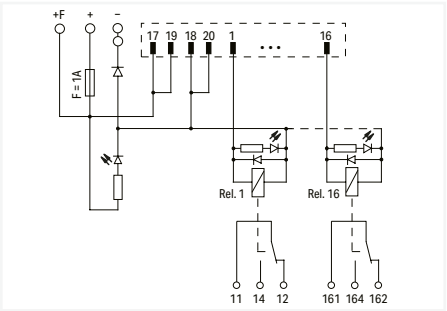
Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ With output fuse ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks



	Item No.	PU
	704-5234	1

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of make/switch-on contacts	1
Limiting continuous current	1 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	10 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
WAGO Basic Relay	857-152
Specialty functions	With output fuse
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	32
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	115 mm x 125 mm x 50 mm
Mounting type	DIN-35 rail
Contact material (relay)	$AgSnO_2$

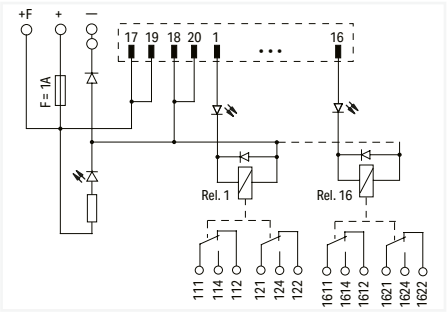
Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks



Item No.	PU
704-5024	1

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	10 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	857-152
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	48
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	111 mm x 105 mm x 65 mm
Mounting type	DIN-35 rail
Contact material (relay)	$AgSnO_2$

Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck)

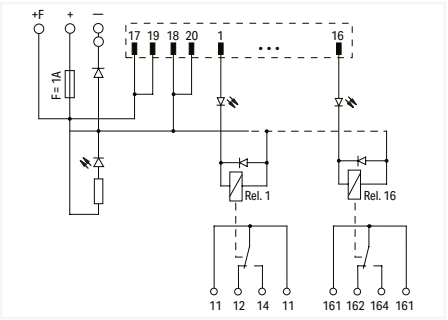


	Item No.	PU
	704-5064	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	2
Limiting continuous current	5 A
Making capacity	2 ms 8 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1000 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	788-156
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	96
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	247 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck)

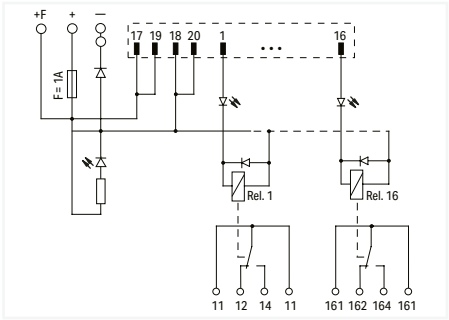


	Item No.	PU
	704-5004	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Making capacity	2 ms 16 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	788-154
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	64
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	180 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ For DC Loads ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks (double-deck)

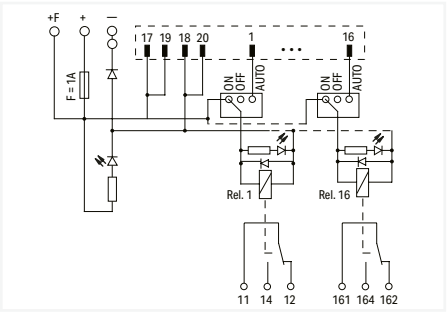


	Item No.	PU
	704-5204	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Making capacity	2 ms 16 A
Switching Voltage, Max.	250 VAC; 150 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	788-156
Specialty functions	For DC Loads
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	64
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	180 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

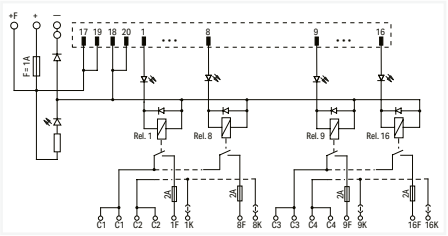
Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ With manual operation ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks



Item No.	PU
704-5044	1

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	10 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	857-152
Specialty functions	With manual operation
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	48
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	121 mm x 105 mm x 65 mm
Mounting type	DIN-35 rail
Contact material (relay)	$AgSnO_2$

Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ With disconnect/test terminal blocks; With output fuse ▶ PCB terminal blocks ▶ PCB terminal blocks (double-deck)

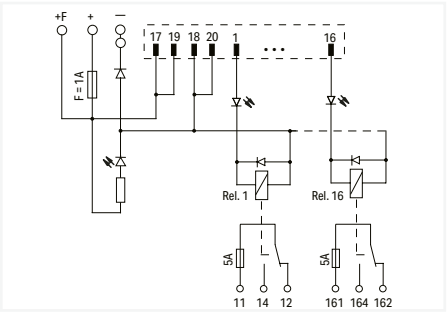


	Item No.	PU
	704-5054	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of make/switch-on contacts	1
Limiting continuous current	2 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 500 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: 2 A
WAGO Basic Relay	788-154
Specialty functions	With disconnect/test terminal blocks; With output fuse
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	32
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	8
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	240 mm x 105 mm x 55 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

Interface module ▶ 16-channel relay output ▶ DIN 41651 connector; male connector ▶ With output fuse ▶ PCB terminal blocks ▶ PCB terminal blocks

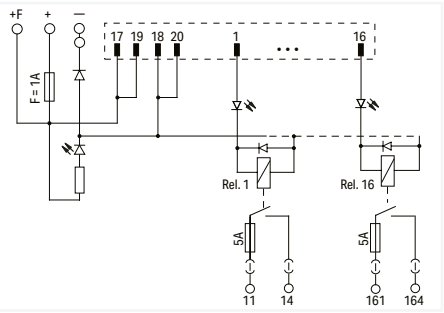


	Item No.	PU
	704-5034	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Making capacity	2 ms 16 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: 5 A
WAGO Basic Relay	788-154
Specialty functions	With output fuse
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	48
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	247 mm x 105 mm x 55 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

Interface module ▸ 16-channel relay output ▸ DIN 41651 connector; male connector ▸ With disconnect/test terminal blocks; With output fuse ▸ PCB terminal blocks ▸ PCB terminal blocks

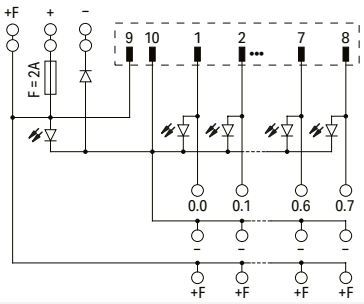


	Item No.	PU
	704-5074	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	16-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of make/switch-on contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: 5 A
WAGO Basic Relay	788-154
Specialty functions	With disconnect/test terminal blocks; With output fuse
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	20
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	32
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	240 mm x 105 mm x 55 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

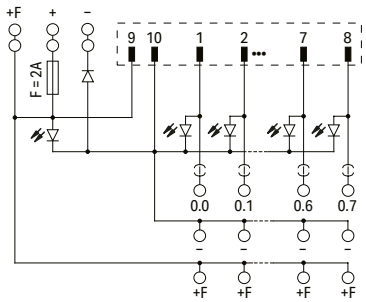
Interface module ▶ 8-channel digital input or output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks (double-deck) ▶ 3-wire connection



Item No.	PU
704-2003	1

Electrical data	
Inputs/outputs	8-channel digital input or output
Circuit type	3-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	10
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	24
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks (double-deck)
Pole number	6
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	56 mm x 85 mm x 63 mm
Mounting type	DIN-35 rail

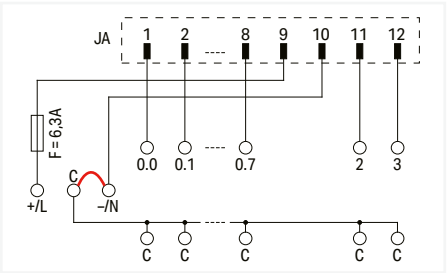
Interface module ▶ 8-channel digital input or output ▶ DIN 41651 connector; male connector ▶ With disconnect/test terminal blocks ▶ PCB terminal blocks ▶ PCB terminal blocks ▶ 3-wire connection



Item No.	PU
704-2063	1

Electrical data	
Inputs/outputs	8-channel digital input or output
Circuit type	3-wire connection
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5 mA
Total current	2 A
Limiting continuous current	1 A
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	2 A
Specialty functions	With disconnect/test terminal blocks
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	10
Connection type	System
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks
Pole number	8
Connection type	Field
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection 3	
Design	PCB terminal blocks
Pole number	16
Connection type	Field
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 4	
Design	PCB terminal blocks (double-deck)
Pole number	24
Connection type	Power supply
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	56 mm x 105 mm x 63 mm
Mounting type	DIN-35 rail

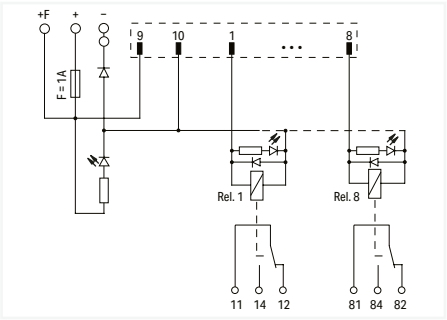
Interface module ▶ 8-channel digital input or output ▶ WAGO 231 Series ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks ▶ 2-wire connection



Item No.	PU
704-3003	1

Electrical data	
Inputs/outputs	8-channel digital input or output
Circuit type	2-wire connection
Nominal operating voltage	230 VAC
Operating voltage range	±10 %
Total current	8 A
Limiting continuous current	3 A
Internal fuse	6.3 A
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	2 kV
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	WAGO 231 Series
Design	PCB terminal blocks
Pole number 1	12
Connection type	System
WAGO connector	WAGO 232 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	20
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	3
Connection type	Power supply
WAGO connector	WAGO 742 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	71 mm x 85 mm x 56 mm
Mounting type	DIN-35 rail

Interface module ▶ 8-channel relay output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks



	Item No.	PU
	704-5003	1

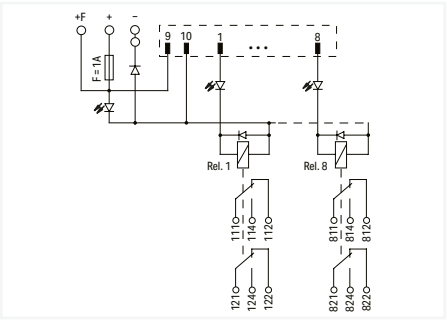
Electrical data	
Inputs/outputs	8-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	10 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	857-152

Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)

Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	10
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	24
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	70 mm x 105 mm x 65 mm
Mounting type	DIN-35 rail
Contact material (relay)	$AgSnO_2$

Interface module ▶ 8-channel relay output ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-deck) ▶ PCB terminal blocks

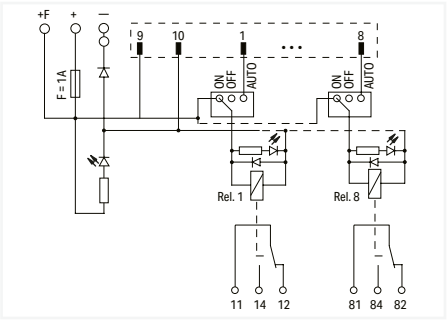


	Item No.	PU
	704-5063	1

Note
Independent of the relay used, the maximum continuous current is 5 A per channel.

Electrical data	
Inputs/outputs	8-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	2
Limiting continuous current	5 A
Making capacity	2 ms 8 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1000 VA; DC 50 W
Mechanical life	30 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	788-156
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-20 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	10
Connection type	System
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Pole number	48
Connection type	Field
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	124 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail
Contact material (relay)	AgNi 90/10

Interface module ▶ 8-channel relay output ▶ DIN 41651 connector; male connector ▶ With manual operation ▶ PCB terminal blocks (triple-deck) ▶ PCB terminal blocks

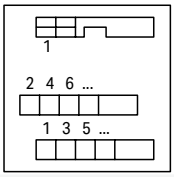


	Item No.	PU
	704-5013	1

Electrical data	
Inputs/outputs	8-channel relay output
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Number of changeover/switchover contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC; 48 VDC
Switching power (resistive) max.	AC 1250 VA; DC 50 W
Mechanical life	10 x 10^6 switching operations
Status indicator	Green LED (channel); Yellow LED (power supply)
Internal fuse	Supply: 1 A; Relay output: -
WAGO Basic Relay	857-152
Specialty functions	With manual operation
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (load/load circuit) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	10
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Pole number	24
Connection type	Field
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Power supply
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	75 mm x 105 mm x 65 mm
Mounting type	DIN-35 rail
Contact material (relay)	$AgSnO_2$

Interface module ▶ PCB with mounting feet ▶ DIN 41651 connector; male connector ▶ PCB terminal blocks (double-row)

Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
10	10	41 mm	289-401	15
14	14	51.5 mm	289-402	15
16	16	56.5 mm	289-403	10
20	20	66.5 mm	289-404	10
26	26	81 mm	289-405	10
34	34	102 mm	289-406	10
40	40	126 mm	289-407	5
50	50	151 mm	289-408	4
64	64	187 mm	289-409	5

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	PCB with mounting feet
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Cover; Type 1; suitable for cover carrier type 1

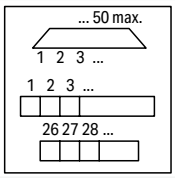
Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Interface module ▶ PCB with mounting feet ▶ D-subminiature female connector ▶ with solder contact ▶ PCB terminal blocks (double-row)

Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-455	40
15	15	53.5 mm	289-456	30
25	25	79 mm	289-457	15
37	37	120 mm	289-458	10
50	50	157 mm	289-459	5

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	1 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	PCB with mounting feet
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

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Accessories

Cover; Type 1; suitable for cover carrier type 1

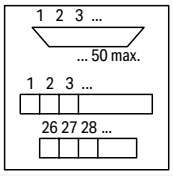
Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Interface module ▶ PCB with mounting feet ▶ D-subminiature male connector ▶ with solder contact ▶ PCB terminal blocks (double-row)

Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-445	25
15	15	53.5 mm	289-446	15
25	25	79 mm	289-447	10
37	37	120 mm	289-448	5
50	50	157 mm	289-449	5

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	1 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP00
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	PCB with mounting feet
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

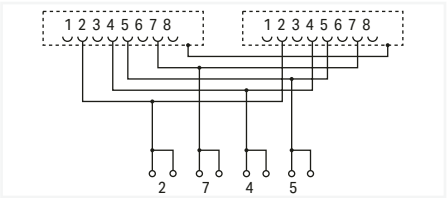
Cover; Type 1; suitable for cover carrier type 1

Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Interface module ▶ Mounting carrier ▶ 2 x RJ-45 (shielded) ▶ Connection Cable RJ-45 cable assembly (recommended: UTP), PCB terminal blocks



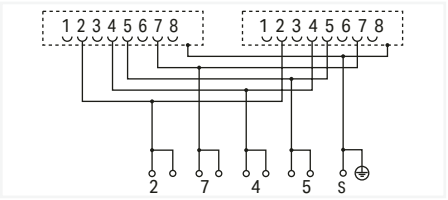
Pole number 1	Pole number	Width	Item No.	PU
8	8	58 mm	289-965	5

Short description:
Compatible on the field side with the 789-620, 789-621 and 789-622 Current Sensors
Required terminal assignment:
2: + Supply
7: - Supply
4: D+
5: D-

Electrical data	
Nominal current	1.5 A
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	0.5 kVrms
Ambient temperature (operation)	-20 … +85 °C
Connection data	
Mating cycles	500
Connection Cable	RJ-45 cable assembly (recommended: UTP)
Connection 1	
Pluggable connector	2 x RJ-45 (shielded)
Pole number 1	8
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Connection 2	
Design	PCB terminal blocks
Pole number	8
Connection type	Clamping units 2, 7
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Clamping units 4, 5
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	58 mm x 85 mm x 45 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Interface module ▶ Mounting carrier ▶ 2 x RJ-45 (shielded) ▶ With shield connection; With shield clamping saddle ▶ Connection Cable Shielded RJ-45 cable assembly (recommended: UTP, STP), PCB terminal blocks

Similar to illustration

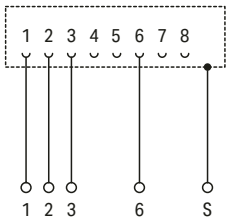


Pole number 1	Pole number	Width	Item No.	PU
8	8	69 mm	289-966	5

Short description:
Compatible on the field side with the 789-620, 789-621 and 789-622 Current Sensors
Required terminal assignment:
2: + Supply
7: - Supply
4: D+
5: D-
Direct shield connection to the DIN-rail via shield grounding foot

Electrical data	
Nominal current	1.5 A
Specialty functions	With shield connection; With shield clamping saddle
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	0.5 kVrms
Ambient temperature (operation)	-20 … +85 °C
Connection data	
Mating cycles	500
Connection Cable	Shielded RJ-45 cable assembly (recommended: UTP, STP)
WAGO shield clamping saddle	27 mm wide; cable diameter up to 24 mm
Connection 1	
Pluggable connector	2 x RJ-45 (shielded)
Pole number 1	8
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Connection 2	
Design	PCB terminal blocks
Pole number	8
Connection type	Clamping units 2, 7
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Connection 3	
Design	PCB terminal blocks
Pole number	4
Connection type	Clamping units 4, 5
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	69 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Interface module ▸ Mounting carrier ▸ RJ-45 (shielded) ▸ With shield connection ▸ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
8	5	24 mm	289-174	10

Electrical data	
Nominal current	1.5 A
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	500
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Design	PCB terminal blocks
Pole number	5
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	24 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

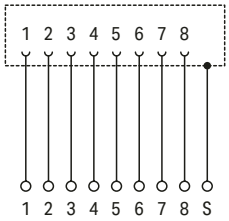
Shield clamping saddles; Width: 11 mm / 0.433 inches

Item No.	PU (SPU)
790-108	50 (10)

Shield clamping saddles; Width: 12.4 mm / 0.488 inches

Item No.	PU
790-208	50

Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ With shield connection ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
8	9	24 mm	289-175	10

Electrical data	
Nominal current	1.5 A
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature UL (operation at U_N)	-40 … +70 °C
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	500
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Design	PCB terminal blocks (double-row)
Pole number	9
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	24 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	DNV

Accessories

Shield clamping saddles; Width: 11 mm / 0.433 inches

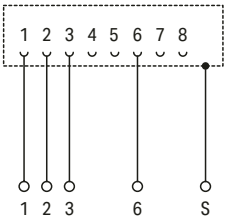
Item No.	PU (SPU)
790-108	50 (10)

Shield clamping saddles; Width: 12.4 mm / 0.488 inches

Item No.	PU
790-208	50

Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ With shield connection; With shield clamping saddle ▶ Connection Cable Cat. 5 (min.)

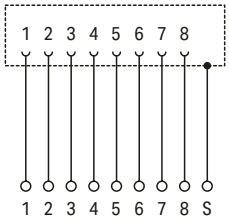
Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
8	5	24 mm	289-174/790-108	10

Electrical data	
Nominal current	1.5 A
Specialty functions	With shield connection; With shield clamping saddle
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	500
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
WAGO shield clamping saddle	11 mm wide; cable diameter up to 8 mm
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Design	PCB terminal blocks
Pole number	5
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	24 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

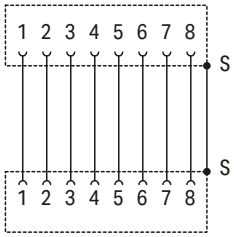
Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ With shield connection; With shield clamping saddle ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
8	9	24 mm	289-175/790-108	10

Electrical data	
Nominal current	1.5 A
Specialty functions	With shield connection; With shield clamping saddle
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature UL (operation at U_N)	-40 … +70 °C
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	500
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
WAGO shield clamping saddle	11 mm wide; cable diameter up to 8 mm
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Design	PCB terminal blocks (double-row)
Pole number	9
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	24 mm x 85 mm x 40 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

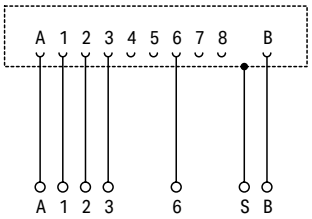
Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ RJ-45 (shielded) ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
8	8	20.5 mm	289-172	15

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 42 VDC
Nominal current	1.5 A
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature UL (operation at U_N)	-40 … +70 °C
Ambient temperature (operation)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	500
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Connector	RJ-45 (shielded)
Pole number	8
Connection type	System
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20.5 mm x 85 mm x 38.5 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

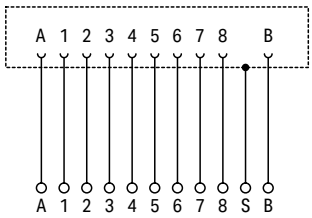
Interface module ▶ Mounting carrier ▶ RJ-45 shielded; with two additional power jumper contacts ▶ With power jumper contacts; With shield connection; With shield clamping saddle ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
10	7	30 mm	289-178	10

Electrical data	
Operating voltage	≤ 35 VAC; ≤ 50 VDC
Nominal current	2.1 A
Specialty functions	With power jumper contacts; With shield connection; With shield clamping saddle
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	1000
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
WAGO shield clamping saddle	11 mm wide; cable diameter up to 8 mm
Connection 1	
Pluggable connector	RJ-45 shielded; with two additional power jumper contacts
Pole number 1	10
Connection type	System
Connection 2	
Design	PCB terminal blocks
Pole number	7
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	30 mm x 85 mm x 67 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	DNV

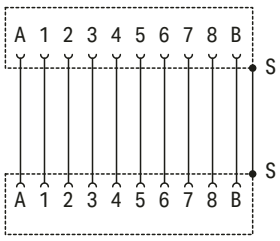
Interface module ▶ Mounting carrier ▶ RJ-45 shielded; with two additional power jumper contacts ▶ With power jumper contacts; With shield connection; With shield clamping saddle ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
10	11	30 mm	289-179	10

Electrical data	
Operating voltage	≤ 35 VAC; ≤ 50 VDC
Nominal current	2.1 A
Specialty functions	With power jumper contacts; With shield connection; With shield clamping saddle
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C (Actuation: -35 … +85 °C)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	1000
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
WAGO shield clamping saddle	11 mm wide; cable diameter up to 8 mm
Connection 1	
Pluggable connector	RJ-45 shielded; with two additional power jumper contacts
Pole number 1	10
Connection type	System
Connection 2	
Design	PCB terminal blocks (double-row)
Pole number	11
Connection type	System
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 1.5 mm² / 0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	30 mm x 85 mm x 67 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

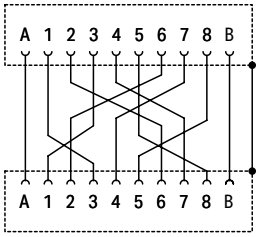
Interface module ▶ Mounting carrier ▶ RJ-45 shielded; with two additional power jumper contacts ▶ RJ-45 shielded; with two additional power jumper contacts ▶ With power jumper contacts ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
10	10	30 mm	289-176	10

Electrical data	
Operating voltage	≤ 35 VAC; ≤ 50 VDC
Nominal current	2.1 A
Specialty functions	With power jumper contacts
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	1000
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
Connection 1	
Pluggable connector	RJ-45 shielded; with two additional power jumper contacts
Pole number 1	10
Connection type	System
Connection 2	
Connector	RJ-45 shielded; with two additional power jumper contacts
Pole number	10
Connection type	System
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	30 mm x 85 mm x 43 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

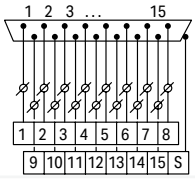
Interface module ▶ Mounting carrier ▶ RJ-45 shielded; with two additional power jumper contacts ▶ RJ-45 shielded; with two additional power jumper contacts ▶ With power jumper contacts; Crossover ▶ Connection Cable Cat. 5 (min.)



Pole number 1	Pole number	Width	Item No.	PU
10	10	30 mm	289-177	15

Electrical data	
Operating voltage	≤ 35 VAC; ≤ 50 VDC
Nominal current	2.1 A
Specialty functions	With power jumper contacts; Crossover
Safety and protection/Environmental requirements	
Dielectric strength (contact/contact) (AC, 1 min)	1 kVrms
Ambient temperature (operation)	-40 … +85 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	≤ 85 % (non-condensing)
Connection data	
Mating cycles	1000
Transmission length (max.)	100 m
Connection Cable	Cat. 5 (min.)
Connection 1	
Pluggable connector	RJ-45 shielded; with two additional power jumper contacts
Pole number 1	10
Connection type	System
Connection 2	
Connector	RJ-45 shielded; with two additional power jumper contacts
Pole number	10
Connection type	System
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	30 mm x 85 mm x 43 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Interface module ▶ Mounting carrier ▶ HD D-sub male connector ▶ with solder contact ▶ With solder pin; With shield connection ▶ PCB terminal blocks (double-deck)



Pole number 1	Pole number	Width	Item No.	PU
9	10	33.5 mm	289-720	8
15	16	43.5 mm	289-721	7

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
One solder terminal per pole is available for testing and patching (except for shield contact).

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With solder pin; With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	HD D-sub male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

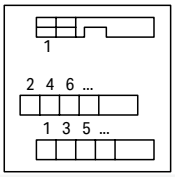
Cover; Type 1; suitable for cover carrier type 1

Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Interface module ▸ Mounting carrier ▸ DIN 41651 connector; male connector



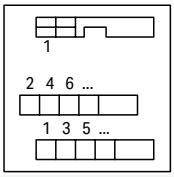
Pole number 1	Pole number	Width	Item No.	PU
40	40	114 mm	289-507	5
64	64	170 mm	289-509	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	0.75 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ DIN 41651 connector; male connector

Similar to illustration



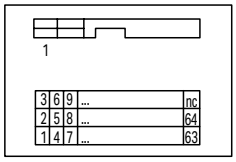
Pole number 1	Pole number	Width	Item No.	PU
64	64	120 mm	289-510	4

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Pole number 1	64
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-row)
Pole number	64
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	120 mm x 85 mm x 36 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▸ Mounting carrier ▸ DIN 41651 connector; male connector

Similar to illustration



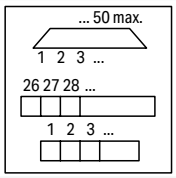
Pole number 1	Pole number	Width	Item No.	PU
20	20	47 mm	289-614	5
26	26	55 mm	289-615	5
34	34	65 mm	289-616	4
40	40	74 mm	289-617	4
50	50	88 mm	289-618	3
64	64	114 mm	289-619	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with solder contact ▶ PCB terminal blocks (double-row)

Similar to illustration

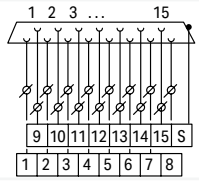


Pole number 1	Pole number	Width	Item No.	PU
50	50	94 mm	289-559	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	0.75 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Pole number 1	50
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Pole number	50
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	94 mm x 85 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with solder contact ▶ With solder pin; With shield connection ▶ PCB terminal blocks (double-deck)



Pole number 1	Pole number	Width	Item No.	PU
9	10	33.5 mm	289-725	8
15	16	43.5 mm	289-726	8
37	38	99.5 mm	289-728	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
One solder terminal per pole is available for testing and patching (except for shield contact).

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With solder pin; With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Cover; Type 1; suitable for cover carrier type 1

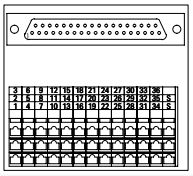
Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with solder contact ▶ With shield connection ▶ PCB terminal blocks (triple-deck)

Similar to illustration

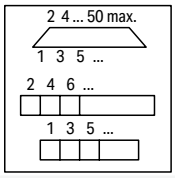


Pole number 1	Pole number	Width	Item No.	PU
25	27	56 mm	289-623	4
37	39	74 mm	289-624	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (triple-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with IDC ▶ PCB terminal blocks (double-row)



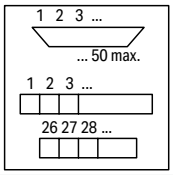
Pole number 1	Pole number	Width	Item No.	PU
50	50	94 mm	289-554	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	0.75 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Pole number 1	50
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with IDC
Connection 2	
Design	PCB terminal blocks (double-row)
Pole number	50
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	94 mm x 85 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with solder contact ▶ PCB terminal blocks (triple-row)

Similar to illustration



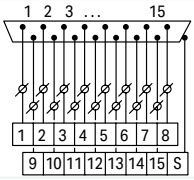
Pole number 1	Pole number	Width	Item No.	PU
50	50	94 mm	289-549	4

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	0.75 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Pole number 1	50
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (triple-row)
Pole number	50
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	94 mm x 85 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with solder contact ▶ With solder pin; With shield connection ▶ PCB terminal blocks (double-deck)

Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
25	26	69 mm	289-722	4
37	38	99.5 mm	289-723	3

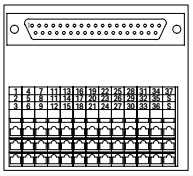
Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
One solder terminal per pole is available for testing and patching (except for shield contact).

Electrical data	
Operating voltage	≤ 30 VAC; ≤ 50 VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With solder pin; With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with solder contact ▶ With shield connection ▶ PCB terminal blocks (triple-deck)

Similar to illustration

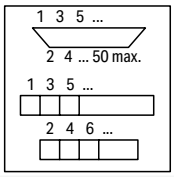


Pole number 1	Pole number	Width	Item No.	PU
25	27	56 mm	289-620	6
37	39	74 mm	289-621	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	1.3 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (triple-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with IDC ▶ PCB terminal blocks (triple-row)



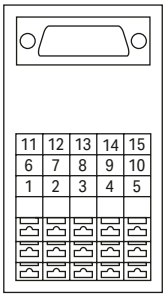
Pole number 1	Pole number	Width	Item No.	PU
50	50	94 mm	289-544	3

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Pollution degree	2
Dielectric strength (channel/channel) (AC, 1 min.)	0.75 kVrms
Protection type	IP00
Insulation type	Functional insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Pole number 1	50
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with IDC
Connection 2	
Design	PCB terminal blocks (triple-row)
Pole number	50
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	94 mm x 85 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ HD D-sub female connector ▶ With shield connection ▶ PCB terminal blocks (triple-deck)

Similar to illustration

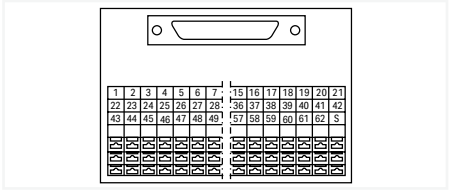


Pole number 1	Pole number	Width	Item No.	PU
15	15	35 mm	289-713	8
44	45	79 mm	289-707	4
62	63	108 mm	289-708	4

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Contact resistance (max.)	15 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	HD D-sub female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ HD D-sub male connector ▶ With shield connection ▶ PCB terminal blocks (triple-deck)

Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
15	15	35 mm	289-714	10
62	64	62 mm	289-710	4

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Contact resistance (max.)	15 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	HD D-sub male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (triple-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ With shield connection

Pole number 1	Pole number	Width	Item No.	PU
8	8	26.8 mm	289-195	1

Electrical data	
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-10 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 95 % (non-condensing)
Connection data	
Mating cycles	750
Connection Cable	Cat. 6 (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Pole number	8
Connection type	System
Connection technology	IDC connection
Strip length	0.8 … 1.6 mm / 0.03 … 0.06 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	26.8 mm x 81.4 mm x 64.4 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni

Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ With shield connection

Pole number 1	Pole number	Width	Item No.	PU
8	8	18 mm	289-197	1

Electrical data	
Contact resistance (max.)	5 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-10 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 95 % (non-condensing)
Connection data	
Mating cycles	750
Connection Cable	Cat. 6A (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Pole number	8
Connection type	System
Connection technology	IDC connection
Strip length	4.5 … 9.6 mm / 0.18 … 0.38 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	18 mm x 90 mm x 59 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	CuSn
Material (plug-in module)	Zinc die casting
Material (DIN-rail adapter)	PC-GF10

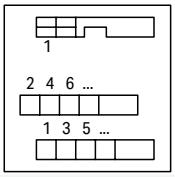
Interface module ▶ Mounting carrier ▶ RJ-45 (shielded) ▶ RJ-45 (shielded) ▶ With shield connection ▶ Connection Cable Cat. 6A (min.)

Pole number 1	Pole number	Width	Item No.	PU
8	8	18 mm	289-198	1

Electrical data	
Contact resistance	200 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-10 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 95 % (non-condensing)
Connection data	
Mating cycles	750
Connection Cable	Cat. 6A (min.)
Connection 1	
Pluggable connector	RJ-45 (shielded)
Pole number 1	8
Connection type	System
Connection 2	
Connector	RJ-45 (shielded)
Pole number	8
Connection type	System
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	18 mm x 90 mm x 59 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Spring steel
Material (plug-in module)	Zinc die casting
Material (DIN-rail adapter)	PC-GF10

Interface module ▸ Mounting carrier ▸ DIN 41651 connector; male connector

Similar to illustration

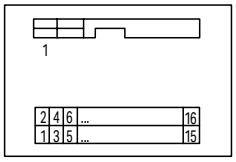


Pole number 1	Pole number	Width	Item No.	PU
10	10	38 mm	289-501	10
14	14	43 mm	289-502	5
16	16	46 mm	289-503	6
20	20	53.5 mm	289-504	10
26	26	71 mm	289-505	5
34	34	94 mm	289-506	5
50	50	132 mm	289-508	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ DIN 41651 connector; male connector

Similar to illustration

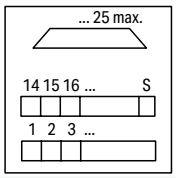


Pole number 1	Pole number	Width	Item No.	PU
10	10	35 mm	289-611	10
14	14	40 mm	289-612	5
16	16	45 mm	289-613	20

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	1 A
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	3 / 50 mating cycles
Connection 1	
Pluggable connector	DIN 41651 connector; male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ With shield connection ▶ PCB terminal blocks (double-deck)

Similar to illustration

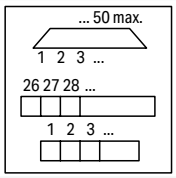


Pole number 1	Pole number	Width	Item No.	PU
9	10	33 mm	289-650	8
25	26	68.5 mm	289-652	4

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
Connection 2	
Design	PCB terminal blocks (double-deck)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with solder contact ▶ PCB terminal blocks (double-row)

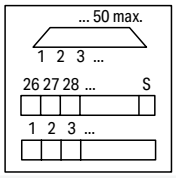
Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-555	8
15	15	46 mm	289-556	8
25	25	72 mm	289-557	4
37	37	102 mm	289-558	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with solder contact ▶ With shield connection ▶ PCB terminal blocks (double-row)

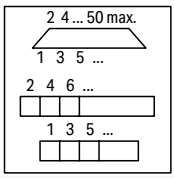


Pole number 1	Pole number	Width	Item No.	PU
9	10	33 mm	289-575	8
15	16	43 mm	289-576	7
25	26	68.5 mm	289-577	4
37	38	99 mm	289-578	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni

Interface module ▶ Mounting carrier ▶ D-subminiature female connector ▶ with IDC ▶ PCB terminal blocks (double-row)

Similar to illustration

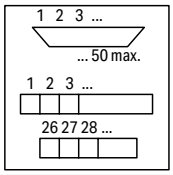


Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-550	8
15	15	46 mm	289-551	8
25	25	72 mm	289-552	4
37	37	102 mm	289-553	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature female connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with IDC
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with solder contact ▶ PCB terminal blocks (double-row)

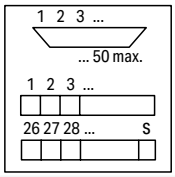
Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-545	8
15	15	46 mm	289-546	6
25	25	72 mm	289-547	4
37	37	102 mm	289-548	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with solder contact ▶ With shield connection ▶ PCB terminal blocks (double-row)

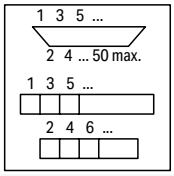


Pole number 1	Pole number	Width	Item No.	PU
9	10	38.5 mm	289-585	8
15	16	46 mm	289-586	7
25	26	71.5 mm	289-587	4
37	38	102 mm	289-588	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Specialty functions	With shield connection
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with solder contact
Connection 2	
Design	PCB terminal blocks (double-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ D-subminiature male connector ▶ with IDC ▶ PCB terminal blocks (triple-row)

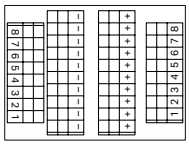
Similar to illustration



Pole number 1	Pole number	Width	Item No.	PU
9	9	38 mm	289-540	8
15	15	46 mm	289-541	8
25	25	72 mm	289-542	4
37	37	102 mm	289-543	3

Electrical data	
Operating voltage	≤ 125 VAC/VDC
Nominal current	2 A
Contact resistance (max.)	30 mΩ
Safety and protection/Environmental requirements	
Rated Voltage	125 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Insulation type	Basic insulation
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m
Connection data	
Performance level	2 / 200 mating cycles
Strain relief	UNC 4-40 stud bolt
Connection 1	
Pluggable connector	D-subminiature male connector
Connection type	System
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating direction	vertical
For mating connector	with IDC
Connection 2	
Design	PCB terminal blocks (triple-row)
Connection type	Field
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Contact material (connector)	Au over Ni
Standards and specifications	
Standards/specifications	EN 61010-2-201

Interface module ▶ Mounting carrier ▶ WAGO 236 Series



Pole number 1	Pole number	Width	Item No.	PU
-	-	56 mm	289-664	5

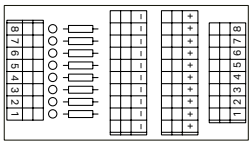
Electrical data	
Inputs/outputs	8-channel digital input
Circuit type	3-wire connection
Operating voltage	≤ 100 VAC; ≤ 125 VDC
Total current	8 A

Safety and protection/Environmental requirements	
Rated Voltage	100 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)

Connection 1	
Pluggable connector	WAGO 236 Series
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	56 mm x 85 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Interface module ▸ Mounting carrier ▸ WAGO 236 Series



Pole number 1	Pole number	Width	Item No.	PU
-	-	56 mm	289-665	5

Electrical data	
Inputs/outputs	8-channel digital input
Circuit type	3-wire connection; High-side switching
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption (status indication)	5.2 mA
Total current	8 A
Status indicator	Red LED

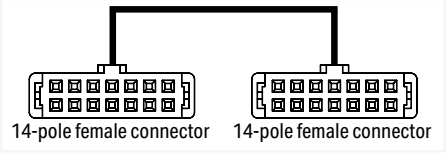
Safety and protection/Environmental requirements	
Rated Voltage	100 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Protection type	IP20
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)

Connection 1	
Pluggable connector	WAGO 236 Series
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	56 mm x 105 mm x 34 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Connecting cable ▶ Pluggable connector per DIN 41651; female connector ▶ Pluggable connector per DIN 41651; female connector

Similar to illustration



Cable length	Item No.	PU
1 m	706-753/300-100	1
2 m	706-753/300-200	1
3 m	706-753/300-300	1

Short description:
WAGO's 14-pole interface cables transmit the signal one-to-one from the 14-pole connector and are available in 1-, 2- and 3-meter lengths.
These cables are suitable for system wiring when paired with 857-981 and 857-982 Interface Adapters.

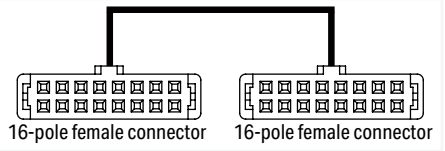
Note
When using more than 10 wires, the maximum current per wire must be reduced to 0.7 A.

Electrical data	
Operating voltage	≤ 35 VDC
Current per wire (max.)	1 A
Connection data	
Cable type	LiYY
Color code	per DIN VDE 47100
Connection 1	
Pluggable connector	Pluggable connector per DIN 41651; female connector
Pole number 1	14
Connection type	System
Wire cross-section	0.14 mm²
Connection 2	
Connector	Pluggable connector per DIN 41651; female connector
Pole number	14
Connection type	System
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C

6

Connecting cable ▶ Pluggable connector per DIN 41651; female connector ▶ Pluggable connector per DIN 41651; female connector

Similar to illustration



Cable length	Item No.	PU
1 m	706-753/301-100	1
2 m	706-753/301-200	1
3 m	706-753/301-300	1

Short description:
WAGO's 16-pole interface cables transmit the signal one-to-one from the 16-pole connector and are available in 1-, 2- and 3-meter lengths. Signal transmission from the 857-980 Interface Adapter is also possible.
These cables are suitable for system wiring when paired with 857-980 Interface Adapter.

Note
When using more than 10 wires, the maximum current per wire must be reduced to 0.7 A.

Electrical data	
Operating voltage	≤ 35 VDC
Current per wire (max.)	1 A
Connection data	
Cable type	LiYY
Color code	per DIN VDE 47100
Connection 1	
Pluggable connector	Pluggable connector per DIN 41651; female connector
Pole number 1	16
Connection type	System
Wire cross-section	0.14 mm²
Connection 2	
Connector	Pluggable connector per DIN 41651; female connector
Pole number	16
Connection type	System
Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C

Universal connection cable ▸ with pluggable connector per DIN 41651
706 Series

Image	Connection Type 1	Pole No. 1	Connection Type 2	Pole No. 2	Cable Type	Operating Voltage	Current per Wire (max.)	Wire Cross-Section	Length	Item No.
Connection cable; Pluggable connector per DIN 41651/open-ended; Female connector										
	Pluggable connector per DIN 41651; Female connector	10	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/310-100
									2 m	706-100/310-200
									3 m	706-100/310-300
	Pluggable connector per DIN 41651; Female connector	14	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/314-100
									2 m	706-100/314-200
									3 m	706-100/314-300
	Pluggable connector per DIN 41651; Female connector	16	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/316-100
									2 m	706-100/316-200
									3 m	706-100/316-300
	Pluggable connector per DIN 41651; Female connector	20	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/320-100
									2 m	706-100/320-200
									3 m	706-100/320-300
	Pluggable connector per DIN 41651; Female connector	26	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/326-100
									2 m	706-100/326-200
									3 m	706-100/326-300
	Pluggable connector per DIN 41651; Female connector	34	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/334-100
									2 m	706-100/334-200
									3 m	706-100/334-300
	Pluggable connector per DIN 41651; Female connector	40	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/340-100
									2 m	706-100/340-200
									3 m	706-100/340-300
	Pluggable connector per DIN 41651; Female connector	50	open-ended	–	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-100/350-100
									2 m	706-100/350-200
									3 m	706-100/350-300
Connection cable; Pluggable connector per DIN 41651/Pluggable connector per DIN 41651; Female connector										
	Pluggable connector per DIN 41651; Female connector	10	Pluggable connector per DIN 41651; Female connector	10	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/310-100
									2 m	706-150/310-200
									3 m	706-150/310-300
	Pluggable connector per DIN 41651; Female connector	14	Pluggable connector per DIN 41651; Female connector	14	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/314-100
									2 m	706-150/314-200
									3 m	706-150/314-300
	Pluggable connector per DIN 41651; Female connector	16	Pluggable connector per DIN 41651; Female connector	16	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/316-100
									2 m	706-150/316-200
									3 m	706-150/316-300
	Pluggable connector per DIN 41651; Female connector	20	Pluggable connector per DIN 41651; Female connector	20	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/320-100
									2 m	706-150/320-200
									3 m	706-150/320-300
	Pluggable connector per DIN 41651; Female connector	26	Pluggable connector per DIN 41651; Female connector	26	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/326-100
									2 m	706-150/326-200
									3 m	706-150/326-300
	Pluggable connector per DIN 41651; Female connector	34	Pluggable connector per DIN 41651; Female connector	34	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/334-100
									2 m	706-150/334-200
									3 m	706-150/334-300
	Pluggable connector per DIN 41651; Female connector	40	Pluggable connector per DIN 41651; Female connector	40	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/340-100
									2 m	706-150/340-200
									3 m	706-150/340-300
	Pluggable connector per DIN 41651; Female connector	50	Pluggable connector per DIN 41651; Female connector	50	LiYY	≤ 35 VAC/VDC	1 A	0.14 mm²	1 m	706-150/350-100
									2 m	706-150/350-200
									3 m	706-150/350-300

Note: When using more than 10 wires, the maximum current per wire must be reduced to 0.7 A.

Image	Connection Type 1	Pole No. 1	Connection Type 2	Pole No. 2	Cable Type	Operating Voltage	Current per Wire (max.)	Wire Cross-Section	Length	Item No.
Connection cable; Pluggable connector per DIN 41651/Pluggable connector per DIN 41651; Female connector; compatible with 857-981 and 857-982 Interface Adapters										
	Pluggable connector per DIN 41651; Female connector	14	Pluggable connector per DIN 41651; Female connector	14	LiYY	≤ 35 VAC/VDC	2 A	0.14 mm²	1 m	706-753/300-100
									2 m	706-753/300-200
									3 m	706-753/300-300
	Pluggable connector per DIN 41651; Female connector	16	Pluggable connector per DIN 41651; Female connector	16	LiYY	≤ 35 VAC/VDC	2 A	0.14 mm²	1 m	706-753/301-100
									2 m	706-753/301-200
									3 m	706-753/301-300

Note: When using more than 10 wires, the maximum current per wire must be reduced to 0.7 A.

Universal connection cable ▸ with D-sub pluggable connector
706 Series

Image	Connection Type 1	Pole No. 1	Connection Type 2	Pole No. 2	Cable Type	Operating Voltage	Current per Wire (max.)	Wire Cross-Section	Length	Item No.
Connection cable; D-sub/open-ended; Male connector										
	D-sub; Male connector	9	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/509-100
									2 m	706-100/509-200
									3 m	706-100/509-300
	D-sub; Male connector	15	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/515-100
									2 m	706-100/515-200
									3 m	706-100/515-300
	D-sub; Male connector	25	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/525-100
									2 m	706-100/525-200
									3 m	706-100/525-300
	D-sub; Male connector	37	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/537-100
									2 m	706-100/537-200
									3 m	706-100/537-300
	D-sub; Male connector	50	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/550-100
									2 m	706-100/550-200
									3 m	706-100/550-300
Connection cable; D-sub/open-ended; Female connector										
	D-sub; Female connector	9	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/609-100
									2 m	706-100/609-200
									3 m	706-100/609-300
	D-sub; Female connector	15	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/615-100
									2 m	706-100/615-200
									3 m	706-100/615-300
	D-sub; Female connector	25	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/625-100
									2 m	706-100/625-200
									3 m	706-100/625-300
	D-sub; Female connector	37	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/637-100
									2 m	706-100/637-200
									3 m	706-100/637-300
	D-sub; Female connector	50	open-ended	–	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-100/650-100
									2 m	706-100/650-200
									3 m	706-100/650-300
Connection cable; D-sub/D-sub; Male connector/Female connector										
	D-sub; Male connector	9	D-sub; Female connector	9	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-160/509-100
									2 m	706-160/509-200
									3 m	706-160/509-300
	D-sub; Male connector	15	D-sub; Female connector	15	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-160/515-100
									2 m	706-160/515-200
									3 m	706-160/515-300
	D-sub; Male connector	25	D-sub; Female connector	25	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-160/525-100
									2 m	706-160/525-200
									3 m	706-160/525-300
	D-sub; Male connector	37	D-sub; Female connector	37	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-160/537-100
									2 m	706-160/537-200
									3 m	706-160/537-300
	D-sub; Male connector	50	D-sub; Female connector	50	LiYCY	≤ 35 VAC/VDC	2 A	0.25 mm²	1 m	706-160/550-100
									2 m	706-160/550-200
									3 m	706-160/550-300

Note: When using more than 10 wires, the maximum current per wire must be reduced to 1 A.

WAGO Component Modules

WAGO Component Modules

Switching Modules — Seite
286 Series 554
2042 Series 556
789 Series 558

Manual Operation Modules
789 Series 562

Component Modules
with diode, 286 Series 564
with diode, 289 Series 568
with LED, 289 Series 574
with fuse, 286 Series 576
with resistor, 289 Series 578
PCB for self-assembly, 289 Series 586

Potential Distribution Modules
288 Series 588
830 Series 593

Potential Distribution Modules
787 Series 606

Current Flow Monitoring Modules
286 Series 610

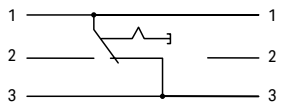
Bridge Rectifier Module
286 Series 614

S0 Interface Power Supply
286 Series 616

AND Gate Module
286 Series 618

Specialty Electronic Modules
789 Series 622

Switching module ▸ Changeover rocker switch ▸ Switching Voltage, Max.: 250 VAC; 24 VDC ▸ Switching current (resistive) max.: 6 A



Item No.	PU
286-895	15

Electrical data	
Number of changeover/switchover contacts	1
Switching current (resistive) max.	6 A
Switching Voltage, Max.	250 VAC; 24 VDC
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	50 x 10³ switching operations
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +40 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 85 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

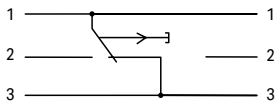
Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Switching module ▶ Momentary switch ▶ Switching Voltage, Max.: 250 VAC; 24 VDC ▶ Switching current (resistive) max.: 6 A

Similar to illustration



Item No.	PU
286-896	15

Electrical data	
Number of changeover/switchover contacts	1
Switching current (resistive) max.	6 A
Switching Voltage, Max.	250 VAC; 24 VDC
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	50 x 10³ switching operations

Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +40 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 85 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

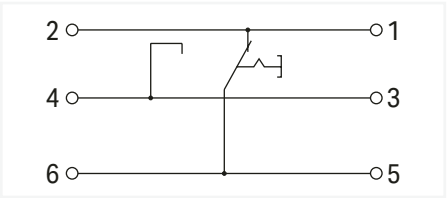
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

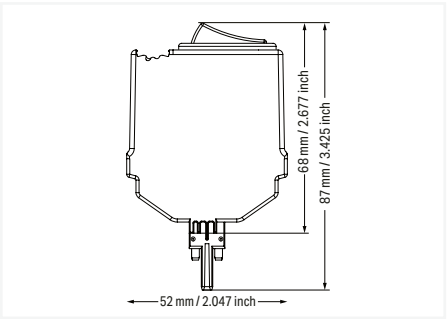
Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Switching module ▶ Changeover rocker switch ▶ Switching Voltage, Max.: 250 VAC; 48 VDC ▶ Switching current (resistive) max.: 10 A



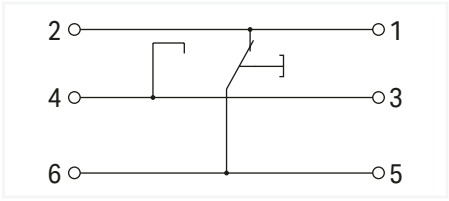
Item No.	PU
2042-1008	1



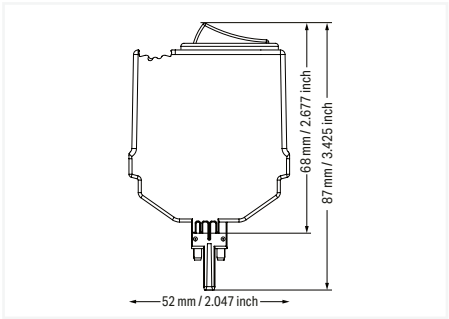
Electrical data	
Number of changeover/switchover contacts	1
Switching current (resistive) max.	10 A
Inrush current (max.)	128 A
Switching Voltage, Max.	250 VAC; 48 VDC
Contact resistance	≤ 20 mΩ
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations; UL: 6 x 10^3 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Overvoltage category	II
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 68 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373

7

Switching module ▶ Momentary switch ▶ Switching Voltage, Max.: 250 VAC; 48 VDC ▶ Switching current (resistive) max.: 10 A



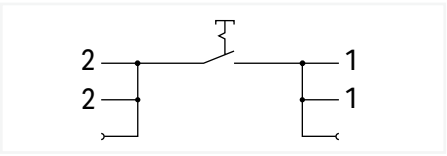
Item No.	PU
2042-1108	1



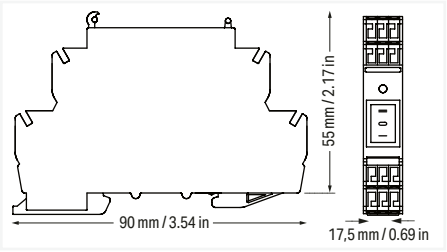
Electrical data	
Number of changeover/switchover contacts	1
Switching current (resistive) max.	10 A
Inrush current (max.)	128 A
Switching Voltage, Max.	250 VAC; 48 VDC
Contact resistance	≤ 20 mΩ
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Electrical life (NO; resistive load; 23 °C)	10 x 10^3 switching operations; UL: 6 x 10^3 switching operations
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Pollution degree	2
Overvoltage category	II
Dielectric strength (open contact) (AC, 1 min)	1.5 kVrms
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height from the surface x Depth	15.5 mm x 68 mm x 52 mm
Mounting type	Pluggable module for TOPJOB® S carrier terminal block
Standards and specifications	
Standards/specifications	EN 61010-2-201; EN 61373

Switching module ▸ Circuit breaker, 1-pole ▸ Switching Voltage, Max.: 250 VAC ▸ Switching current (resistive) max.: 16 A

Similar to illustration



Item No.	PU
789-801	10



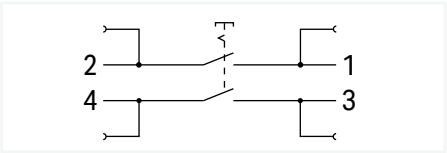
Electrical data	
Operating voltage	≤ 250 VAC
Number of make/switch-on contacts	1
Switching current (resistive) max.	16 A
Inrush current (max.)	100 A (capacitive)
Switching Voltage, Max.	250 VAC
Contact resistance	≤ 100 mΩ (12 V / 1 ADC; new condition)
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	10 x 10³ switching operations
Mechanical life	50 x 10³ switching operations

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (open contact) (AC, 1 min)	1.25 kVrms
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +80 °C

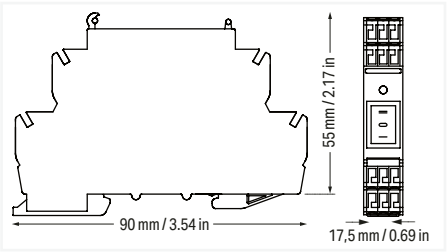
Connection data	
Connection technology	CAGE CLAMP®
Solid conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Contact material (switch)	Ag alloy

Switching module ▶ Circuit breaker, 2-pole ▶ Switching Voltage, Max.: 250 VAC ▶ Switching current (resistive) max.: 16 A



	Item No.	PU
	789-802	10



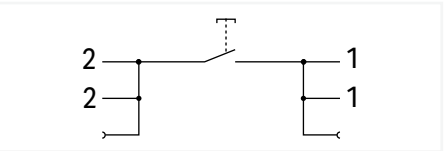
Electrical data	
Operating voltage	≤ 250 VAC
Number of make/switch-on contacts	2
Switching current (resistive) max.	16 A
Inrush current (max.)	100 A (capacitive)
Switching Voltage, Max.	250 VAC
Contact resistance	≤ 100 mΩ (12 V / 1 ADC; new condition)
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	10 x 10³ switching operations
Mechanical life	50 x 10³ switching operations

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (open contact) (AC, 1 min)	1.25 kVrms
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +80 °C

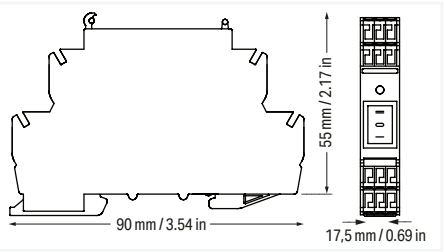
Connection data	
Connection technology	CAGE CLAMP®
Solid conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Contact material (switch)	Ag alloy

Switching module ▸ Button, 1-pole ▸ Switching Voltage, Max.: 250 VAC ▸ Switching current (resistive) max.: 16 A



Item No.	PU
789-803	10



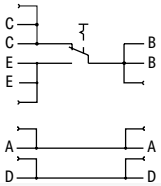
Electrical data	
Operating voltage	≤ 250 VAC
Number of make/switch-on contacts	1
Switching current (resistive) max.	16 A
Inrush current (max.)	100 A (capacitive)
Switching Voltage, Max.	250 VAC
Contact resistance	≤ 100 mΩ (12 V / 1 ADC; new condition)
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	10 x 10³ switching operations
Mechanical life	50 x 10³ switching operations

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (open contact) (AC, 1 min)	1.25 kVrms
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +80 °C

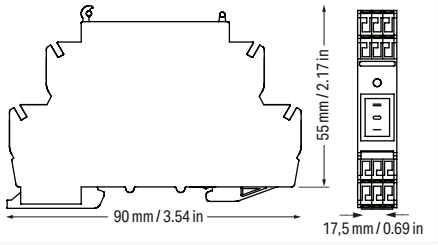
Connection data	
Connection technology	CAGE CLAMP®
Solid conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Contact material (switch)	Ag alloy

Switching module ▶ Changeover rocker switch, 1-pole ▶ Switching Voltage, Max.: 250 VAC ▶ Switching current (resistive) max.: 10 A

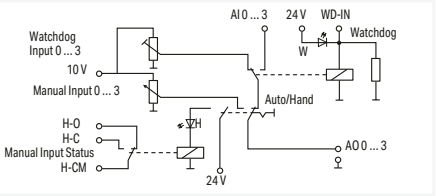


Item No.	PU
789-800	10

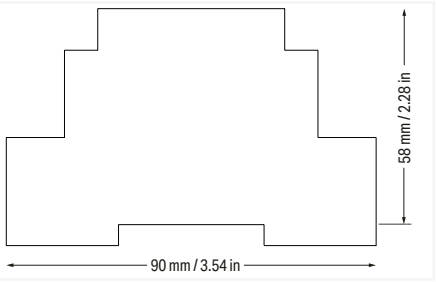


Electrical data	
Operating voltage	≤ 250 VAC
Number of changeover/switchover contacts	1
Switching current (resistive) max.	10 A
Inrush current (max.)	100 A (capacitive)
Switching Voltage, Max.	250 VAC
Contact resistance	≤ 100 mΩ (12 V / 1 ADC; new condition)
Insulation resistance	≥ 100 MΩ (500 VDC; new condition)
Contact gap	≥ 3 mm
Electrical life (NO; resistive load; 23 °C)	10 x 10³ switching operations
Mechanical life	100 x 10³ switching operations
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength (open contact) (AC, 1 min)	1.25 kVrms
Ambient temperature (operation)	-20 … +55 °C
Ambient temperature (storage)	-40 … +80 °C
Connection data	
Connection technology	CAGE CLAMP®
Solid conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	17.5 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure
Contact material (switch)	Ag alloy

Manually operated module ▶ 4 analog outputs



	Item No.	PU
	789-811	1

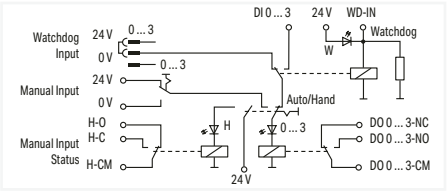


Short description:
WAGO's analog manually operated module (789-811) monitors 0 ... 3 analog inputs. Depending on both manual/automatic switch and watchdog input, 0 to 10 V set voltage is transmitted to the output.

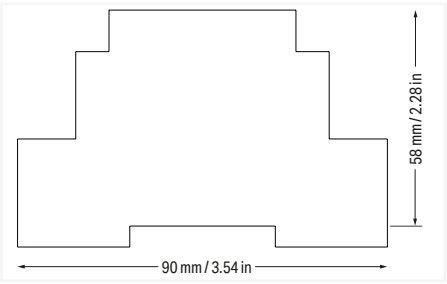
Electrical data	
Nominal operating voltage	24 VDC
Operating voltage range	±20 %
Inputs	No. 1 / 10: 24 V; Power supply; No. 2: GND; No. 3 / 4 / 5 / 6: AI-0 ... 3; Input 0 ... 3; 0 ... 10 V / 20 mA (max.); No.11: WD-IN; Watchdog input; 24 V / 20 mA (max.)
Outputs	No. 7: H-C; Manual operation; "closed"; No. 8: H-CM; Manual operation; "common"; No. 9: H-O; Manual operation; "open"; No. 12 / 15 / 18 / 21: DO-0 ... 3-NC; Channel 0 ... 3; Break contact; 250 VAC / 30 VDC; 8 A; No. 13 / 16 / 19 / 22: DO-0 ... 3-CM; Channel 0 ... 3; Common; No. 14 / 17 / 20 / 23: DO-0 ... 3-NO; Channel 0 ... 3; Make contact; 250 VAC / 30 VDC; 8 A
Safety and protection/Environmental requirements	
Ambient temperature (operation)	0 ... +50 °C
Ambient temperature (storage)	-25 ... +70 °C
Connection data	
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 734 Series
Solid/fine-stranded/AWG	0.08 ... 1.5 mm² / 0.08 ... 1.5 mm² / 28 ... 14 AWG
Strip length	7 mm / 0.28 inches
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 Series
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	106 mm x 90 mm x 58 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure

7

Manually operated module ▶ 4 digital outputs



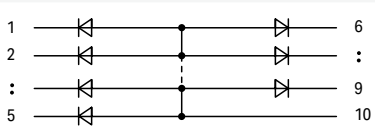
	Item No.	PU
	789-810	3



Short description:
WAGO's digital manually operated module (789-810) monitors 0 ... 3 inputs and signals their status via green LED and the power relay's changeover contact. Depending on both the manual/automatic switch and watchdog input, the states 0 or 1 are transmitted (electrically isolated) via relay to the output.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage range	±20 %
Inputs	No. 1 / 10: 24 V; Power supply; No. 2: GND; No. 3 / 4 / 5 / 6: DI-0 ... 3; Input 0 ... 3; 24 V / 20 mA (max.); No.11: WD-IN; Watchdog input; 24 V / 20 mA (max.)
Outputs	No. 7: H-C; Manual operation; "closed"; No. 8: H-CM; Manual operation; "common"; No. 9: H-O; Manual operation; "open"; No. 12 / 15 / 18 / 21: GND; No. 13 / 16 / 19 / 22: AO-0 ... 3; Output 0 ... 3; 0 ... 10 V / 20 mA (max.); No. 14 / 17 / 20 / 23: GND
Safety and protection/Environmental requirements	
Dielectric strength, input/output (AC, 1 min)	4 kVrms
Ambient temperature (operation)	0 ... +50 °C
Ambient temperature (storage)	-25 ... +70 °C
Connection data	
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 734 Series
Solid/fine-stranded/AWG	0.08 ... 1.5 mm² / 0.08 ... 1.5 mm² / 28 ... 14 AWG
Strip length	7 mm / 0.28 inches
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 Series
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	106 mm x 90 mm x 58 mm
Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure

Component module with diode ▸ 5 diodes ▸ 1N4007; with common anode



	Item No.	PU
	286-805	15

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Rectified current for each diode (resistive)	1 A
Type of diode	1N4007; with common anode
Number/type of diode/LED	5 diodes
Rectified current for each diode (resistive)	1 A

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-609	30 (1)

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

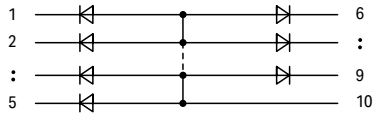
	Item No.	PU (SPU)
	280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-763	25 (1)

Component module with diode ▶ 7 diodes ▶ 1N4007; with common anode

Similar to illustration



	Item No.	PU
	286-807	10

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Rectified current for each diode (resistive)	1 A
Type of diode	1N4007; with common anode
Number/type of diode/LED	7 diodes
Rectified current for each diode (resistive)	1 A

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-628	20 (1)

Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

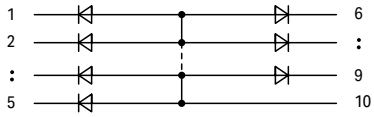
Item No.	PU (SPU)
280-638	20 (1)

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-764	20 (1)

Component module with diode ▶ 9 diodes ▶ 1N4007; with common anode

Similar to illustration



Item No.	PU
286-809	10

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Rectified current for each diode (resistive)	1 A
Type of diode	1N4007; with common anode
Number/type of diode/LED	9 diodes
Rectified current for each diode (resistive)	1 A

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	25 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-629	15 (1)

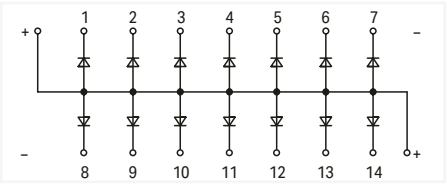
Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-639	15 (1)

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-765	15 (1)

Component module with diode ▶ 14 diodes ▶ 1N4007; with common anode



Item No.	PU
289-121	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Type of diode	1N4007; with common anode
Number/type of diode/LED	14 diodes
Forward voltage per diode	1.1 V
Forward current per diode (resistive)	1 A
Leakage current	50 µA

Safety and protection/Environmental requirements	
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 85 % (non-condensing)
Operating altitude (max.)	2000 m

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

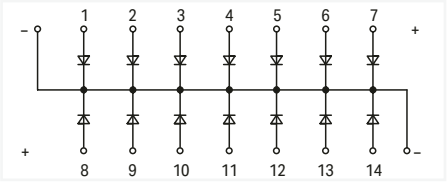
Cover; Type 1; suitable for cover carrier type 1

Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Component module with diode ▶ 14 diodes ▶ 1N4007; with common cathode



	Item No.	PU
	289-111	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Type of diode	1N4007; with common cathode
Number/type of diode/LED	14 diodes
Rectified current for each diode (resistive)	1 A
Forward voltage per diode	1.1 V
Forward current per diode (resistive)	1 A
Leakage current	50 µA

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

Cover; Type 1; suitable for cover carrier type 1

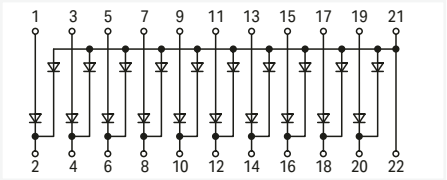
Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

7

Component module with diode ▸ 20 diodes ▸ EM 513



	Item No.	PU
	289-151	25

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1600 V
Rectified current for each diode (resistive)	1 A
Type of diode	EM 513
Number/type of diode/LED	20 diodes
Rectified current for each diode (resistive)	1 A
Forward voltage per diode	1.1 V
Forward current per diode (resistive)	1 A
Leakage current	50 µA

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	PCB with mounting feet
Insulation material (main housing)	Polyamide (PA66)

Accessories

Mounting carrier; gray

	Item No.	PU (SPU)
	288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

	Item No.	PU (SPU)
	288-002	100 (10)

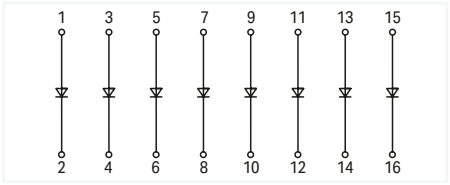
Cover; Type 1; suitable for cover carrier type 1

	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with diode ▶ 8 diodes ▶ 1N4007



	Item No.	PU
	289-101	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Type of diode	1N4007
Number/type of diode/LED	8 diodes
Rectified current for each diode (resistive)	1 A
Forward voltage per diode	1.1 V
Forward current per diode (resistive)	1 A
Leakage current	50 µA

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

	Item No.	PU (SPU)
	288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

	Item No.	PU (SPU)
	288-002	100 (10)

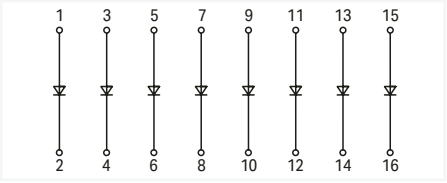
Cover; Type 1; suitable for cover carrier type 1

	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with diode ▸ 8 diodes ▸ P600B



	Item No.	PU
	289-103	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 100 VAC/VDC
Peak reverse voltage	100 V
Type of diode	P600B
Number/type of diode/LED	8 diodes
Forward voltage per diode	1 V
Forward current per diode (resistive)	6 A
Leakage current	5 µA

Safety and protection/Environmental requirements	
Rated Voltage	150 V
Pollution degree	2
Overvoltage category	II
Dielectric strength (channel/channel) (AC, 1 min.)	2.7 kVrms
Protection type	IP00
Insulation type	Reinforced insulation (safe isolation)
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	≤ 95 % (non-condensing)
Operating altitude (max.)	2000 m

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Standards and specifications	
Standards/specifications	EN 61010-2-201

Accessories

Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

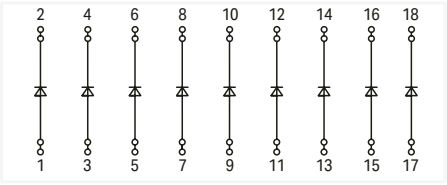
Cover; Type 1; suitable for cover carrier type 1

Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

Component module with diode ▶ 9 diodes ▶ 1N5408



	Item No.	PU
	289-105	10

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. permissible forward current per the manufacturer's data sheet. With all diodes loaded, the continuous current must be reduced to 0.45 A.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Peak reverse voltage	1000 V
Type of diode	1N5408
Number/type of diode/LED	9 diodes
Rectified current for each diode (resistive)	3 A
Forward voltage per diode	1.3 V
Forward current per diode (resistive)	3 A
Leakage current	10 µA

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

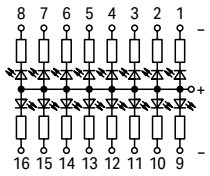
Cover; Type 1; suitable for cover carrier type 1

	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with LED ▶ 16 LED (red); with common anode



	Item No.	PU
	289-202	10

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	20 … 26 VDC
Current consumption at nominal supply voltage	≤ 5.6 mA (per LED)
Number/type of diode/LED	16 LED (red); with common anode
Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C
Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN
Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

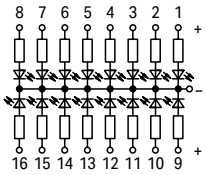
Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

Component module with LED ▶ 16 LED (red); with common cathode

Similar to illustration



	Item No.	PU
	289-201	10

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	20 … 26 VDC
Current consumption at nominal supply voltage	≤ 5.6 mA (per LED)
Number/type of diode/LED	16 LED (red); with common cathode

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

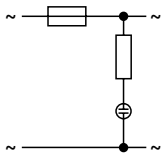
	Item No.	PU (SPU)
	288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

	Item No.	PU (SPU)
	288-002	100 (10)

Component module with a fuse ▶ for (5 x 20) mm microfuse ▶ Nominal operating voltage: 230 VAC/VDC

Similar to illustration



Item No.	PU
286-891	30

Electrical data	
Nominal operating voltage	230 VAC/VDC
Fuse capacity (max.)	6.3 A
Leakage current in case of a blown fuse	0.5 mA
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

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Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-608	40 (1)

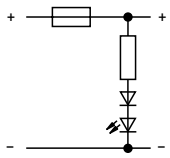
Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-618	40 (1)

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-762	30 (1)

Component module with a fuse ▶ for (5 x 20) mm microfuse ▶ Nominal operating voltage: 24 VAC/VDC



	Item No.	PU
	286-890	25

Electrical data	
Nominal operating voltage	24 VAC/VDC
Fuse capacity (max.)	6.3 A
Leakage current in case of a blown fuse	5 mA

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-608	40 (1)

Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

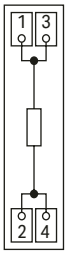
	Item No.	PU (SPU)
	280-618	40 (1)

Terminal block for pluggable modules; 4-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-762	30 (1)

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 100R ▶ 5 W

Similar to illustration

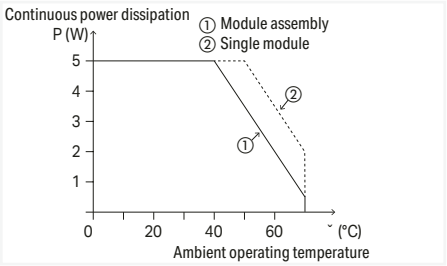


	Item No.	PU
	289-128/005-000	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	100R
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Cover; Type 1; suitable for cover carrier type 1

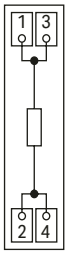
	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 270R ▶ 5 W

Similar to illustration

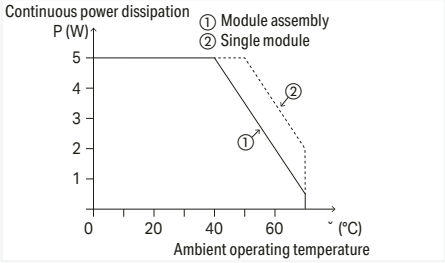


	Item No.	PU
	289-128/006-000	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	270R
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Cover; Type 1; suitable for cover carrier type 1

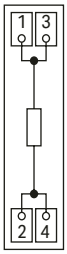
	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 2K4 ▶ 5 W

Similar to illustration

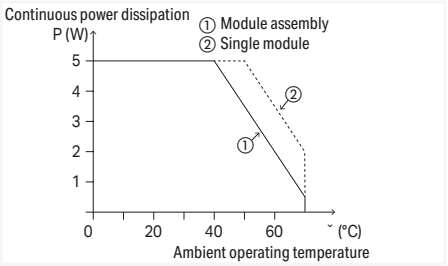


	Item No.	PU
	289-128/001-000	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	2K4
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Cover; Type 1; suitable for cover carrier type 1

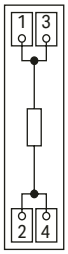
	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 4K7 ▶ 5 W

Similar to illustration

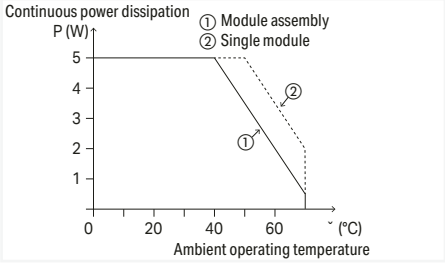


	Item No.	PU
	289-128/002-000	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	4K7
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

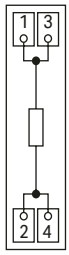
Cover; Type 1; suitable for cover carrier type 1

	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 6K8 ▶ 5 W

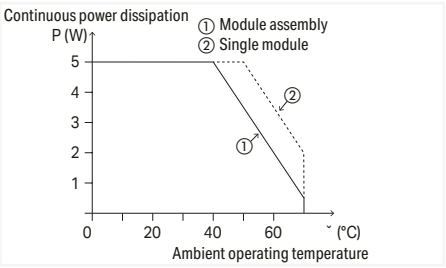


	Item No.	PU
	289-128/003-000	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	6K8
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Insulation material (main housing)	Polyamide (PA66)

Accessories

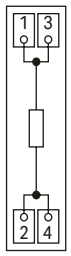
Cover; Type 1; suitable for cover carrier type 1

	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 1 pcs ▶ Resistor: 9K1 ▶ 5 W

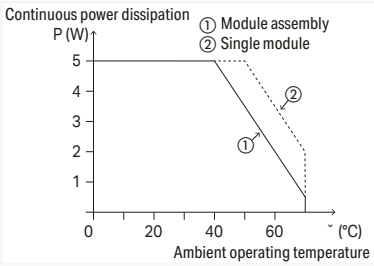


	Item No.	PU
	289-128	18

Safety Information
Depending on operating conditions, the components' temperature may exceed the limit temperature for accessible parts.

Safety information 2
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Other resistors are available upon request!



Electrical data	
Resistor	9K1
Tolerance	±10 %
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	5 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-20 … +70 °C (derating must be observed)
Ambient temperature (storage)	-40 … +70 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Insulation material (main housing)	Polyamide (PA66)

Accessories

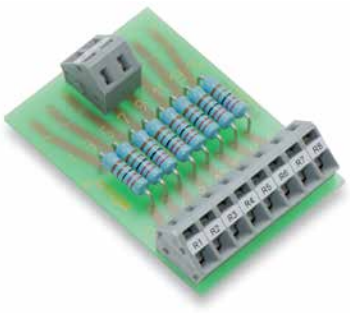
Cover; Type 1; suitable for cover carrier type 1

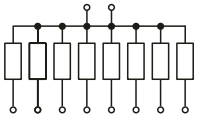
	Item No.	PU
	709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

	Item No.	PU
	709-167	10

Component module with a resistor ▶ Number of resistors: with 8 pcs ▶ Resistor: 2K2 ▶ 1 W





	Item No.	PU
	289-113	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. admissible capacity of a single resistor – with all resistors loaded, the max. admissible power dissipation must be reduced.
Other resistors are available upon request!

Electrical data	
Operating voltage	≤ 40 VAC/VDC
Resistor	2K2
Tolerance	±1 %
Resistor type/design	DIN 0414
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	1 W

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

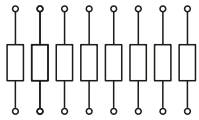
Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

Component module with a resistor ▶ Number of resistors: with 8 pcs ▶ Resistor: 2K7 ▶ 0.6 W



	Item No.	PU
	289-114	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Note
Max. admissible capacity of a single resistor – with all resistors loaded, the max. admissible power dissipation must be reduced.
Other resistors are available upon request!

Electrical data	
Operating voltage	≤ 40 VAC/VDC
Resistor	2K7
Tolerance	±1 %
Resistor type/design	DIN 0207
Temperature coefficient	50 ppm (20 °C)
Component rated dissipation (P70)	0.6 W

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

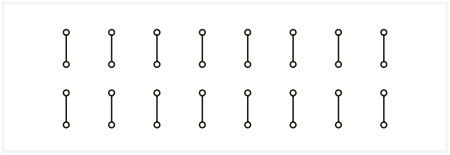
Mounting carrier; gray

	Item No.	PU (SPU)
	288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

	Item No.	PU (SPU)
	288-002	100 (10)

PCB for self-assembly ▶ with 8 mounting positions



Item No.	PU
289-102	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Nominal current	3 A
Specialty functions	with 8 mounting positions

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

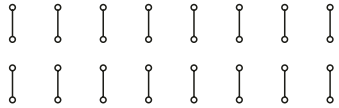
Cover; Type 1; suitable for cover carrier type 1

Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

PCB for self-assembly ▶ With solder pin; with 8 mounting positions



	Item No.	PU
	289-131	50

Safety Information
Notice! Live parts can be easily touched! Protection against direct contact must be provided by the equipment manufacturer, e.g., using a WAGO 709 Series Cover (see "Accessories") or a similar cover. The installation guidelines must be observed for each individual application.

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Nominal current	3 A
Specialty functions	With solder pin; with 8 mounting positions

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	1.5 kV
Protection type	IP00
Ambient temperature (operation)	-25 … +40 °C

Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 236 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Note (conductor cross-section)	12 AWG: THHN, THWN

Physical data/Mechanical data/Material Data	
Mounting type	Mounting on DIN-rail via DIN-rail adapter
Housing design	PCB

Accessories

Mounting carrier; gray

Item No.	PU (SPU)
288-001	50 (1)

Universal mounting foot; snap-fit type; suitable for DIN 15, 35 and 32 rails; gray

Item No.	PU (SPU)
288-002	100 (10)

Cover; Type 1; suitable for cover carrier type 1

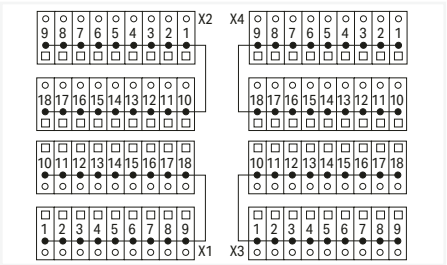
Item No.	PU
709-153	10

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut

Item No.	PU
709-167	10

7

Potential distribution module ▶ Total number of potentials: 4 ▶ Clamping units: 18



Item No.	PU
288-825	5

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	12 A
Total current per potential (max.)	12 A

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +80 °C

Connection data	
Total number of potentials	4
Clamping units	18

Connection 1	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Mating direction	vertical

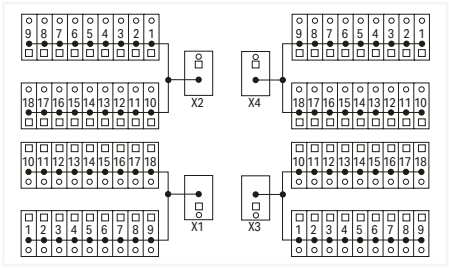
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	115 mm x 85 mm x 39 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Jumper; 2-way; unplated; silver-colored

Item No.	PU (SPU)
745-382	250 (50)

Potential distribution module ▶ Total number of potentials: 4 ▶ Clamping units: 19



Item No.	PU
288-837	4

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	12 A
Total current per potential (max.)	32 A

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +80 °C

Connection data	
Total number of potentials	4
Clamping units	19
Connection 1	
Connection type	Power supply
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Connection points
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Strip length	8 … 9 mm / 0.31 … 0.35 inches

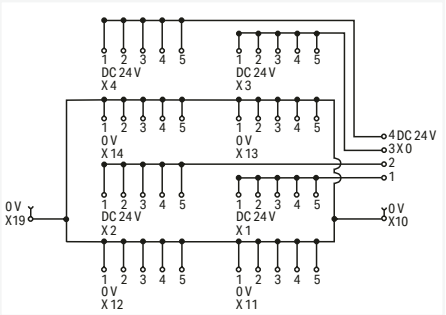
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	115 mm x 85 mm x 45 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Jumper; 2-way; unplated; silver-colored

Item No.	PU (SPU)
745-382	250 (50)

Potential distribution module ▶ Total number of potentials: 4 ▶ Clamping units: 28



	Item No.	PU
	288-870/000-030	1

Features:

- May be used with electronic circuit breakers for 24 and 0 VDC power distribution, as a substitute for rail-mount terminal blocks
- Pre-wiring and electrical isolation of current paths via pluggable *picoMAX*® Female Headers
- Optional coding pins (2092-1610) protect against any inadvertent mixing of female headers
- Optional gripping plates with sliding connector release (2092-1601/002-000 or 2092-1602/002-000) provide conductor strain relief
- 0 V may be supplied to the adjancent modules via comb-style jumper bar (745-682

Electrical data	
Nominal operating voltage	24 VDC
Current per connection (max.)	10 A
Total current per potential (max.)	10 A
Total current 0 V (max.)	40 A
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C (without condensation)
Ambient temperature (storage)	-40 … +85 °C
Connection data	
Total number of potentials	4
Clamping units	28
Connection 1	
Connection type	Power supply 0 V
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 16 mm² / 0.2 … 16 mm² / 24 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Mating direction	45°
Connection 2	
Connection type	Power supply 24 V; connection points
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0 (WAGO 2092 Series)
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	100 mm x 85 mm x 49 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Jumper; 2-way; unplated; silver-colored

	Item No.	PU (SPU)
	745-682	400 (50)

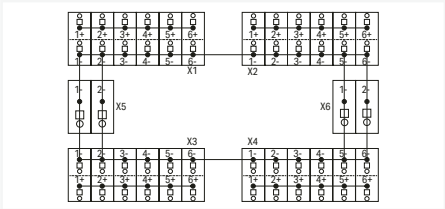
Gripping plate

	Item No.	PU (SPU)
	2092-1601/002-000	100 (25)

Coding key carrier; orange

	Item No.	PU (SPU)
	2092-1610	100 (25)

Potential distribution module ▶ Total number of potentials: 4 ▶ Clamping units: 6



	Item No.	PU
	288-867	1

Features:

- May be used with electronic circuit breakers for 24 and 0 VDC power distribution, as a substitute for rail-mount terminal blocks
- Four potential groups for four output circuits
- Six connection points per potential group for positive and negative potentials
- On-unit commoned negative potential with optional commoning to adjacent modules via comb-style jumper bar (745-682)
- Marker carrier is available

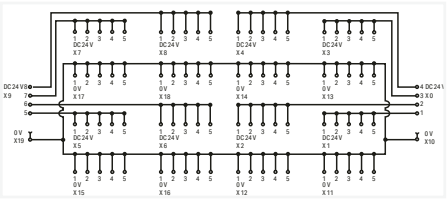
Electrical data	
Nominal operating voltage	24 VDC
Current per connection (max.)	10 A
Total current per potential (max.)	10 A
Total current 0 V (max.)	40 A
Safety and protection/Environmental requirements	
Rated Voltage	50 V
Rated impulse withstand voltage	0.8 kV
Pollution degree	2
Ambient temperature (operation)	-20 … +50 °C
Ambient temperature (storage)	-40 … +70 °C
Connection data	
Total number of potentials	4
Clamping units	6
Connection 1	
Connection type	Connection points
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Mating direction	45°
Connection 2	
Connection type	Negative potential
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	70 mm x 105 mm x 50 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Jumper; 2-way; unplated; silver-colored

	Item No.	PU (SPU)
	745-682	400 (50)

Potential distribution module ▶ Total number of potentials: 8 ▶ Clamping units: 48



	Item No.	PU
	288-870/000-040	1

Features:

- May be used with electronic circuit breakers for 24 and 0 VDC power distribution, as a substitute for rail-mount terminal blocks
- Pre-wiring and electrical isolation of current paths via pluggable *picoMAX*® Female Headers
- Optional coding pins (2092-1610) protect against any inadvertent mixing of female headers
- Optional gripping plates with sliding connector release (2092-1601/002-000 or 2092-1602/002-000) provide conductor strain relief
- 0 V may be supplied to the adjacent modules via comb-style jumper bar (745-682) (Derating with jumper bar: -1 A/K > 60 °C surrounding air temperature)

Electrical data	
Nominal operating voltage	24 VDC
Current per connection (max.)	10 A
Total current per potential (max.)	10 A
Total current 0 V (max.)	76 A
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C (without condensation)
Ambient temperature (storage)	-40 … +85 °C
Connection data	
Total number of potentials	8
Clamping units	48
Connection 1	
Connection type	Power supply 0 V
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 16 mm² / 0.2 … 16 mm² / 24 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Mating direction	45°
Connection 2	
Connection type	Power supply 24 V; connection points
Connection technology	Push-in CAGE CLAMP®
WAGO connector	*picoMAX*® 5.0 (WAGO 2092 Series)
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	154 mm x 85 mm x 49 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier

Accessories

Jumper; 2-way; unplated; silver-colored

Item No.	PU (SPU)
745-682	400 (50)

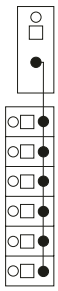
Gripping plate

Item No.	PU (SPU)
2092-1601/002-000	100 (25)

Coding key carrier; orange

Item No.	PU (SPU)
2092-1610	100 (25)

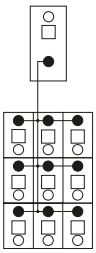
Potential distribution module ▶ Total number of potentials: 1 ▶ with 1 input clamping point; with 6 output clamping points



Color	Item No.	PU
gray	830-800/000-302	10
blue	830-800/000-302/000-006	10

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	12 A
Total current per potential (max.)	65 A
Specialty functions	with 1 input clamping point; with 6 output clamping points
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	1
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 16 mm² / 0.2 … 16 mm² / 24 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	21 mm x 85 mm x 49 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

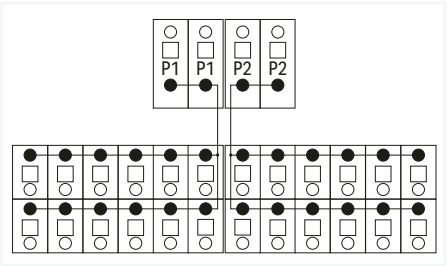
Potential distribution module ▶ Total number of potentials: 1 ▶ with 1 input clamping point; with 9 output clamping points



Color	Item No.	PU
gray	830-800/000-303	10

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	65 A
Specialty functions	with 1 input clamping point; with 9 output clamping points
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	1
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 16 mm² / 0.2 … 16 mm² / 24 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	21 mm x 85 mm x 62 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

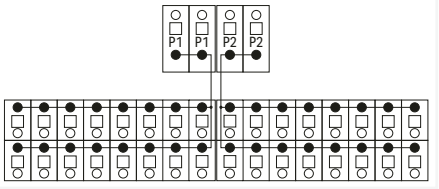
Potential distribution module ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 12 output clamping points each



Color	Item No.	PU
gray	830-800/000-306	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 12 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	69 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

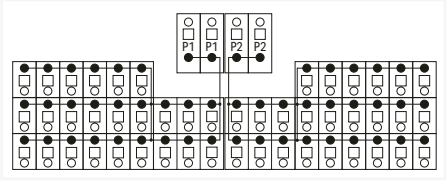
Potential distribution module ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 16 output clamping points each



Color	Item No.	PU
gray	830-800/000-307	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 16 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	89 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

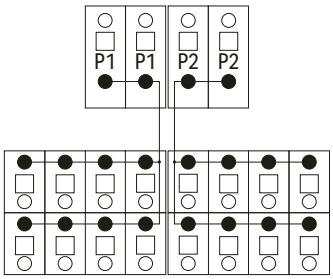
Potential distribution module ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 24 output clamping points each



Color	Item No.	PU
gray	830-800/000-308	3

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 24 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736/737 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	102 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

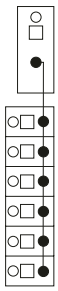
Potential distribution module ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 8 output clamping points each



Color	Item No.	PU
gray	830-800/000-305	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 8 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 745 Series
Solid/fine-stranded/AWG	0.2 … 6 mm² / 0.2 … 6 mm² / 24 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	45°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	49 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

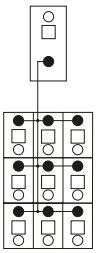
Potential distribution module ▶ Lever ▶ Total number of potentials: 1 ▶ with 1 input clamping point; with 6 output clamping points



Color	Item No.	PU
gray	830-800/000-312	10
blue	830-800/000-312/000-006	10

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	12 A
Total current per potential (max.)	65 A
Specialty functions	with 1 input clamping point; with 6 output clamping points
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	1
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2716 Series
Solid/fine-stranded/AWG	1.5 … 16 mm² / 1.5 … 16 mm² / 16 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 739 Series
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	21 mm x 85 mm x 49 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

Potential distribution module ▶ Lever ▶ Total number of potentials: 1 ▶ with 1 input clamping point; with 9 output clamping points

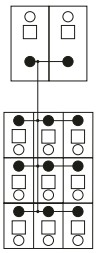


Color	Item No.	PU
gray	830-800/000-313	10

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	65 A
Specialty functions	with 1 input clamping point; with 9 output clamping points
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	1
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2716 Series
Solid/fine-stranded/AWG	1.5 … 16 mm² / 1.5 … 16 mm² / 16 … 6 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 737 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	21 mm x 85 mm x 62 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications (pending)	cULus 61010-2-201

7

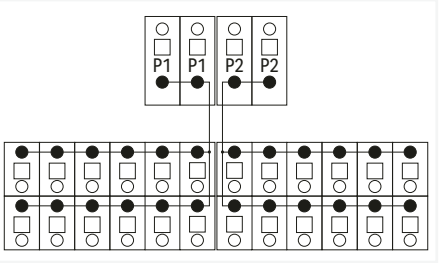
Potential distribution module ▶ Lever ▶ Total number of potentials: 1 ▶ with 2 input clamping points; with 9 output clamping points



Color	Item No.	PU
gray	830-800/000-314	10

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points; with 9 output clamping points
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	1
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid/fine-stranded/AWG	0.5 … 6 mm² / 0.5 … 6 mm² / 20 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 mm / 0.43 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	21 mm x 85 mm x 62 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

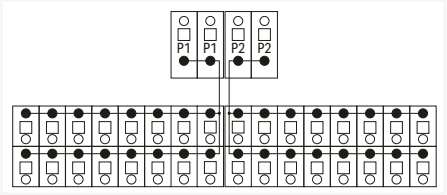
Potential distribution module ▶ Lever ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 12 output clamping points each



Color	Item No.	PU
gray	830-800/000-316	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 12 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid/fine-stranded/AWG	0.5 … 6 mm² / 0.5 … 6 mm² / 20 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	69 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

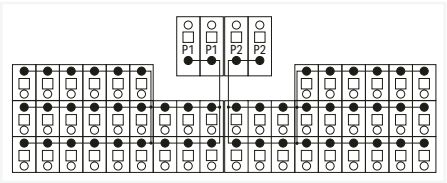
Potential distribution module ▶ Lever ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 16 output clamping points each



Color	Item No.	PU
gray	830-800/000-317	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 16 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid/fine-stranded/AWG	0.5 … 6 mm² / 0.5 … 6 mm² / 20 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	89 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

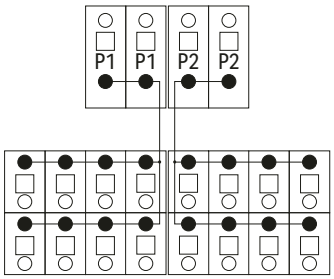
Potential distribution module ▶ Lever ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 24 output clamping points each



Color	Item No.	PU
gray	830-800/000-318	3

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 24 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid/fine-stranded/AWG	0.5 … 6 mm² / 0.5 … 6 mm² / 20 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736/737 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	102 mm x 55 mm x 53 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

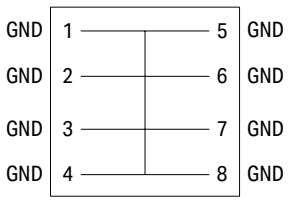
Potential distribution module ▶ Lever ▶ Total number of potentials: 2 ▶ with 2 input clamping points each; with 8 output clamping points each



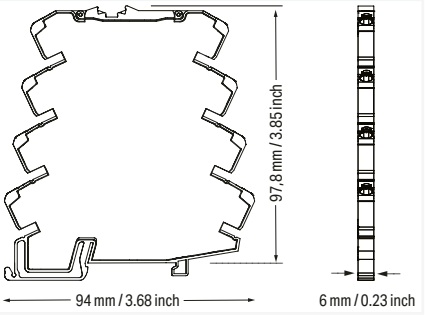
Color	Item No.	PU
gray	830-800/000-315	6

Electrical data	
Operating voltage	≤ 250 VAC/VDC
Current per connection (max.)	10 A
Total current per potential (max.)	30 A
Specialty functions	with 2 input clamping points each; with 8 output clamping points each
Safety and protection/Environmental requirements	
Ambient temperature (operation)	-20 … +50 °C
Relative humidity	≤ 95 % (without condensation)
Connection data	
Total number of potentials	2
Connection 1	
Connection type	Input
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid/fine-stranded/AWG	0.5 … 6 mm² / 0.5 … 6 mm² / 20 … 10 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	11 … 12 mm / 0.43 … 0.47 inches
Mating direction	30°
Connection 2	
Connection type	Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 736 Series
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	49 mm x 55 mm x 38 mm
Mounting type	DIN-35 rail
Housing design	Mounting carrier
Standards and specifications	
Standards/specifications	cULus 61010-2-201

Potential distribution module ▶ Total number of potentials: 1 ▶ with 4 clamping points (0 V)



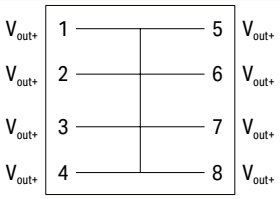
	Item No.	PU
	787-3861/000-1000	1



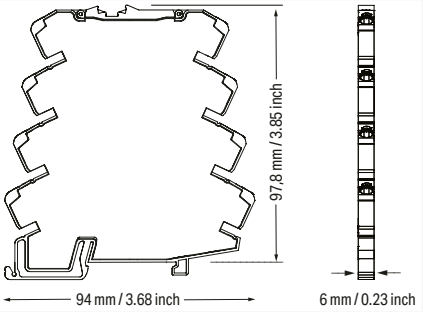
Note
The device is designed for use in SELV circuits.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	0 … 30 VDC
Limiting continuous current	20 A; 15 A (UL)
Specialty functions	with 4 clamping points (0 V)
Safety and protection/Environmental requirements	
Pollution degree	2
Protection type	IP20; per EN 60529
Protection class	III
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Total number of potentials	1
Clamping units	8
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 26 … 14 AWG
Fine-stranded conductor	0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE

Potential distribution module ▶ Total number of potentials: 1 ▶ with 4 clamping points (24 V)



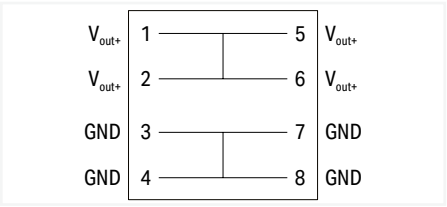
	Item No.	PU
	787-3861/000-2000	1



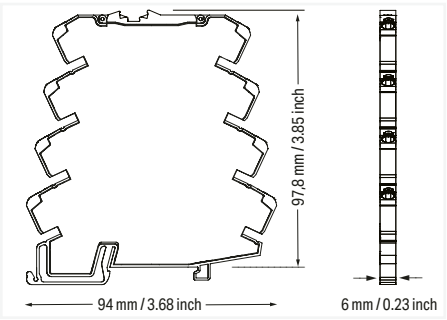
Note
The device is designed for use in SELV circuits.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	0 … 30 VDC
Limiting continuous current	20 A; 15 A (UL)
Specialty functions	with 4 clamping points (24 V)
Safety and protection/Environmental requirements	
Pollution degree	2
Protection type	IP20; per EN 60529
Protection class	III
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Total number of potentials	1
Clamping units	8
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 26 … 14 AWG
Fine-stranded conductor	0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE

Potential distribution module ▶ Total number of potentials: 2 ▶ with 4 clamping points each (0 V / 24 V)



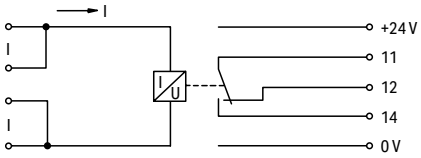
	Item No.	PU
	787-3861/000-3000	1



Note
The device is designed for use in SELV circuits.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	0 … 30 VDC
Limiting continuous current	20 A; 15 A (UL)
Specialty functions	with 4 clamping points each (0 V / 24 V)
Safety and protection/Environmental requirements	
Pollution degree	2
Protection type	IP20; per EN 60529
Protection class	III
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Connection data	
Total number of potentials	2
Clamping units	8
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 26 … 14 AWG
Fine-stranded conductor	0.34 … 2.5 mm² / 22 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE

Current flow monitoring module ▶ Measurement span (max.): 0.2 … 3 AAC ▶ Number of changeover/switchover contacts: 1



Item No.	PU
286-664	10

Electrical data	
Nominal operating voltage	24 VDC
Current consumption at nominal supply voltage	≤ 17 mA
Voltage drop	44 … 430 mV
Measurement span (max.)	0.2 … 3 AAC
Switching threshold (adjustable) min.	0.2 A
Response time	300 ms
Number of changeover/switchover contacts	1
Number of break/switch-off contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Status indicator	Red LED; Energized relay (current < switching threshold)

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength, input/output (AC, 1 min)	1.5 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	25 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-629	15 (1)

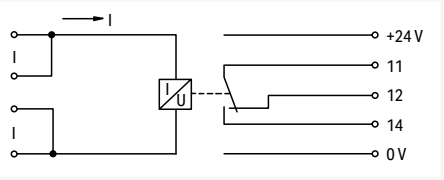
Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-639	15 (1)

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-765	15 (1)

Current flow monitoring module ▶ Measurement span (max.): 1 … 10 AAC ▶ Number of change-over/switchover contacts: 1



Item No.	PU
286-665	10

Electrical data	
Nominal operating voltage	24 VDC
Current consumption at nominal supply voltage	≤ 28 mA
Voltage drop	23 … 850 mV
Measurement span (max.)	1 … 10 AAC
Switching threshold (adjustable) min.	1 A
Response time	200 ms
Number of changeover/switchover contacts	1
Number of break/switch-off contacts	1
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA
Status indicator	Red LED; Energized relay (current < switching threshold)

Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength, input/output (AC, 1 min)	1.5 kVrms
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	25 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

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Accessories

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-629	15 (1)

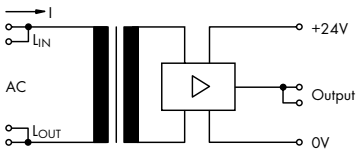
Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-639	15 (1)

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-765	15 (1)

Current flow monitoring module ▶ Measurement span (max.): 80 mA … 6 AAC (5 … 250 VAC)



	Item No.	PU
	286-661	10

Input	
Input signal (current)	AC 0 … 6 A
Input voltage (max.)	250 VAC
Frequency range	50 Hz
Voltage drop	10 … 100 mV
Response threshold	80 mA
Response time	40 ms
Power supply	
Nominal supply voltage U_S	24 VDC
Supply voltage range	±10 %
Current consumption at nominal supply voltage	≤ 22 mA (+ I_{DO})
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	3.8 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength, input/output (AC, 1 min)	2.2 kVrms
Insulation type	Basic insulation
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20
Ambient temperature (operation)	-25 … +40 °C
Ambient temperature (storage)	-40 … +70 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 30 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	20 mm x 52 mm x 82.5 mm
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-609	30 (1)

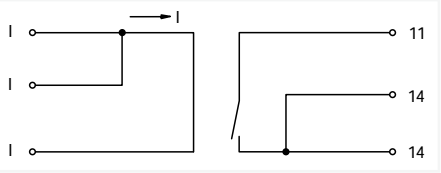
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

	Item No.	PU (SPU)
	280-763	25 (1)

Current flow monitoring module ▶ Measurement span (max.): 0.4 … 3.5 ADC (-20 … +40 °C); 0.4 … 3 ADC (-20 … +60 °C); 0.4 … 2 ADC (-20 … +70 °C) ▶ Number of make/switch-on contacts: 1



Item No.	PU
286-662	15

Electrical data	
Operating voltage	12 … 28 VDC
Voltage drop	24 … 240 mV
Measurement span (max.)	0.4 … 3.5 ADC (-20 … +40 °C); 0.4 … 3 ADC (-20 … +60 °C); 0.4 … 2 ADC (-20 … +70 °C)
Turn on/off point	0.35 A / 0.07 A
Response time	0.5 ms
Number of make/switch-on contacts	1
Limiting continuous current	0.5 A
Switching Voltage, Max.	200 VDC
Switching power (resistive) max.	DC 10 W

Safety and protection/Environmental requirements	
Dielectric strength, input/output (AC, 1 min)	1.5 kVrms
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

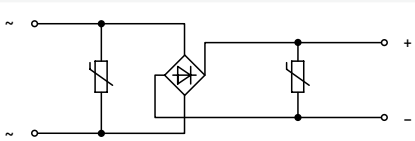
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

Bridge rectifier module ▶ Nominal operating voltage: 24 VAC ▶ with varistor protective circuit



Item No.	PU
286-830	15

Electrical data	
Nominal operating voltage	24 VAC
Operating voltage	≤ 35 VAC
Nominal current	1 A
Switch-on capacity	< 2200 µF
Specialty functions	with varistor protective circuit

Safety and protection/Environmental requirements	
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	15 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-609	30 (1)

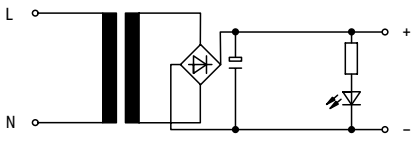
Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-619	30 (1)

Terminal block for pluggable modules; 6-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-763	25 (1)

S0 interface power supply unit ▶ Nominal operating voltage: 230 VAC ▶ S0 interface



Item No.	PU
286-742	10

Short description:
WAGO's compact module supplies power to passive S0 current meter interfaces to process the pulse readings of the meter.

Electrical data	
Nominal operating voltage	230 VAC
Nominal mains frequency range	50 Hz
Output voltage (DC) max.	27 V
Output current (max.)	27 mA
Specialty functions	S0 interface

Safety and protection/Environmental requirements	
Dielectric strength, input/output (AC, 1 min)	2.5 kVrms
Ambient temperature (operation)	0 … +70 °C
Ambient temperature (storage)	-40 … +80 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	25 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Standards and specifications	
Standards/specifications	EN 60664-1; EN 60742

Accessories

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-629	15 (1)

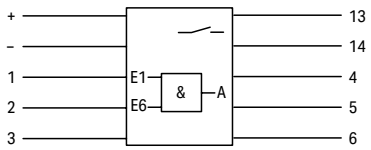
Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-639	15 (1)

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-765	15 (1)

AND gate module ▶ with 6 inputs



Item No.	PU
286-826	10

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage	24 … 27.5 VDC
Current consumption at nominal supply voltage	≤ 34.6 mA
Number of make/switch-on contacts	1
Limiting continuous current	3 A
Switching Voltage, Max.	250 VAC; 120 VDC
Switching power (resistive) max.	AC 750 VA; DC 120 W
Specialty functions	with 6 inputs
Safety and protection/Environmental requirements	
Rated Voltage	250 V
Rated impulse withstand voltage	4 kV
Pollution degree	2
Dielectric strength, input/output (AC, 1 min)	2.5 kVrms
Ambient temperature (operation)	-25 … +40 °C
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	25 mm x 52 mm x 82.5 mm
Note (dimensions)	Depth including carrier terminal block
Mounting type	Pluggable module for receptacle terminal blocks
Housing design	Plug for carrier terminal blocks

Accessories

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-629	15 (1)

Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

Item No.	PU (SPU)
280-639	15 (1)

Terminal block for pluggable modules; 10-pole; with 4-conductor terminal blocks; with marker carrier; with orange separator; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

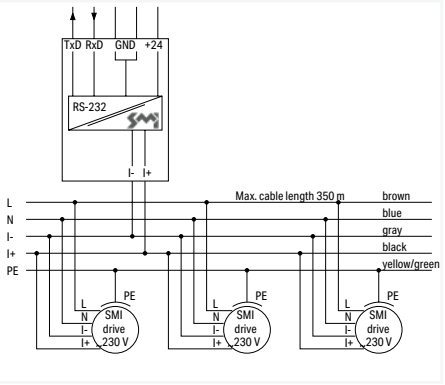
Item No.	PU (SPU)
280-765	15 (1)

Accessories

WSB marker card; WSB marker width: 4 mm; 10 strips with 10 markers/card		
Marking	Item No.	PU
K	209-782	50
1 ... 10 (10 x)	209-702	5
A1; A2; 13; 14	209-952	50
A1; A2; 11; 12	209-953	50
11; 12; 14; A1; A2; A2; 11; 12; 14	209-994	50
12; A1; A2; 24; 11; 14; 21; 22	209-995	50
A1; A1; A2; A2; 11; 12; 13; 14; 23; 24	209-693	50
12; A1; A2; 23; 24; 11; 13; 14; 21; 22	209-691	50
12; A1; A2; 23; 24; 11; 13; 14; 33; 34	209-690	50
14; A1; A2; 33; 34; 13; 23; 24; 43; 44	209-692	50
A1; A2; 32; 31; 34; 42; 41; 12; 11; 14; 22; 21; 24; 44	249-656	50
L+; 1; L-; L-; 11; 12; 13; 14	209-954	50
A1; A2; A3; 11; 12; 14	249-607	50
A1; A1; A2; A2; 12; 11; 11; 14	209-996	50
A1; A1; St; A2; A2; 12; 11; 11; 14	209-601	50
U1; U2; U3; U4; 0V; 12; 11; 11; 14; 14	209-951	50
U	209-789	50
A1; A2; A2; 1; 3; 2	209-685	50
A1; A2; A2; 1; 2; 2	209-686	50
A1+; A1+; A2-; A2-; 1; RL1; RL2; 2	209-955	50
A1+; A1+; A2-; A2-; 1+; 1+; A; 2-	249-651	50
+/-	209-552	50
1; 2; 3; 0V; +UB; OUT; ERR.; 0V	249-622	50
1; 2; 0V; +UB; OUT; ERR.; 0V	249-623	50
Lin; Lin; Lout; Lout; 24V; UA; UA; 0V	209-957	50
Lin; Lin; Lout; 11; 14; 14; Lin; Lin; Lout	249-654	50
Iin; Iin; Iout; Iout; 24V; 11; 12; 14; 0V	209-997	50
S	209-682	50
V	209-784	50
F1 ... F10	209-787	50
D	209-783	50
+; -; 1; 2; 3; 13; 14; 4; 5; 6	249-608	50
L; N; Ackn.; Failure; Test; N; 14; 24	249-606	50
A1; A2; Ackn.; Failure; 12; 11; 11; 14	249-653	50

WSB marker card; plain; WSB marker width: 4 mm; 10 strips with 10 markers/card		
Color	Item No.	PU
white	209-701	100
yellow	209-701/000-002	100
red	209-701/000-005	100
blue	209-701/000-006	100
gray	209-701/000-007	100
orange	209-701/000-012	100
light green	209-701/000-017	100
green	209-701/000-023	100
violet	209-701/000-024	100

Specialty electronic module ▶ SMI



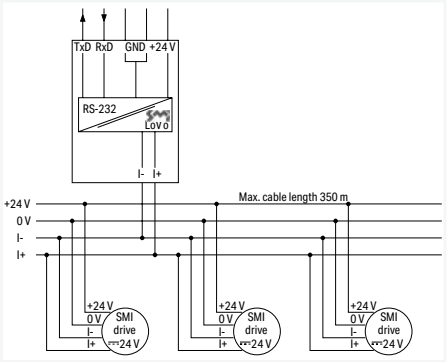
	Item No.	PU
	789-912	1

Short description:
WAGO's RS-232/SMI interface module offers a standard interface to SMI-compliant electrical drives. The interface represents a purely physical level conversion between the standard RS-232 interface and the SMI signal level. The interface module operates up to 16 SMI drives. The entire SMI range of functions can be used. The special WAGO-I/O-PRO function blocks communicate between applications and SMI drives. These function blocks support both single and group addressing, as well as status monitoring. The SMI Interface Module can be used with RS-232 onboard interfaces from 750 Series Programmable Fieldbus Controllers and with the serial 750-650/003-000 or 753-650/003-000 RS-232 Interface. The module must be supplied with an external 24 VDC power source. The 24 V power supply and RS-232 connectors are electrically isolated from the SMI connectors. There is no electrical isolation between power supply and RS-232. The module is DIN-35-rail mountable.

Notes on SMI:
SMI stands for "Standard Motor Interface," a standard interface for electrical drives. SMI was developed to connect drives with integrated electronic circuitry for applications in shutters and sunshade systems.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption at nominal supply voltage	≤ 55 mA (inside)
Number of SMI channels	1
Number of drives per channel	16
Status indicator	Green LED
Interface	RS-232 (interface input)
Specialty functions	SMI
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	0 … +50 °C
Ambient temperature (storage)	-25 … +85 °C
Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 804 Series
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Strip length	10 … 11 mm / 0.39 … 0.43 inches
Cable length (max.)	350 m (SMI bus; ≤ 3 m for data and power supply cable, RS-232)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	35 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Mounting position	any
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 50090-2-2

Specialty electronic module ▸ SMI LoVo



	Item No.	PU
	789-913	1

Short description:
WAGO's RS-232/SMI interface module offers a standard interface to SMI LoVo-compliant electrical drives. The interface represents a purely physical level conversion between the standard RS-232 interface and the SMI LoVo signal level. The interface module operates up to 16 SMI drives. The entire SMI range of functions can be used. The special WAGO-I/O-PRO function blocks communicate between applications and SMI LoVo drives. These function blocks support both single and group addressing, as well as status monitoring. Both 750 Series Programmable Fieldbus Controllers' RS-232 onboard interfaces and 750-650/003-000 or 753-650/003-000 Serial RS-232 Interfaces can connect to the SMI LoVo Interface Module.
The module must be supplied with an external 24 VDC power source. RS-232 and 24 V power supply are electrically isolated from the SMI LoVo connections. There is no electrical isolation between power supply and RS-232. The module is DIN-35-rail mountable.

Notes on SMI:
SMI stands for "Standard Motor Interface," a standard interface for electrical drives. SMI was developed to connect drives with integrated electronic circuitry for applications in shutters and sunshade systems.

Electrical data	
Nominal operating voltage	24 VDC
Operating voltage range	±10 %
Current consumption at nominal supply voltage	≤ 55 mA (inside)
Number of SMI LoVo channels	1
Number of drives per channel	16
Status indicator	Green LED
Interface	RS-232 (interface input)
Specialty functions	SMI LoVo
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	0 … +50 °C
Ambient temperature (storage)	-25 … +85 °C
Connection data	
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 804 Series
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Strip length	10 … 11 mm / 0.39 … 0.43 inches
Cable length (max.)	350 m (SMI bus; ≤ 3 m for data and power supply cable, RS-232)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	35 mm x 90 mm x 55 mm
Mounting type	DIN-35 rail
Mounting position	any
Housing design	DIN-rail-mount enclosure
Standards and specifications	
Standards/specifications	EN 50090-2-2

WAGO Empty Housings

WAGO Empty Housings

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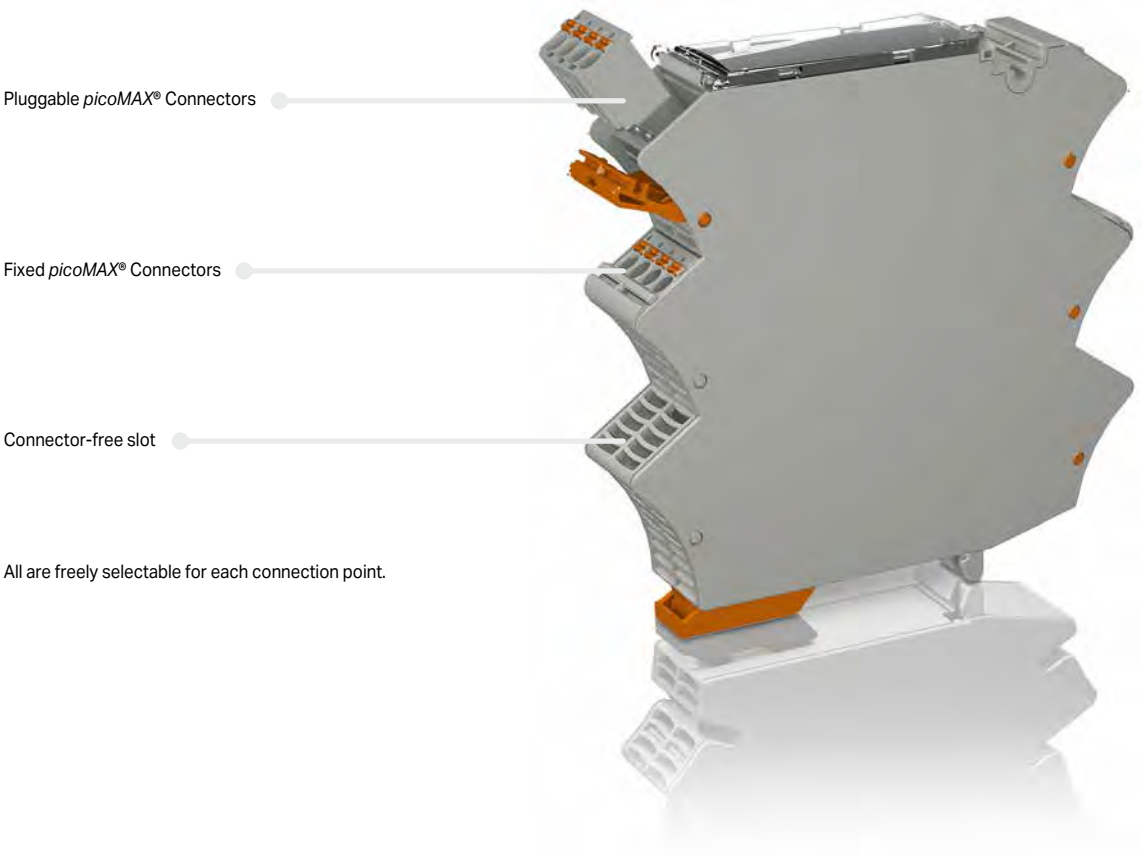
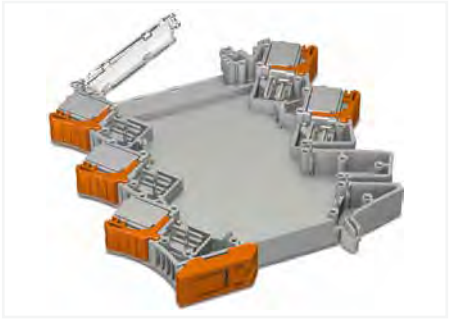
Modular Empty Housings
Overview and Configuration
2857 Series



All are freely selectable for each connection point.

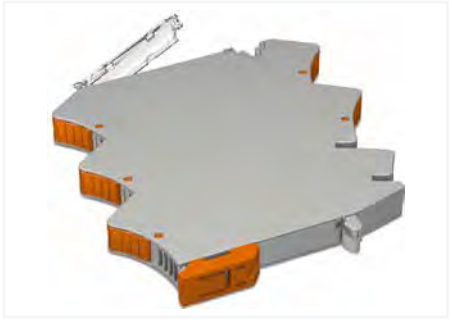
8

Supplied as a pre-assembled unit:



1. Pre-assembled unit

2. Insert and solder the PCB.



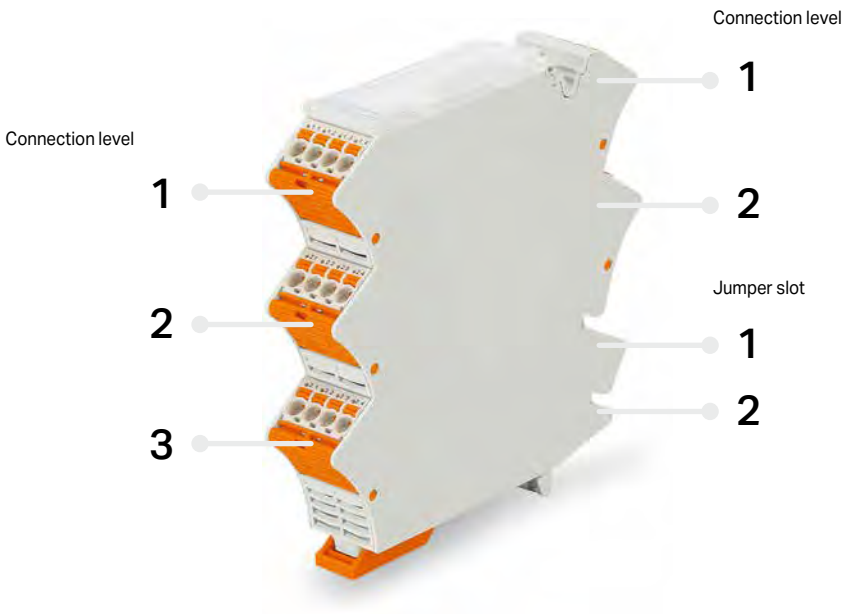
3. Snap on the side wall.

Housing configuration:

Housing width: 12.5 mm	2857-101	2857-102	2857-103	–
Housing width: 22.5 mm	2857-121	2857-122	2857-123	2857-124
Connection levels	2-2	3-2	3-3	1-1
Jumper slots	2-2	0-2	0-0	2-2

Mixed configuration (fixed/removable/empty slot) upon request!

Example of connection level and jumper slot assignment:



Connection levels	3-2
Jumper slots	0-2

Modular Empty Housings
2857 Series

- *picoMAX*® female connectors, with coding keys, 4-pole
- Pre-assembled unit
- Flexible conductor termination
- Customizable connection levels
- Various marking options available
- Sealable, transparent cover
- Commoning via jumpers (859-402)

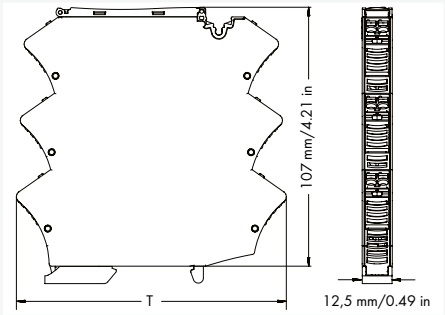
Electrical Data (*picoMAX*® 5.0 Female Connector)				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated surge voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage UL	300 V	-	300 V	
Rated current UL	15 A	-	10 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.2 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.2 … 2.5 mm²

Material Data (*picoMAX*® 5.0 Female Connector)	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Limit temperature range	-60 … +100 °C
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Material Data (Empty Housing)	
Housing material	PC
Flammability class	V0
Surrounding air temperature	-40 … +70 °C
Storage temperature	-40 … +85 °C

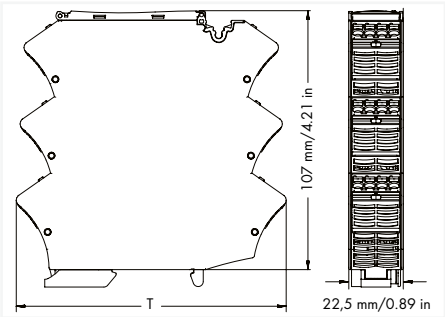
Modular Empty Housing ▸ for DIN-35 Rail
2857 Series



Housing width: 12.5 mm		
Description	Item No.	PU
2-2 connection levels, 2-2 jumper slots	2857-101	10
3-2 connection levels, 0-2 jumper slots	2857-102	10
3-3 connection levels, 0-0 jumper slots	2857-103	10

Technical Data: Empty Housing	
Dimensions (mm) W x H x D	12.5 x 107 x 108 (2857-101) 12.5 x 107 x 110 (2857-102) 12.5 x 107 x 112 (2857-103) Height from upper-edge of DIN-rail
Power loss	2 W

Accessories		
Description	Item No.	PU
Coding pin carrier	2092-1610	1
Jumper	859-402	1



Housing width: 22.5 mm		
Description	Item No.	PU
2-2 connection levels, 2-2 jumper slots	2857-121	5
3-2 connection levels, 0-2 jumper slots	2857-122	5
3-3 connection levels, 0-0 jumper slots	2857-123	5
1-1 connection levels, 2-2 jumper slots	2857-124	5

Technical Data: Empty Housing	
Dimensions (mm) W x H x D	22.5 x 107 x 108 (2857-121) 22.5 x 107 x 110 (2857-122) 22.5 x 107 x 112 (2857-123) 22.5 x 107 x 105 (2857-124) Height from upper-edge of DIN-rail
Power loss	3 W (max.)

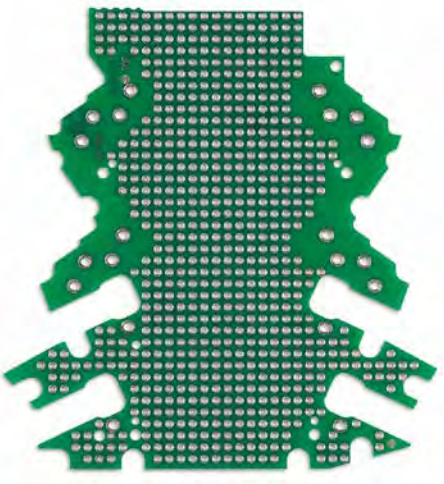
Accessories		
Description	Item No.	PU
Coding pin carrier	2092-1610	1
Jumper	859-402	1

8

PU = Packaging Unit; SPU = Subpackaging Unit

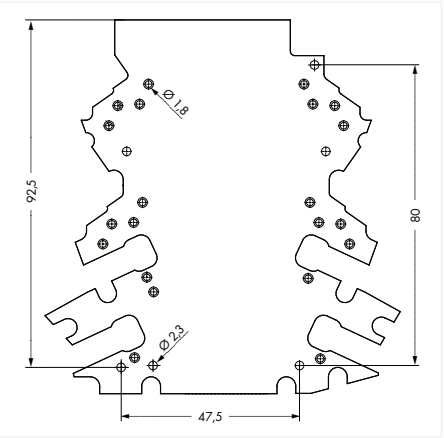
Stripboard ▸ for installation in 12.5 mm and 22.5 mm empty housings
2857 Series

Connection levels: 2-2 ▸ Jumper slots: 2-2

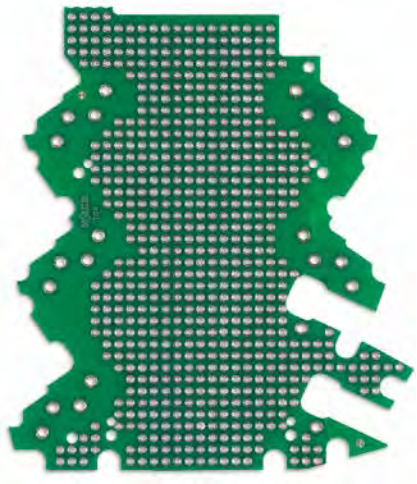


	Item No.	PU (SPU)
	2857-191/3140-000	5 (1)

Dimensions in mm

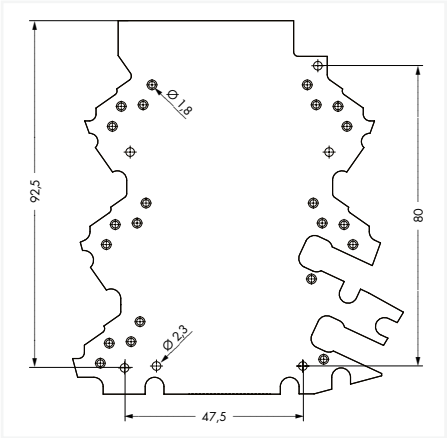


Connection levels: 3-2 ▸ Jumper slots: 0-2



	Item No.	PU (SPU)
	2857-192/3140-000	5 (1)

Dimensions in mm

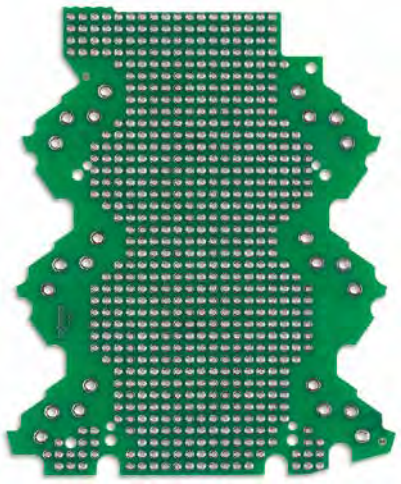


8

PU = Packaging Unit; SPU = Subpackaging Unit

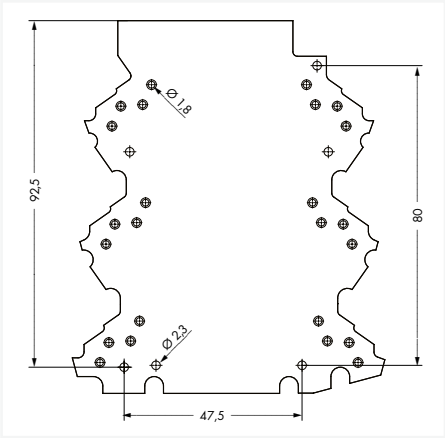
Stripboard ▸ for installation in 12.5 mm and 22.5 mm empty housings
2857 Series

Connection levels: 3-3 ▸ Jumper slots: 0-0

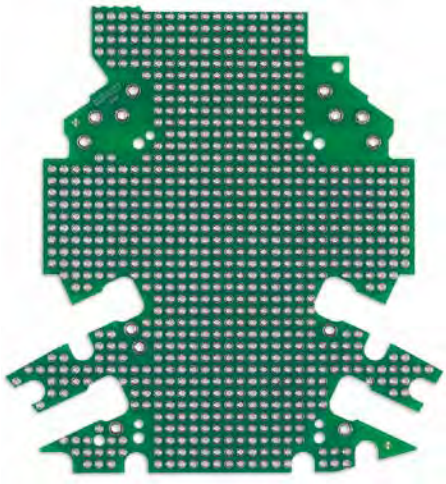


	Item No.	PU (SPU)
	2857-193/3140-000	5 (1)

Dimensions in mm

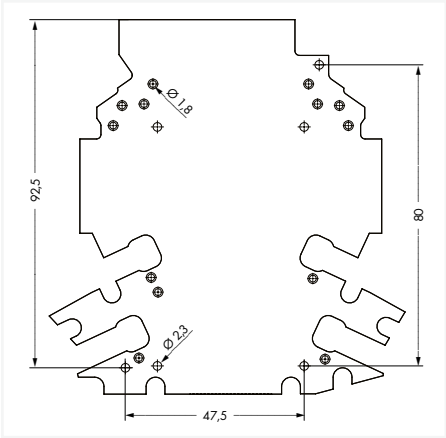


Connection levels: 1-1 ▸ Jumper slots: 2-2



	Item No.	PU (SPU)
	2857-194/3140-000	5 (1)

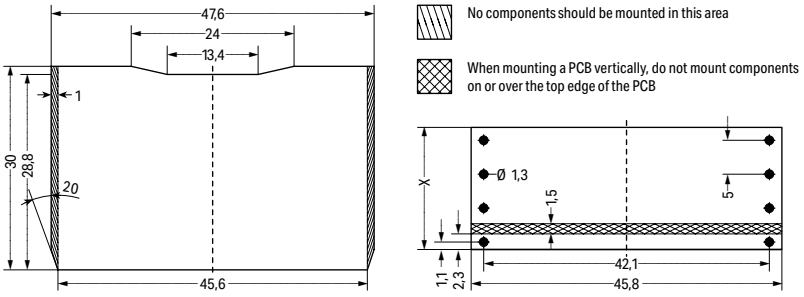
Dimensions in mm



8

PU = Packaging Unit; SPU = Subpackaging Unit

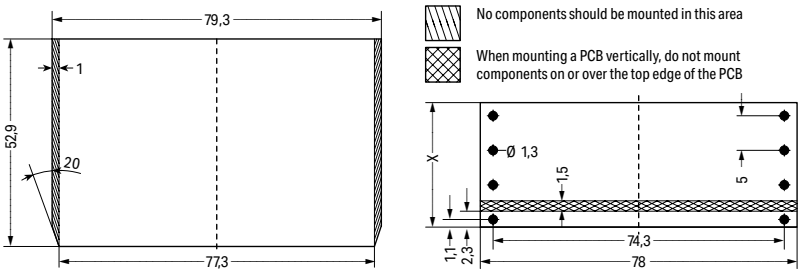
Empty Component Plug Housing for Receptacle Terminal Blocks ▸ for Self-Assembly
286 / 786 Series



Module width	10	15	20	25
Component height	4.2	9.2	14.2	19.2
X = total height of PCB	8	13	18	23

Empty Component Plug Housing ▸ 286 Series				
Type	Pole	Width	Item No.	PU
9	4	10 mm / 0.394 inch	**286-110**	1
10	6	15 mm / 0.591 inch	**286-111**	1
11	8	20 mm / 0.787 inch	**286-112**	1
12	10	25 mm / 0.984 inch	**286-113**	1

Technical Data	
Rated voltage	250 V
Rated surge voltage	4 kV
Pollution degree	3
Per contact	6 A
Module height	82.5 mm (from upper-edge of DIN-35 rail)



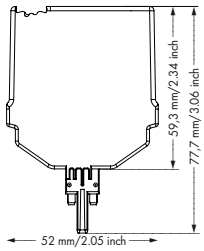
Module width	15	20	25
Component height	9.2	14.2	19.2
X = total height of PCB	13	18	23

Empty Component Plug Housing ▸ 786 Series				
Type	Pole	Width	Item No.	PU
14	6	15 mm / 0.591 inch	**786-101**	1
15	8	20 mm / 0.787 inch	**786-102**	1
16	10	25 mm / 0.984 inch	**786-103**	1

Technical Data	
Rated voltage	250 V
Rated surge voltage	4 kV
Pollution degree	3
Per contact	6 A
Module height	82.5 mm (from upper-edge of DIN-35 rail)

Empty Component Plug Housing for Receptacle Terminal Blocks ▸ for Self-Assembly
2002 / 2042 Series

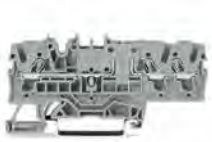
Empty Component Plug Housing ▸ TOPJOB® S ▸ 2002 Series ▸ gray				
Type	Pole	Width	Item No.	PU
1	2	5.2 mm / 0.205 inch	2002-800	100
2	2	10.4 mm / 0.409 inch	2002-810	50
3	4	10.4 mm / 0.409 inch	2002-820	50
4	2	10.4 mm / 0.409 inch	2002-880	50



Empty Component Plug Housing ▸ TOPJOB® S ▸ 2042 Series ▸ transparent housing ▸ with fiber optics			
Pole	Width	Item No.	PU
4	10.3 mm breit / 0.406 inch	2042-321	5
6	15.5 mm / 0.61 inch	2042-331	5
8	20.7 mm / 0.815 inch	2042-341	5
10	25.9 mm / 1.02 inch	2042-351	5

Accessories

2-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	PU
gray	2002-1661	50



3-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	PU
gray	2002-1761	50

4-conductor carrier terminal block; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	PU
gray	2002-1861	50

2-conductor carrier terminal block; with additional slot for adjacent jumper, for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²; Push-in CAGE CLAMP®		
Color	Item No.	PU
gray	2002-1961	50

Terminal Blocks
280 Series

Accessories

Terminal block for pluggable modules; 4-pole; with 2-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
12 mm	280-618	40

Terminal block for pluggable modules; 8-pole; with 4-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
12 mm	280-608	40

Terminal block for pluggable modules; 6-pole; with 2-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
17 mm	280-619	30

Terminal block for pluggable modules; 12-pole; with 4-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
17 mm	280-609	30

Terminal block for pluggable modules; 8-pole; with 2-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
22 mm	280-638	20

Terminal block for pluggable modules; 16-pole; with 4-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
22 mm	280-628	20

Terminal block for pluggable modules; 10-pole; with 2-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
27 mm	280-639	15

Terminal block for pluggable modules; 20-pole; with 4-conductor terminal blocks; with orange separator; for 35 x 15 mm and 35 x 7.5 mm DIN-rails; 2.5 mm²

Width	Item No.	PU
27 mm	280-629	15

Unlocking pliers for component plug housings

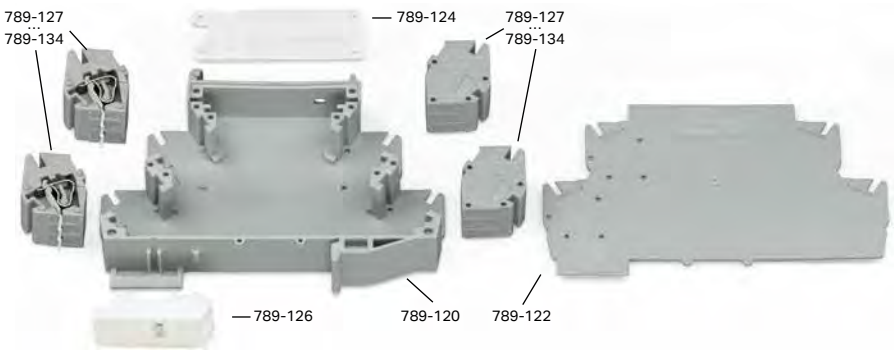
	Item No.	PU
	210-492	1

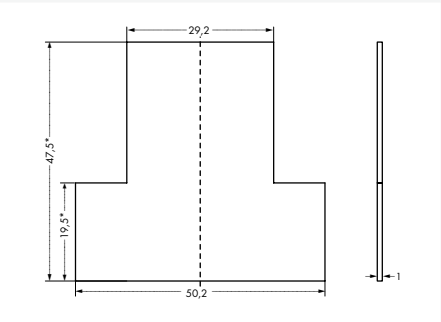
WSB marker card; white; for 5 … 17.5 mm terminal block width; 10 strips with 10 markers/card

Marking	Item No.	PU
plain	209-501	5
1 … 10	209-702	5

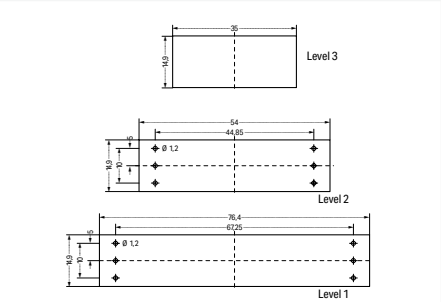
8

DIN-Rail-Mount Enclosures
789 Series

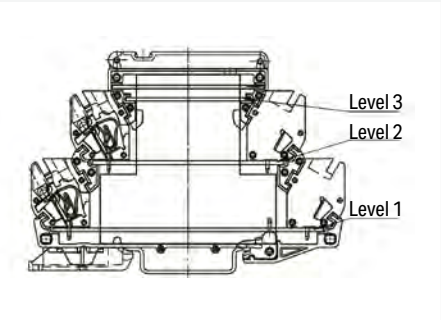




PCB dimensions, horizontal mounting
*less 4.5 mm when mounting a vertical PCB on level 1



PCB dimensions, vertical mounting:
(PCB thickness max. 1.5 mm) in level 1;
(PCB thickness max. 1 mm) in level 2 and 3

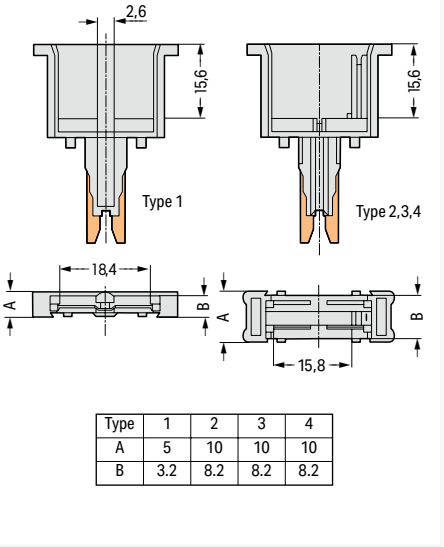


Universal Modular Component Plug Housing ▸ as rail-mount terminal block		
Description	Item No.	PU
Housing: 55 mm	789-120	1
Top cover: 55 mm	789-122	1
Cover; transparent	789-124	1
Release mechanism	789-126	1
Compact terminal block; 3-pole: CCC*	789-127	1
Compact terminal block; 3-pole: COC*	789-128	1
Compact terminal block; 3-pole: CCO*	789-129	1
Compact terminal block; 3-pole: OCC*	789-130	1
Compact terminal block; 3-pole: OCO*	789-131	1
Compact terminal block; 3-pole: OOO*	789-132	1
Compact terminal block; 3-pole: OOC*	789-133	1
Compact terminal block; 3-pole: COO*	789-134	1

*C = with clamping spring; O = without clamping spring, enclosure open on the right side

Electrical Data	
Rated nominal voltage	250 V
Rated surge voltage	4 kV
Safety and Protection	
Pollution degree	3
Protection class	IP20
Connection Data	
Width	17.5 mm
Height	55 mm
Depth	90 mm
Dimensions (note)	Height from upper-edge of DIN-rail
Physical Data	
Connection technology	CAGE CLAMP®
Cross sections	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Mechanical Data	
Mounting position	Any
Material Data	
Housing material	PA 66
Flammability class	V0
Color	Gray (similar to RAL 7038)
Environmental Requirements	
Surrounding air temperature (operation)	-25 … +70 °C
Surrounding air temperature (storage)	-40 … +85 °C

Empty Component Plug Housing for Carrier Terminal Blocks ▸ for Self-Assembly
280 Series



Type	1	2	3	4
A	5	10	10	10
B	3.2	8.2	8.2	8.2

Empty Component Plug Housing

	Description	Item No.	PU
Type 1	2-pole; 5 mm / 0.197 inch wide; Plug inside dimensions (W/H/D): 3.2/15/15 mm	280-801	100
Type 2	2-pole; 10 mm / 0.394 inch wide; Plug inside dimensions (W/H/D): 8.2/15/15 mm	280-802	50
Type 3	4-pole; 10 mm / 0.394 inch wide; Plug inside dimensions (W/H/D): 8.2/15/15 mm	280-804	50

Technical Data

Rated voltage	250 V
Rated surge voltage	4 kV
Pollution degree	3
Per contact	6 A (max.)

Accessories

2-conductor carrier terminal block; Marking on both sides; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-616	100

2-conductor carrier terminal block; Marking in center position; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

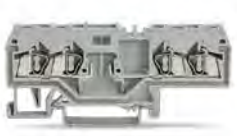
Item No.	PU
280-916	100

3-conductor carrier terminal block; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-610	100

4-conductor carrier terminal block; Marking on both sides; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-606	100



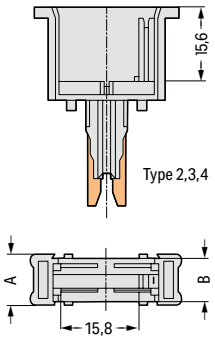
4-conductor carrier terminal block; Marking in center position; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-686	100

Empty Component Plug Housing for Through Terminal Blocks ▸ for Self-Assembly
280 Series

Empty Component Plug Housing			
	Description	Item No.	PU
Type 4	2-pole; 10 mm / 0.394 inch wide; Plug inside dimensions (W/H/D): 8.2/15/15 mm	280-803	50

Technical Data	
Rated voltage	250 V
Rated surge voltage	4 kV
Pollution degree	3
Per contact	6 A (max.)



Type	1	2	3	4
A	5	10	10	10
B	3.2	8.2	8.2	8.2

Accessories

2-conductor through terminal block; Marking on both sides; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-601	100

2-conductor through terminal block; Marking in center position; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-901	100

3-conductor through terminal block; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-681	100

4-conductor through terminal block; Marking on both sides; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-621	100

4-conductor through terminal block; Marking in center position; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

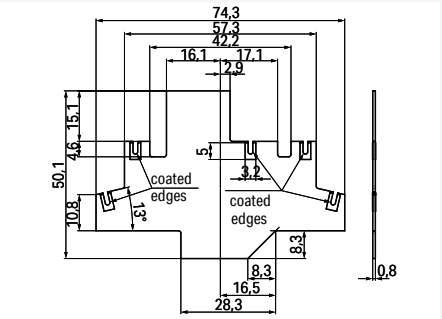
Item No.	PU
280-833	100

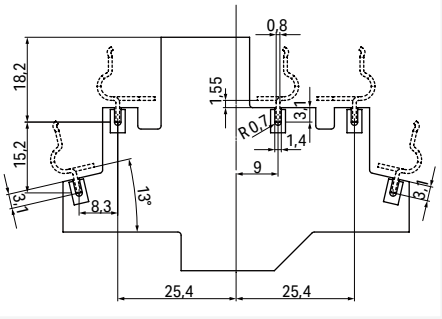
2-conductor through terminal block; gray; Terminal block width: 5 mm / 0.197 inch; Cross sections: 0.08 … 2.5 mm² / 28 … 14 AWG; Strip length: 8 … 9 mm / 0.31 … 0.35 inch

Item No.	PU
280-101	100

Empty Rail-Mount Terminal Block Housing
859 Series

Universal Modular Component Plug Housing as Rail-Mount Terminal Block		
	Item No.	PU
	859-110	1





PCB dimensions

Safety and Protection	
Protection class	IP00
Protection class with end and intermediate plate	IP20
Connection Data	
Connection points (number)	5
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Physical Data	
Width	6 mm / 0.236 in
Height from upper-edge of DIN-rail	56 mm / 2.205 in
Depth	91 mm / 3.583 in
Mechanical Data	
Mounting type	DIN-35 rail
Mounting position	Any
Material Data	
Color	Gray
Flammability class per UL94	V0
Housing material	PA 6.6
Weight	14.4 g
Environmental Requirements	
Surrounding air temperature (operation)	-25 ⋯ +70 °C
Surrounding air temperature (storage)	-40 ⋯ +85 °C

8

Accessories

End and intermediate plate; 1 mm thick; gray

Item No.	PU
859-525	100 (25)

Push-in type jumper bar; light gray; insulated; 18 A

Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)

Item no. suffix for colored push-in type jumper bars	
yellow	… /000-029
red	… /000-005
blue	… /000-006

Test pin; 1 mm Ø; with solder connection for test cable

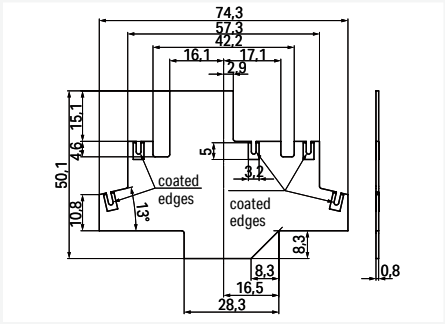
Item No.	PU
735-500	100 (1)

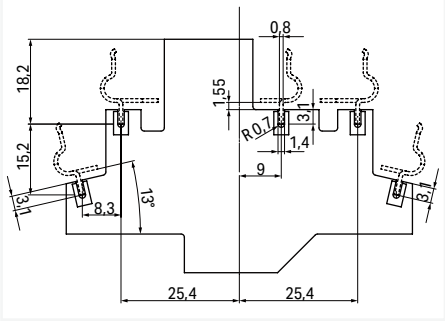
Empty Rail-Mount Terminal Block Housing
859 Series

Safety and Protection	
Protection class	IP00
Protection class with end and intermediate plate	IP20
Connection Data	
Connection points (number)	5
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Physical Data	
Width	8 mm / 0.315 in
Height from upper-edge of DIN-rail	56 mm / 2.205 in
Depth	91 mm / 3.583 in
Mechanical Data	
Mounting type	DIN-35 rail
Mounting position	Any
Material Data	
Color	Gray
Flammability class per UL94	V0
Housing material	PA 6.6
Weight	14.4 g
Environmental Requirements	
Surrounding air temperature (operation)	-25 … +70 °C
Surrounding air temperature (storage)	-40 … +85 °C

Frame to Enlarge Terminal block Width

Item No.	PU
859-501	1





PCB dimensions

8

Accessories

End and intermediate plate; 1 mm thick; gray

Item No.	PU
859-525	100 (25)

Push-in type jumper bar; light gray; insulated; 18 A

Description	Item No.	PU
2-way	859-402	200 (8 x 25)
3-way	859-403	200 (8 x 25)
4-way	859-404	200 (8 x 25)
5-way	859-405	200 (8 x 25)
6-way	859-406	100 (4 x 25)
7-way	859-407	100 (4 x 25)
8-way	859-408	100 (4 x 25)
9-way	859-409	100 (4 x 25)
10-way	859-410	100 (4 x 25)

Item no. suffix for colored push-in type jumper bars	
yellow	… /000-029
red	… /000-005
blue	… /000-006

Test pin; 1 mm Ø; with solder connection for test cable

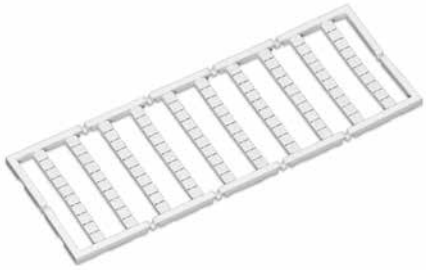
Item No.	PU
735-500	100 (1)

Accessories

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade		
	Item No.	PU
	210-720	50

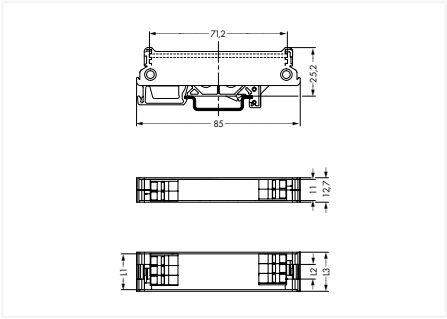
Felt-tip pen; for permanent marking		
	Item No.	PU
	210-110	200

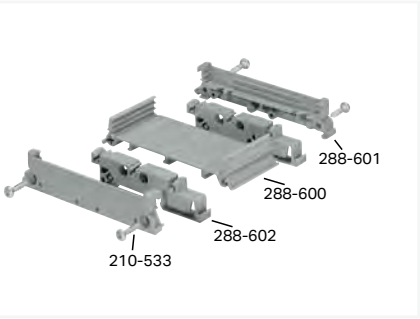
Push-in type jumper bar; 12-way; Nominal current: 16 A; uninsulated		
	Item No.	PU
	789-112	100



Mini-WSB marker card; Marker width: 5 mm; 10 strips with 10 markers/card		
Marking	Item No.	PU
plain	248-501	50
1 … 10 (10 x)	248-502	5
11 … 20 (10 x)	248-503	5
21 … 30 (10 x)	248-504	5
31 … 40 (10 x)	248-505	5
41 … 50 (10 x)	248-506	5
1 … 50 (2 x)	248-566	5
K1 … K10	248-450	50
K11 … K20	248-451	50
K100	248-452	50
U1 … U10	248-453	50
U11 … U20	248-454	50
U100	248-455	50

DIN-Rail Mount PCB Carriers
288 Series

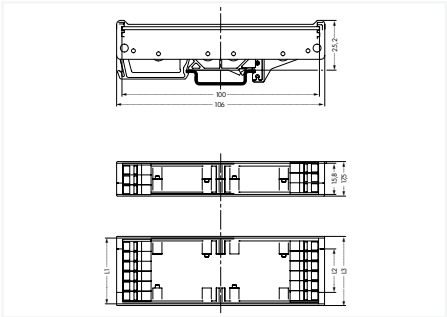


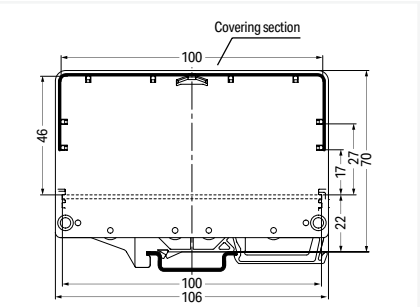


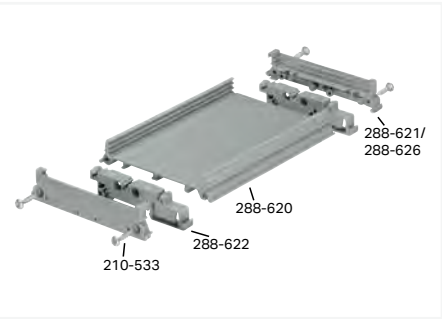
Mounting Carrier, Size 1

Length calculation for a complete mounting carrier:
PCB length: L1
Base length: L2 = L1 - 11 mm
Mounting carrier length: L3 = L1 + 2 mm
Lateral cover, size 1, 6.35 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness), ± 0.2 mm (length/width), -0.1/+0.3 for milling contours

Mounting Carrier ▸ Size 1		
Description	Item No.	PU
Lateral cover; Type 1; small; 6.35 mm thick	288-601	1
Foot for DIN-35 rail	288-602	1
Carrier base; Size 1; 1 m long	288-600	1







Mounting Carrier, Size 2

Length calculation for a complete mounting carrier:
PCB length: L1
Base length: L2 = L1 - 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1
Lateral cover, size 2, 8.75 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness), ± 0.2 mm (length/width), -0.1/+0.3 for milling contours

Mounting Carrier ▸ Size 2		
Description	Item No.	PU
Lateral cover; Type 2; small; 8.75 mm thick	288-621	1
Lateral cover; Type 2; large; 8.75 mm thick	288-626	1
Foot for DIN-35 rail	288-622	1
Carrier base; Size 2; 1 m long	288-620	1
Cover; Size 2; 1 mm long	288-627	1

8

Accessories; for all mounting carriers

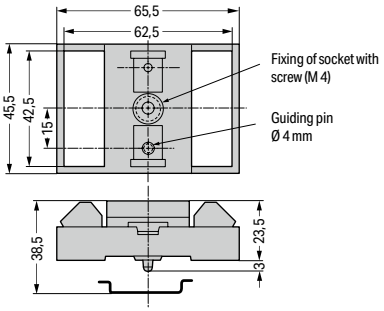
Marking strip

Description	Item No.	PU
Phillips screw 2.9 x 13*	210-533	25
Marking strip 7.5 x 0.5 mm; 1 m long; translucent	709-196	1

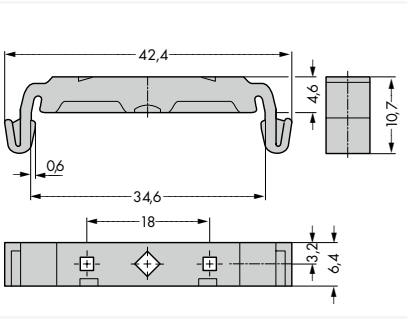
* Two screws per lateral cover; for a module length of 35 mm or higher; lateral covers must be riveted for smaller modules. Rivet length depends on module length (rivets are not offered by WAGO).

PU = Packaging Unit; SPU = Subpackaging Unit

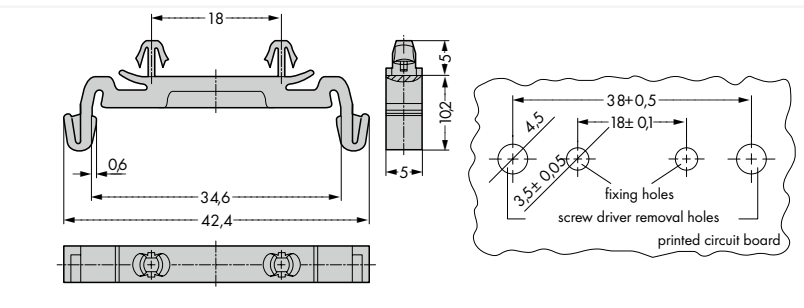
DIN-Rail-Mount PCB Carriers and Feet
288 / 209 Series



Mounting carrier			
Description		Item No.	PU
Mounting carrier	For screw or DIN-rail mounting via universal snap-on type mounting feet (to be ordered separately)	288-001	1
Universal mounting foot	Snap-fit type; for DIN-15, DIN-32 and DIN-35 rails	288-002	10
Mounting carrier for PCBs	Suitable for a "Eurocard" PCB (100 x 160 mm)	288-003	1

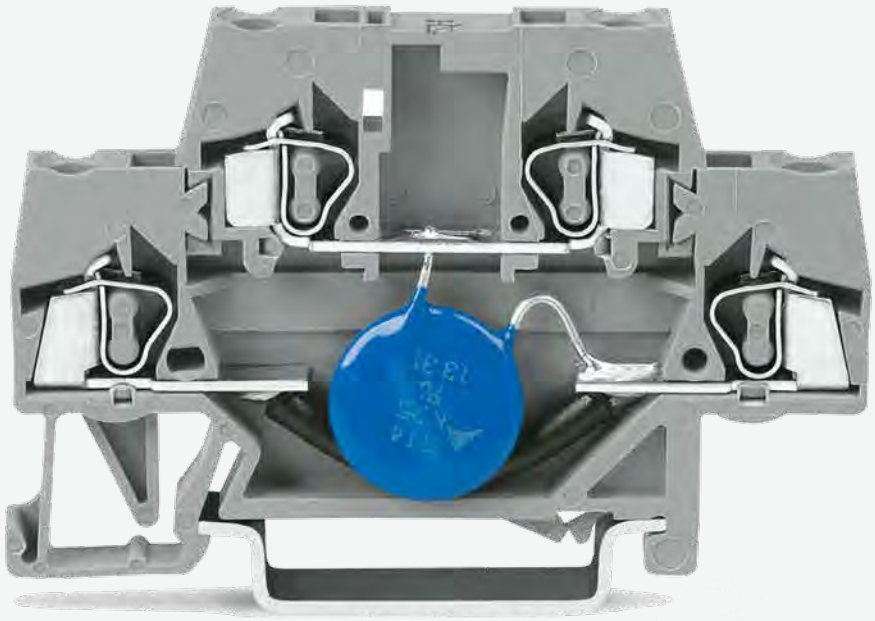


Mounting foot			
Description		Item No.	PU
Mounting foot		209-120	25
Mounting screw	for mounting foot (209-1209	209-119	50



Mounting foot			
Description		Item No.	PU
Mounting foot		209-188	25

PU = Packaging Unit; SPU = Subpackaging Unit



WAGO Protective Devices and Electronics

WAGO Protective Devices and Electronics

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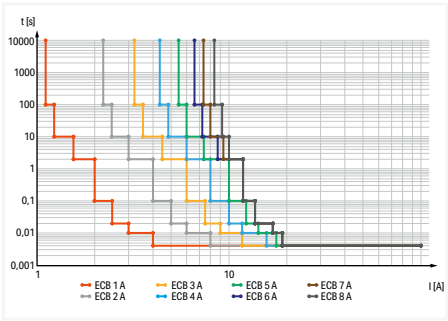
WAGO Electronic Circuit Breakers Selection Guide

Input/ Output	Output			Communication							Standards/ specifications				Dimensions and Environmental Requirements				
Nominal voltage	Channels	Nominal current [ADC]	Active current limitation	Signal, high-side switching	Signal, low-side switching	Potential-free Signal	Manchester Protocol	Remote control input	IO-Link	NEC Class 2	UL 61010-2-201	UL 2367	UL 508	DNV	Width	Height	Depth from upper-edge of DIN-rail	Surrounding air temperature	Item no.
12 VDC	4	2 … 10 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-100
24 VDC	1	0,5 … 4 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/004-020
24 VDC	1	0,5 … 4 A		■				■		■	■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/004-1020
24 VDC	1	0,5 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/050-000
24 VDC	1	0,5 A		■				■		■	■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/050-1000
24 VDC	1	1 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/100-000
24 VDC	1	1 A		■				■		■	■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/100-1000
24 VDC	1	1 … 8 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/108-020
24 VDC	1	2 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/200-000
24 VDC	1	2 A		■				■		■	■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/200-1000
24 VDC	1	4 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/400-000
24 VDC	1	4 A		■				■		■	■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/400-1000
24 VDC	1	6 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/600-000
24 VDC	1	8 A		■				■			■	■		■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-3861/800-000
24 VDC	1	0,5 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/050-000
24 VDC	1	1 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/100-000
24 VDC	1	1… 8 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/108-020
24 VDC	1	2 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/200-000
24 VDC	1	4 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/400-000
24 VDC	1	6 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +70 °C	787-2861/600-000
24 VDC	1	8 A		■				■			■			■	6 mm	94 mm	97.8 mm	-25 … +65 °C	787-2861/800-000
24 VDC	2	2 … 10 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662
24 VDC	2	2 … 10 A		■		■		■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662/000-054
24 VDC	2	3,8 A / 3,2 A	■	■			■	■		■		■	■		45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662/004-1000
24 VDC	2	0,5 … 6 A	■	■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662/006-1000
24 VDC	2	1 … 6 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662/106-000
24 VDC	4	2 … 10 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664
24 VDC	4	2 … 10 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-004
24 VDC	4	2 … 10 A			■		■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-011
24 VDC	4	2 … 10 A		■		■		■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-054
24 VDC	4	1 … 10 A							■			■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-080
24 VDC	4	3,8 A / 3,2 A	■	■			■	■		■		■	■		45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/004-1000
24 VDC	4	0,5 … 6 A	■	■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/006-1000
24 VDC	4	0,5 … 6 A	■	■		■		■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/006-1054
24 VDC	4	1 … 6 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/106-000
24 VDC	4	1 … 6 A			■		■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/106-011
24 VDC	4	2 … 12 A	■	■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/212-1000
24 VDC	8	2 … 10 A		■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668
24 VDC	8	2 … 10 A		■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/000-004
24 VDC	8	2 … 10 A		■		■		■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/000-054
24 VDC	8	1 … 10 A							■			■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/000-080
24 VDC	8	0,5 … 6 A	■	■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/006-1000
24 VDC	8	0,5 … 6 A	■	■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/006-1054
24 VDC	8	1 … 6 A		■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/106-000
24 VDC	8	1 … 6 A		■		■		■						■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/106-054
48 VDC	2	2 … 10 A		■		■		■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1662/000-250
48 VDC	4	2 … 10 A		■			■	■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-200
48 VDC	4	2 … 10 A		■		■		■				■	■	■	45 mm	90 mm	115.5 mm	-25 … +70 °C	787-1664/000-250
48 VDC	8	2 … 10 A		■			■	■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/000-200
48 VDC	8	2 … 10 A		■		■		■				■	■	■	42 mm	127 mm	142.5 mm	-25 … +70 °C	787-1668/000-250

Intuitive status display

- Output channels with backlit buttons for on/off switching and acknowledgement
- Integrated, multi-color LEDs indicate the operating status of each channel



Trip characteristics

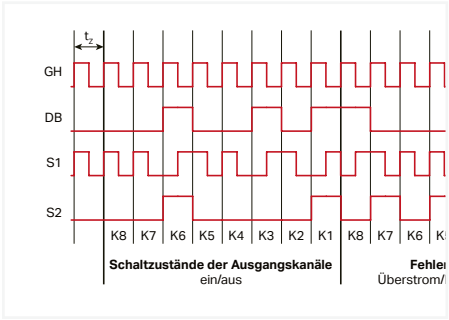
- Reliable, precise disconnection in case of overcurrent or short circuit
- Nominal currents can be set separately for each channel in 1 A, 2 A, 4 A, 6 A and 10 A increments
- Parallel connection of channels for higher nominal currents of 11, 12, 14 and 16 A

Rotary switch

- Nominal current can be individually adjusted for each channel 1 … 16 A
- The setting is visible even when no voltage is applied
- Switchable electronic key lock protects against incorrect operation

Communication 1.0

- Remote digital input DI for switching and resetting all tripped channels
- Digital output DO as a group message indicating whether one of the channels was tripped by an overcurrent



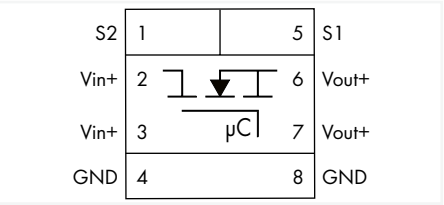
Communication 2.0

- Remote digital input MDI (S1) for switching specific channels on and off via pulse sequence(Manchester protocol)
- Digital output MDO (S2) for transmitting the current status (on/off/tripped/overcurrent) of each individual channel
- Optional transmission of input voltage and output/nominal current value for each channel

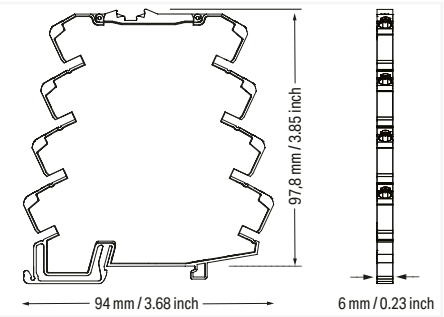
Communication 3.0

- Modbus RTU or IO-Link interface
- Readout of status, nominal current setting, current voltage values and current values for each channel
- Setting the nominal current, as well as switch-on/off and reset of individual channels

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 0.5 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



	Item No.	PU
	787-2861/050-000	1

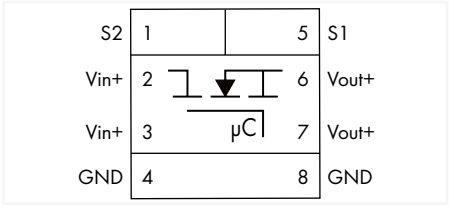


Features:

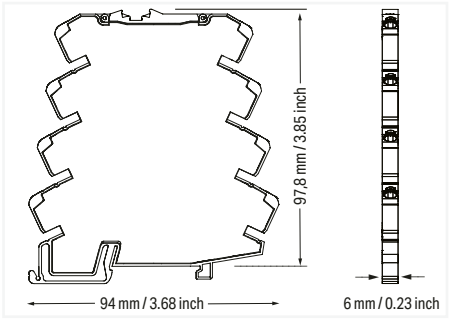
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 50 mV
Nominal output current $I_{o\,nom}$	1 x 0.5 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,263,074 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable) ▶ 1 x Status LED (green/yellow/red/blue/violet); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



Item No.	PU
787-2861/108-020	1

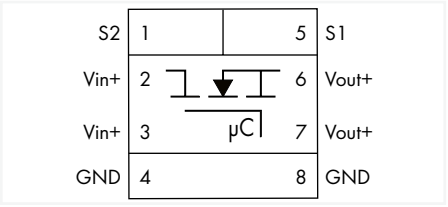


Features:

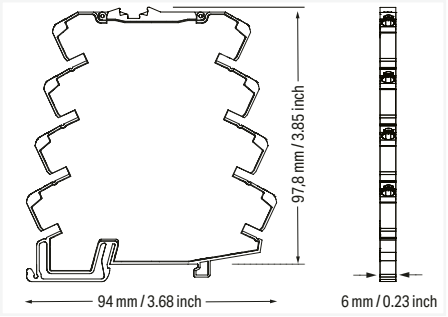
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (8 A)
Nominal output current $I_{o\,nom}$	1 x 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable)
Default Setting	DC 1 A; switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue/violet); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested); derating must be observed)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	See instruction manual
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 1 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



	Item No.	PU
	787-2861/100-000	1

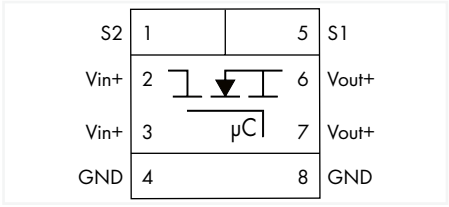


Features:

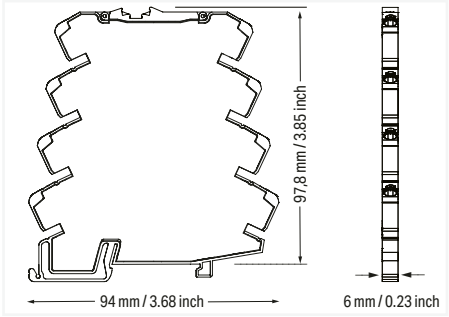
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (1 A)
Nominal output current $I_{o\,nom}$	1 x 1 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,263,074 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 2 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



Item No.	PU
787-2861/200-000	1

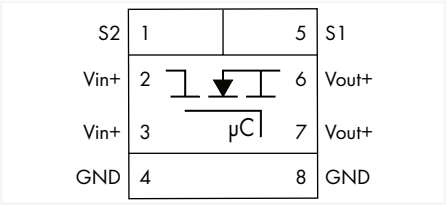


Features:

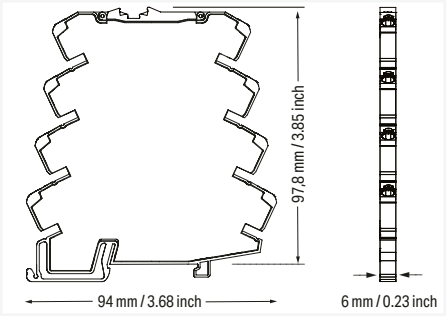
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (2 A)
Nominal output current $I_{o\,nom}$	1 x 2 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,262,142 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 4 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



	Item No.	PU
	787-2861/400-000	1

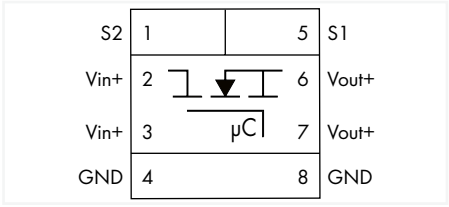


Features:

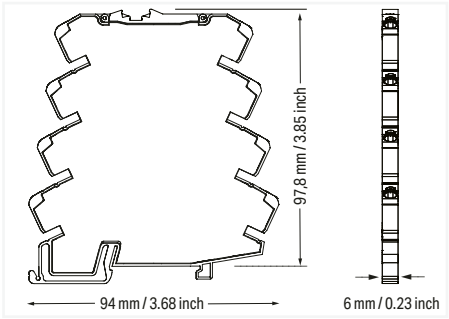
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (4 A)
Nominal output current $I_{o\,nom}$	1 x 4 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,258,733 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 6 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



Item No.	PU
787-2861/600-000	1

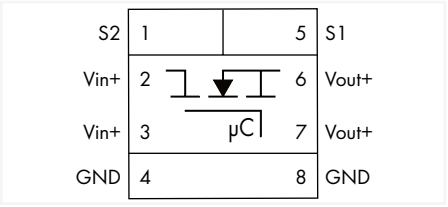


Features:

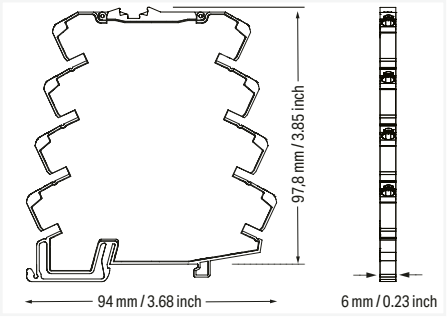
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (6 A)
Nominal output current $I_{o\,nom}$	1 x 6 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,253,313 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C (device starts at -40 °C (type-tested); derating must be observed)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	See instruction manual
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 8 A (fixed setting) ▶ 1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)



	Item No.	PU
	787-2861/800-000	1

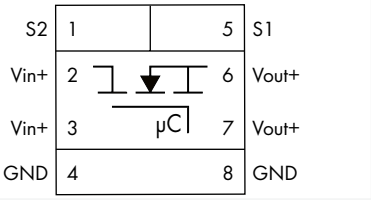


Features:

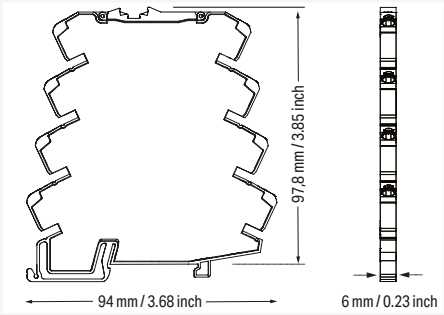
- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 25 mV (8 A)
Nominal output current $I_{o\,nom}$	1 x 8 A (fixed setting)
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 170 ms / max. 500 ms)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red/blue); 1 x Control input; 1 x Active signal output (U_i, max. 4 mA)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	18 … 30 VDC signal, switches on/off and resets the channel
Efficiency/power losses	
Power loss P_l	≤ 0.36 W
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 15 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,245,816 h (per MIL-HDBK-217F2)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +65 °C (device starts at -40 °C (type-tested); derating must be observed)
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	See instruction manual
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 28 … 14 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



Item No.	PU
787-3861/004-020	1

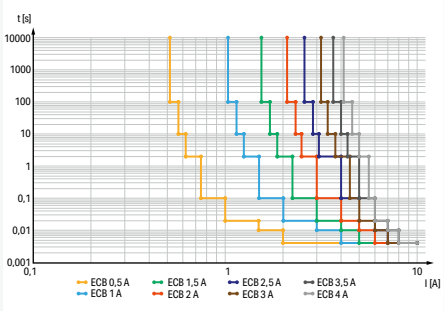


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

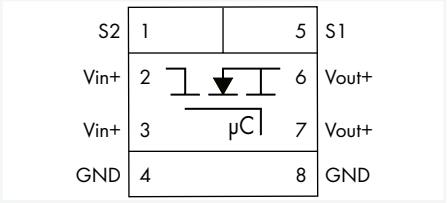
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 40 mV (0.5 A); ≤ 80 mV (1 A); ≤ 120 mV (1.5 A); ≤ 160 mV (2 A); ≤ 200 mV (2.5 A); ≤ 240 mV (3 A); ≤ 280 mV (3.5 A); ≤ 320 mV (4 A)
Nominal output current $I_{o\,nom}$	1 x 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable)
Default Setting	DC 0.5 A; switched off
Trip time	10 ms … 90 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	807,840 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 24 … 14 AWG (1 A / 1.5 A); 22 … 14 AWG (2 A / 2.5 A); 20 … 14 AWG (3 A / 3.5 A / 4 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered ▶ NEC Class 2



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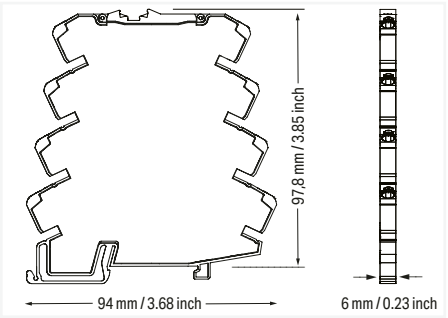
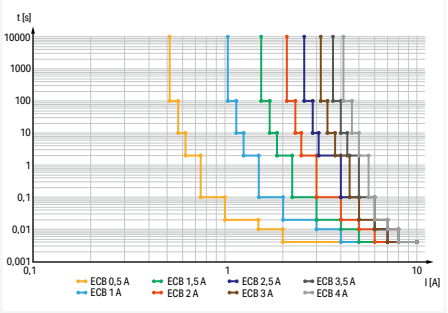


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 7,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

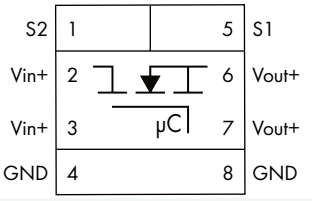
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 40 mV (0.5 A); ≤ 80 mV (1 A); ≤ 120 mV (1.5 A); ≤ 160 mV (2 A); ≤ 200 mV (2.5 A); ≤ 240 mV (3 A); ≤ 280 mV (3.5 A); ≤ 320 mV (4 A)
Nominal output current $I_{o\,nom}$	1 x 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable)
Default Setting	DC 0.5 A; switched off
Trip time	10 ms … 90 s (load-dependent)
Switch-on capacity	< 7000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 4 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	807,840 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 24 … 14 AWG (1 A / 1.5 A); 22 … 14 AWG (2 A / 2.5 A); 20 … 14 AWG (3 A / 3.5 A / 4 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 0.5 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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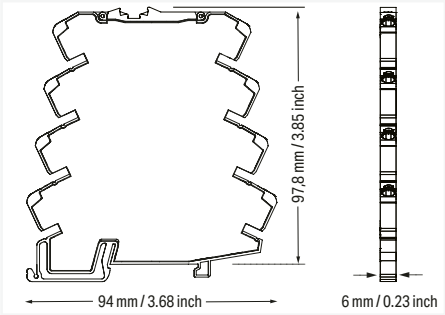
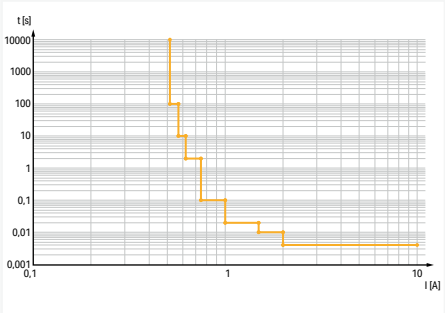


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

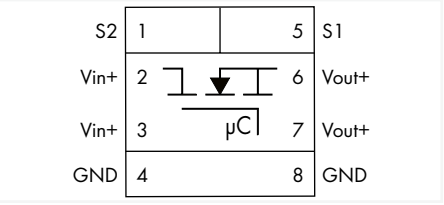
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 40 mV
Nominal output current $I_{o\,nom}$	1 x 0.5 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 0.5 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered ▶ NEC Class 2



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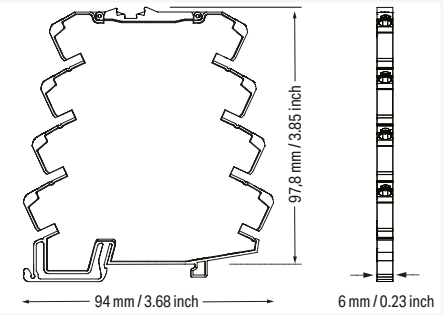
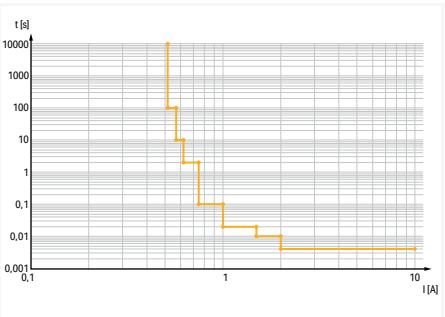


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 5,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

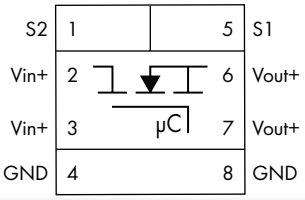
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 40 mV
Nominal output current $I_{o\,nom}$	1 x 0.5 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	< 5000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Current limitation	No
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	96 %
Circuit protection	
Internal fuse	T 4 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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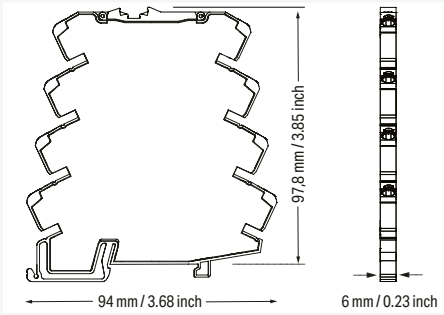
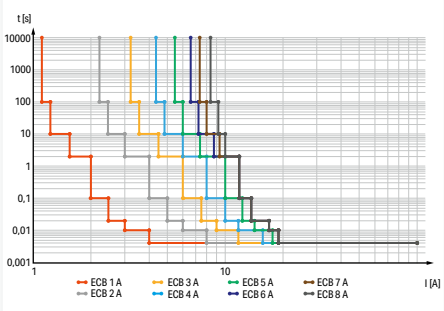


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

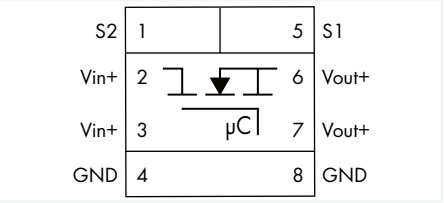
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 80 mV (1 A); ≤ 160 mV (2 A); ≤ 240 mV (3 A); ≤ 320 mV (4 A); ≤ 150 mV (5 A); ≤ 180 mV (6 A); ≤ 210 mV (7 A); ≤ 240 mV (8 A)
Nominal output current $I_{o\,nom}$	1 x 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable)
Default Setting	DC 1 A; switched off
Trip time	10 ms … 90 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 10 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	807,840 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 24 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 24 … 14 AWG (1 A); 22 … 14 AWG (2 A); 20 … 14 AWG (3 A / 4 A); 18 … 14 AWG (5 A / 6 A); 16 … 14 AWG (7 A / 8 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 1 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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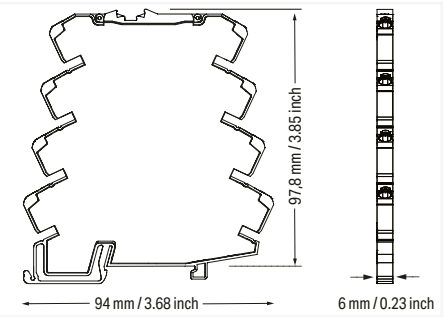
	787-3861/100-000	1

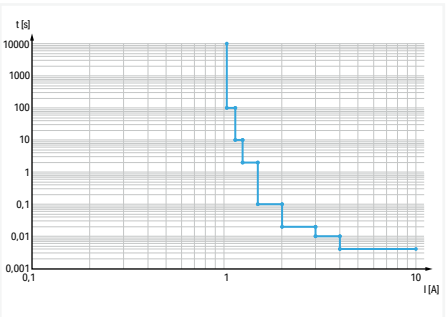


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

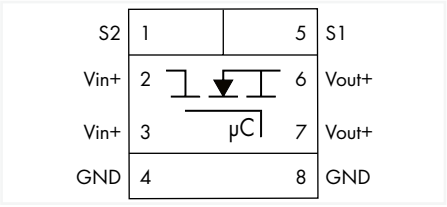
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 80 mV
Nominal output current $I_{o\,nom}$	1 x 1 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 24 … 14 AWG (1 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 1 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered ▶ NEC Class 2



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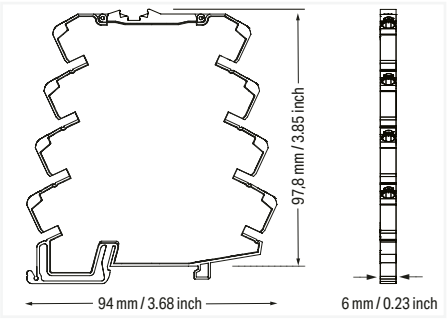
	787-3861/100-1000	1

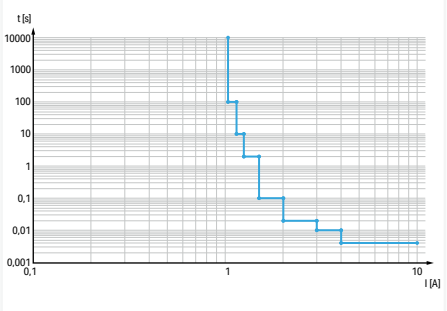


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 6,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

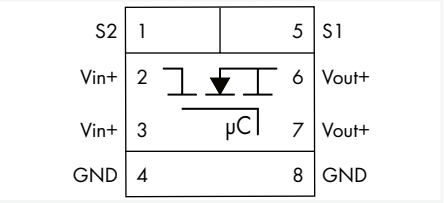
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 80 mV
Nominal output current $I_{o\,nom}$	1 x 1 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	< 6000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 4 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 24 … 14 AWG (1 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 2 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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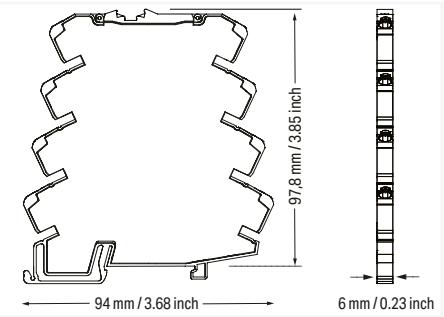
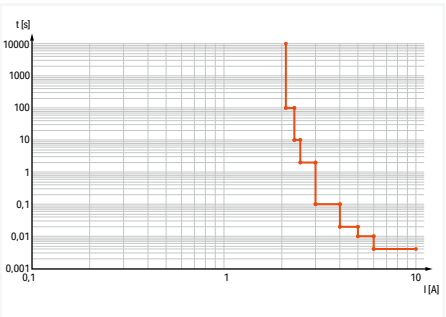


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

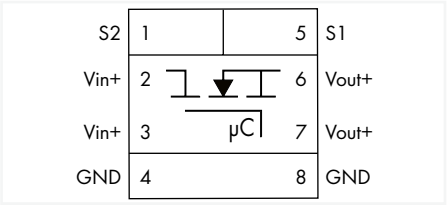
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 160 mV
Nominal output current $I_{o\,nom}$	1 x 2 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 22 … 14 AWG (2 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 2 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered ▶ NEC Class 2



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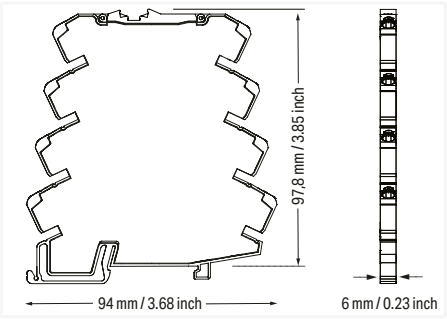
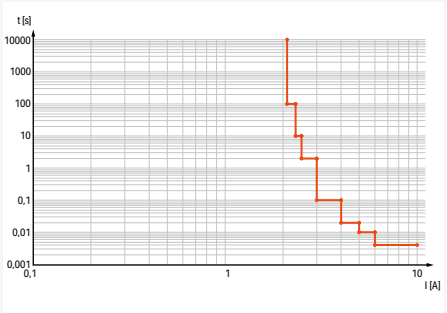


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 6,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

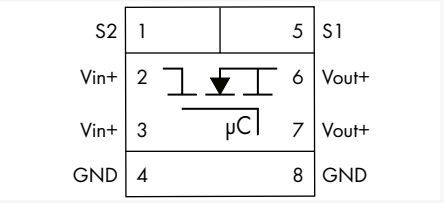
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 160 mV
Nominal output current $I_{o\,nom}$	1 x 2 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	< 6000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 4 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 22 … 14 AWG (2 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 4 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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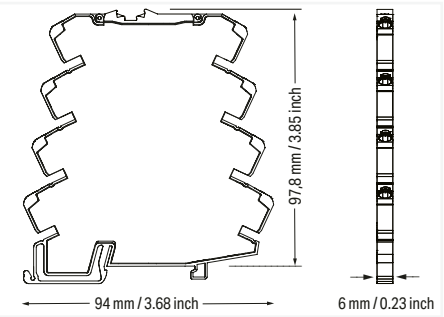
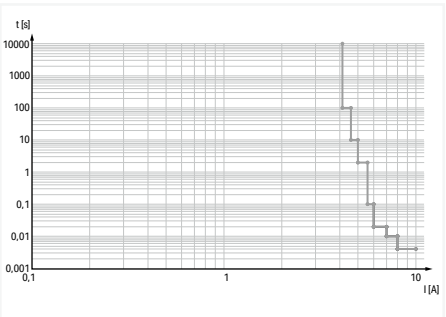


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

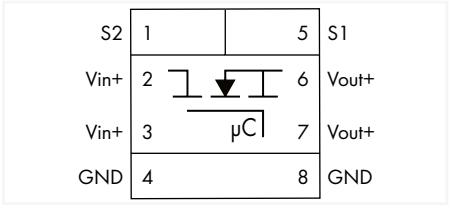
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 320 mV
Nominal output current $I_{o\,nom}$	1 x 4 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 20 … 14 AWG (4 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 4 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered ▶ NEC Class 2



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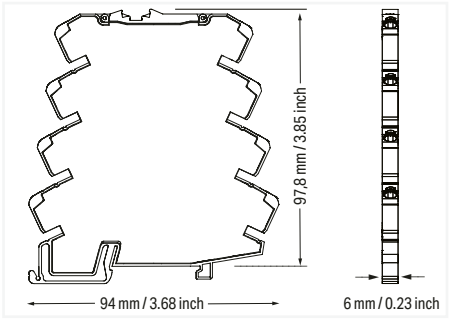
	787-3861/400-1000	1

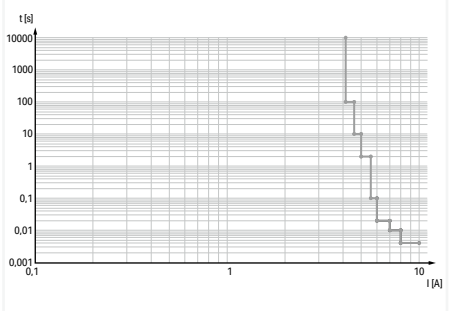


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 7,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

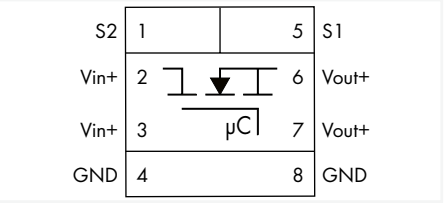
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 320 mV
Nominal output current $I_{o\,nom}$	1 x 4 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	< 7000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 4 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 20 … 14 AWG (4 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 1310 (NEC Class 2); UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 6 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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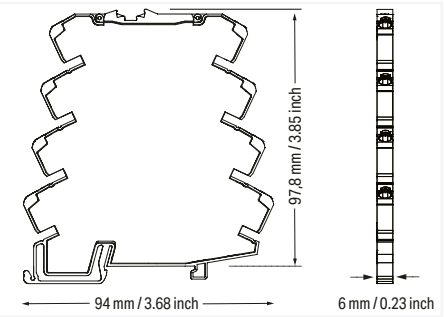
	787-3861/600-000	1

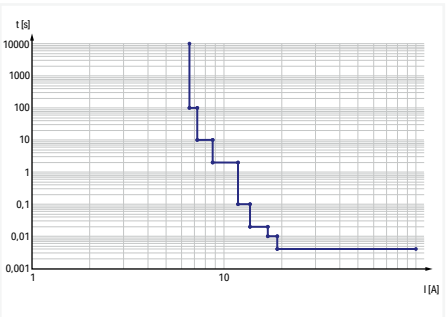


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

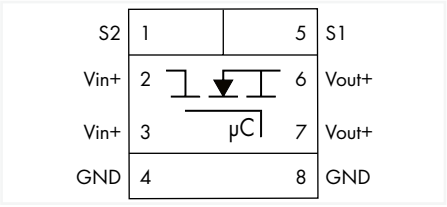
Note

The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 180 mV
Nominal output current $I_{o\,nom}$	1 x 6 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 8 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	See instruction manual
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 18 … 14 AWG (6 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 1 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 1 x 8 A (fixed setting) ▶ 1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered



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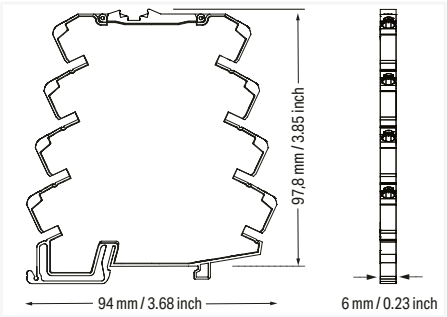
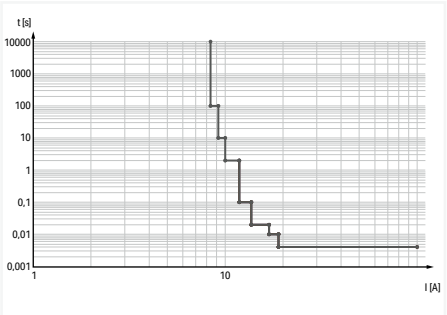


Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Note

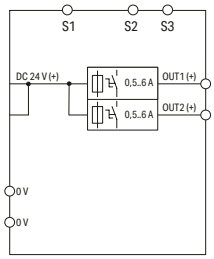
The device is designed for use in SELV circuits.
Depending on the output current, please use the approved minimum conductor cross-sections.



Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	1
Nominal output voltage $U_{o\,nom}$	1 x 24 VDC
Output voltage range	18 … 30 VDC (U_e − voltage drop)
Voltage drop	≤ 240 mV
Nominal output current $I_{o\,nom}$	1 x 8 A (fixed setting)
Default Setting	switched off
Trip time	4 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF (see instruction manual)
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms)
Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) ; 1 x Signal output (18 … 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK); Red LED (channel switched off)
Remote input	1 x Control input (15 … 30 VDC (active high); 0 … 5 VDC (active low); max. 0.015 A)
Efficiency/power losses	
Power loss P_l	≤ 0.4 W (no load)
Efficiency (typ.)	98 %
Circuit protection	
Internal fuse	T 10 A
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	1,168,394 h
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	See instruction manual
Operating altitude	≤ 2000 m (a.s.l.)
Insulation coordination (UL)	
Overvoltage category	II
Pollution degree	2
Insulation coordination	
Overvoltage category	II
Pollution degree	2
Connection data	
Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.34 … 2.5 mm² / 26 … 14 AWG
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 … 14 AWG (0.5 A); 16 … 14 AWG (8 A)
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 94 mm x 97.8 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 61010-2-201; DNV; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



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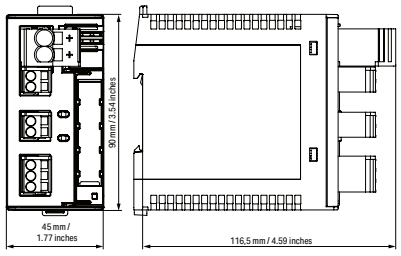
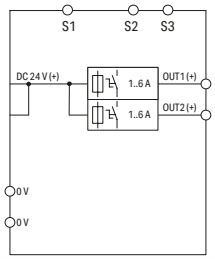


Features:

- Space-saving ECB with two channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 145 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.7 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.55 W; ≤ 2.5 W (2 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)



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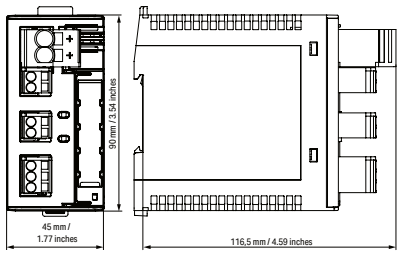
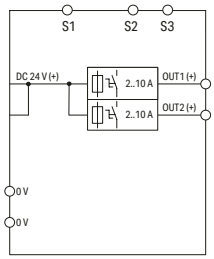


Features:

- Space-saving ECB with two channels
- Nominal current: 1 … 6 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 120 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.85 W; ≤ 2.5 W (2 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)



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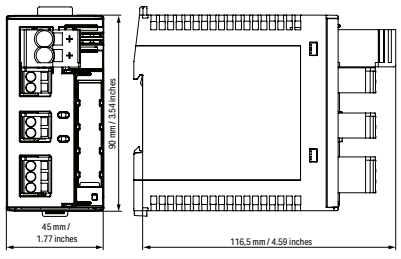


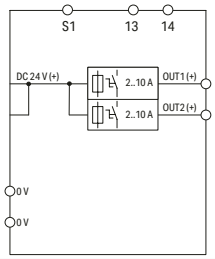
Features:

- Space-saving ECB with two channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50,000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.85 W; ≤ 5.5 W (2 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



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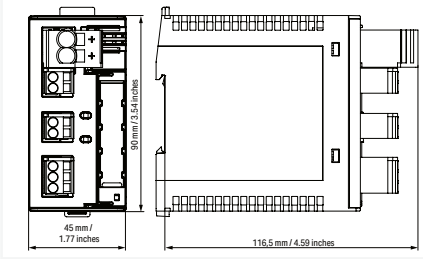


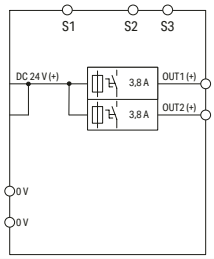
Features:

- Space-saving ECB with two channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped and switched off message (common group signal) via isolated contact, ports 13 / 14
- Remote input resets all tripped channels

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 2 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 5.5 W (2 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 3.8 A (Fixed setting; NEC Class 2 at 20 … 24 VDC); 2 x 3.2 A (NEC Class 2 at 28 VDC) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



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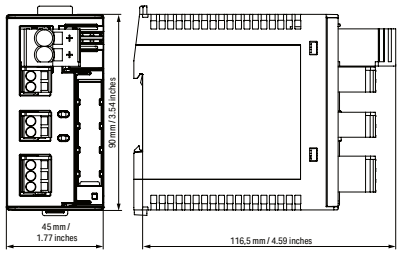


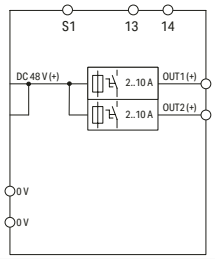
Features:

- Space-saving ECB with two channels
- Nominal current is fixed at 3.8 A for each channel
- Each output complies with NEC Class 2
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

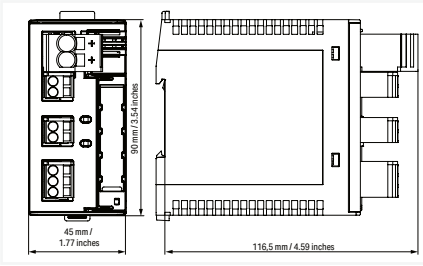
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	20 … 28.8 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 24 VDC
Output voltage range	20 … 28.8 VDC (U_e – voltage drop)
Voltage drop	≤ 125 mV (3.8 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 3.8 A (Fixed setting; NEC Class 2 at 20 … 24 VDC); 2 x 3.2 A (NEC Class 2 at 28 VDC)
Default Setting	DC 3.5 A; switched on
Trip time	16 ms … 4.7 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	3.8 A (3.2 A at U_o > 25 VDC); LPS per NEC Class 2
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.65 W; ≤ 1.6 W (2 x 3.8 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	No
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 28.8 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 2 ▶ Nominal input voltage $U_{i\,nom}$: 48 VDC ▶ Nominal output current $I_{o\,nom}$: 2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 2 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



Item No.	PU
787-1662/000-250	1



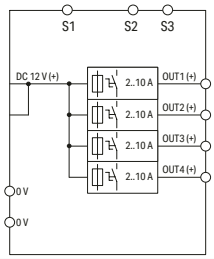
Features:

- Space-saving ECB with two channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (common group signal) via isolated contact (13 / 14)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports "channel switched off" and "tripped channel" – does not support communication via pulse sequence

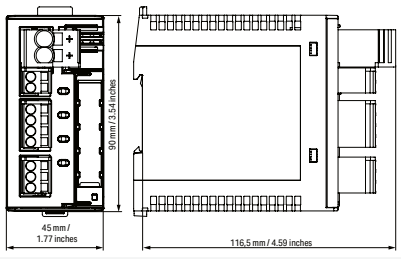
Input	
Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC
Output	
Total number of channels (module)	2
Nominal output voltage $U_{o\,nom}$	2 x 48 VDC
Output voltage range	32 … 58 VDC (U_e – voltage drop)
Voltage drop	≤ 175 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 23000 µF per channel at 48 VDC, 2.5 mm² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	2 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 58 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 4.5 W (2 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 58 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (68 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 12 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/000-100	1



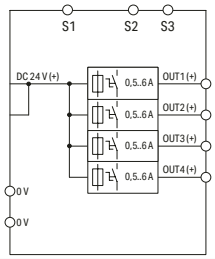
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

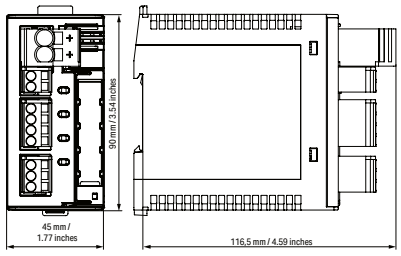
Input	
Nominal input voltage $U_{i\,nom}$	12 VDC
Input voltage range	10 … 16 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 12 VDC
Output voltage range	10 … 16 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 9 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.53 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/006-1000	1



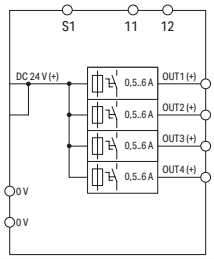
Features:

- Space-saving ECB with four channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

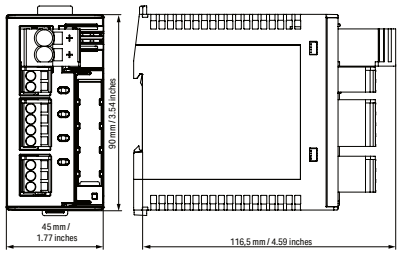
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 145 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.7 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.77 W; ≤ 4.3 W (4 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (11; 12)

Similar to illustration



Item No.	PU
787-1664/006-1054	1



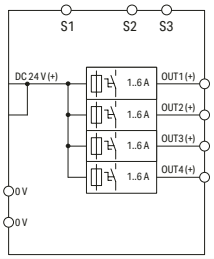
Features:

- Space-saving ECB with four channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch); Factory preset: 0.5 A (when switched off)
- Active current limitation
- Switch-on capacity > 58000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Tripped and switched off message (common group signal) via isolated contact, ports 11 / 12
- Reactivation of all tripped channels via S1 remote input

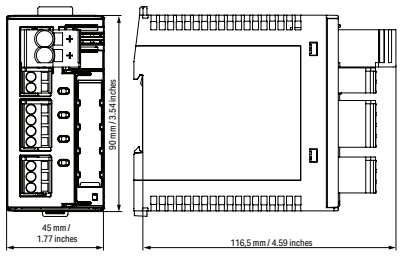
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 145 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 0.5 A; switched off
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 58000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.3 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (11; 12)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.77 W; ≤ 4.3 W (4 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/106-000	1



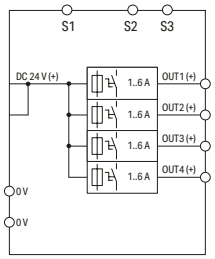
Features:

- Space-saving ECB with four channels
- Nominal current: 1 … 6 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

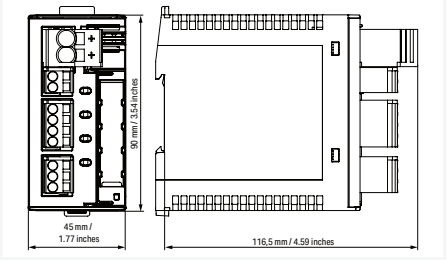
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 120 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 4.2 W (4 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input with inverted logic (S1); 2 x Active signal output, low-side switching (S2; S3)

Similar to illustration



	Item No.	PU
	787-1664/106-011	1

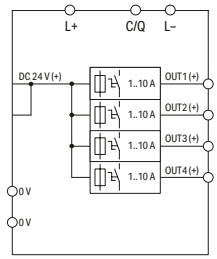


Features:

- ECB with four channels (parametrizable)
- Signal and control contacts with inverted logic (low-side switching signal outputs)
- Time-delayed switching of channels
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Message reports status for each channel via pulse sequence
- Group signal reports "channel switched off" and "tripped channel"
- Remote control input for switching on/off any number of channels via pulse sequence
- Remote control input for resetting all tripped channels

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 120 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input with inverted logic (S1); 2 x Active signal output, low-side switching (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 4.2 W (4 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 1 / 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via IO-Link interface; 1, 2, 4, 6, 10 A adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x IO-Link interface



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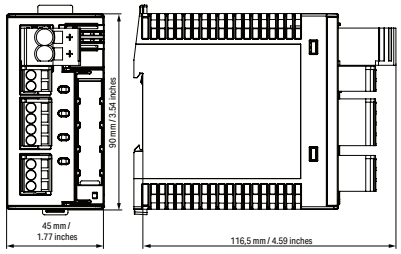
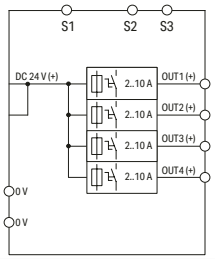


Features:

- Space-saving ECB with four channels
- Nominal current: 1 … 10 A (adjustable for each channel via sealable selector switch or IO-Link interface)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Status message and current measurement of each individual channel via IO-Link interface
- Switch on/off each channel separately via IO-Link interface

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 1 / 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via IO-Link interface; 1, 2, 4, 6, 10 A adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x IO-Link interface
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Switching on/off any number of channels via IO-Link interface
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)



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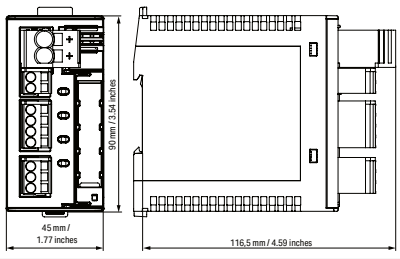
	787-1664	1



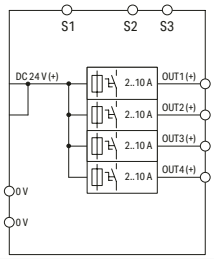
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



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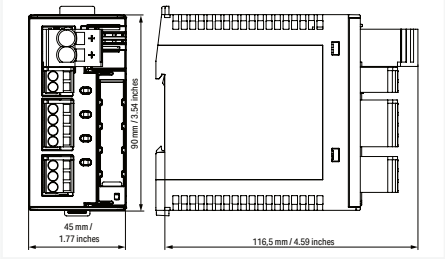
787-1664/000-004	1



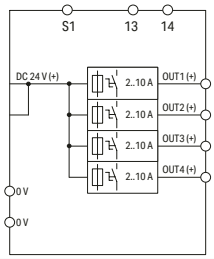
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped and switched off message (common group signal S3)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

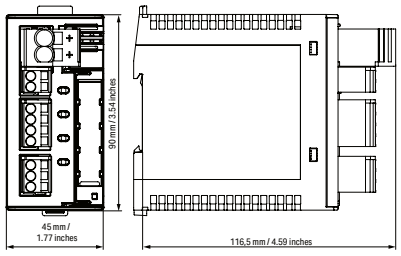
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 2 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



	Item No.	PU
	787-1664/000-054	1



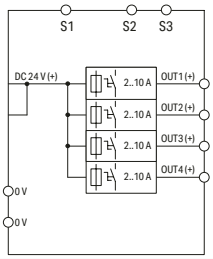
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped and switched off message (common group signal) via isolated contact, ports 13 / 14
- Remote input resets all tripped channels

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 2 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input with inverted logic (S1); 2 x Active signal output, low-side switching (S2; S3)

Similar to illustration



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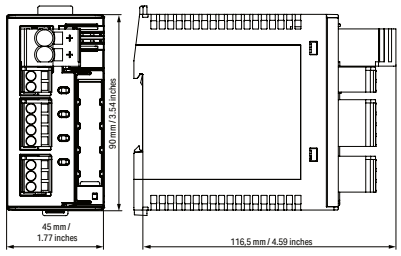
787-1664/000-011	1



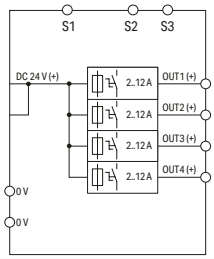
Features:

- ECB with four channels (parametrizable)
- Signal and control contacts with inverted logic (low-side switching signal outputs)
- Time-delayed switching of channels
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Message reports status for each channel via pulse sequence
- Group signal reports “channel switched off” and “tripped channel”
- Remote control input for switching on/off any number of channels via pulse sequence
- Remote control input for resetting all tripped channels

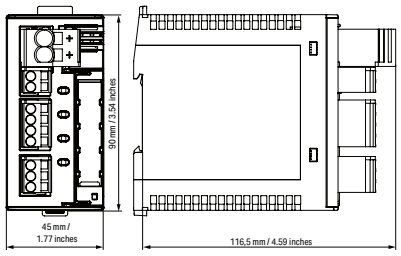
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input with inverted logic (S1); 2 x Active signal output, low-side switching (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 4 / 6 / 8 / 10 / 12 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/212-1000	1



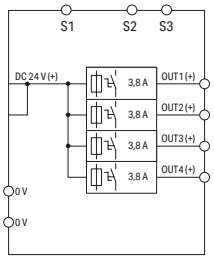
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 12 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

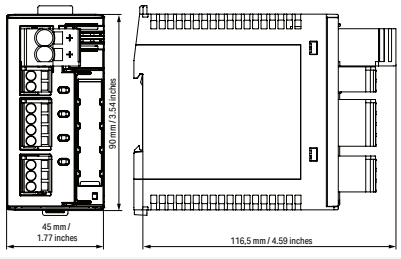
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 240 mV (12 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 4 / 6 / 8 / 10 / 12 A (adjustable for each channel via selector switch)
Default Setting	DC 12 A; switched on
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.7 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.77 W; ≤ 12.3 W (4 x 12 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 3.8 A (Fixed setting; NEC Class 2 at 20 … 24 VDC); 4 x 3.2 A (NEC Class 2 at 28 VDC) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/004-1000	1



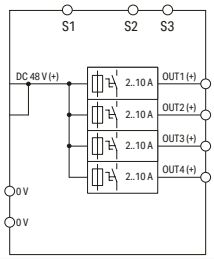
Features:

- Space-saving ECB with four channels
- Nominal current is fixed at 3.8 A for each channel
- Each output complies with NEC Class 2
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

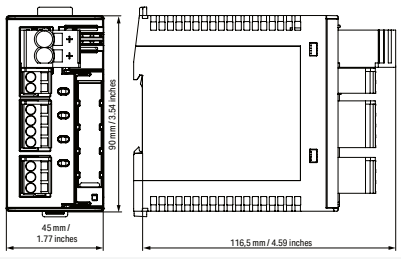
Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	20 … 28.8 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	20 … 28.8 VDC (U_e – voltage drop)
Voltage drop	≤ 150 mV (3.8 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 3.8 A (Fixed setting; NEC Class 2 at 20 … 24 VDC); 4 x 3.2 A (NEC Class 2 at 28 VDC)
Default Setting	DC 3.8 A; switched on
Trip time	16 ms … 4.7 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	3.8 A (3.2 A at U_o > 25 VDC); LPS per NEC Class 2
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.82 W; ≤ 3.1 W (4 x 3.8 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	No
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 28.8 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 48 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



Item No.	PU
787-1664/000-200	1



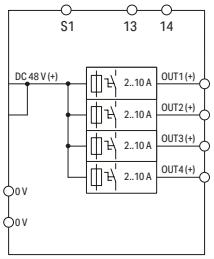
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

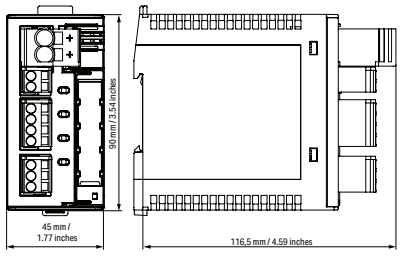
Input	
Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 48 VDC
Output voltage range	32 … 58 VDC (U_e – voltage drop)
Voltage drop	≤ 175 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 23000 µF per channel at 48 VDC, 2.5 mm² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 58 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 8 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 58 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (68 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 4 ▶ Nominal input voltage $U_{i\,nom}$: 48 VDC ▶ Nominal output current $I_{o\,nom}$: 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



Item No.	PU
787-1664/000-250	1



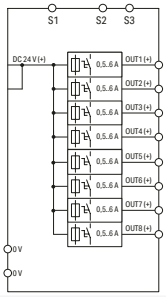
Features:

- Space-saving ECB with four channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports "channel switched off" and "tripped channel" – does not support communication via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC
Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 48 VDC
Output voltage range	32 … 58 VDC (U_e – voltage drop)
Voltage drop	≤ 175 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 23000 µF per channel at 48 VDC, 2.5 mm² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	4 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 58 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 8 W (4 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 58 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (68 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	45 mm x 90 mm x 115.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



	Item No.	PU
	787-1668/006-1000	1

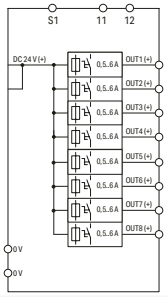
Features:

- Space-saving ECB with eight channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 155 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 65000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.7 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 1.15 W; ≤ 8.6 W (8 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (11; 12)

Similar to illustration



	Item No.	PU
	787-1668/006-1054	1

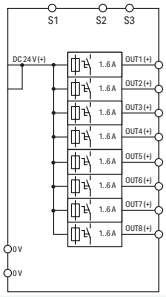
Features:

- Space-saving ECB with eight channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 65000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 11 / 12 reports “channel switched off” and “tripped channel” – does not support communication via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 155 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 0.5 A; switched off
Trip time	16 ms … 5 s (load-dependent)
Switch-on capacity	> 58000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	1.3 x $I_{o\,nom}$ (typ.)
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (11; 12)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 1.15 W; ≤ 8.6 W (8 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



	Item No.	PU
	787-1668/106-000	1

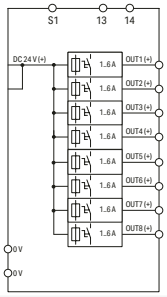
Features:

- Space-saving ECB with eight channels
- Nominal current: 1 … 6 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 120 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 6 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 1.32 W; ≤ 8 W (8 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



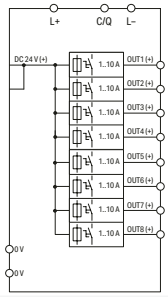
Item No.	PU
787-1668/106-054	1

Features:

- Space-saving ECB with eight channels
- Nominal current: 1 … 6 A (adjustable for each channel via sealable selector switch); Factory preset: 1 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports “channel switched off” and “tripped channel” – does not support communication via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 120 mV (6 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch)
Default Setting	DC 1 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 0.84 W; ≤ 8 W (8 x 6 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; DNV
Standards/specifications (pending)	UL 508; UL 2367

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 1 / 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via IO-Link interface; 1, 2, 4, 6, 10 A adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x IO-Link interface



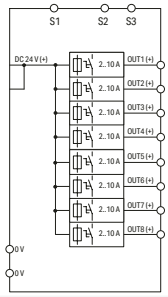
	Item No.	PU
	787-1668/000-080	1

Features:

- Space-saving ECB with eight channels
- Nominal current: 1 … 10 A (adjustable for each channel via sealable selector switch or IO-Link interface)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Status message and current measurement of each individual channel via IO-Link interface
- Switch on/off each channel separately via IO-Link interface

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 1 / 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via IO-Link interface; 1, 2, 4, 6, 10 A adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x IO-Link interface
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Switching on/off any number of channels via IO-Link interface
Efficiency/power losses	
Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)



	Item No.	PU
	787-1668	1

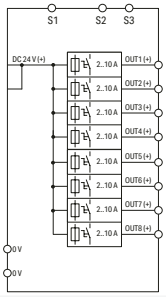
Features:

- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



	Item No.	PU
	787-1668/000-004	1

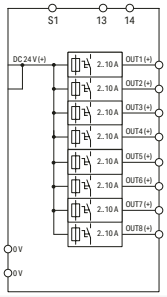
Features:

- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped and switched off message (common group signal S3)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 2 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 24 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



Item No.	PU
787-1668/000-054	1

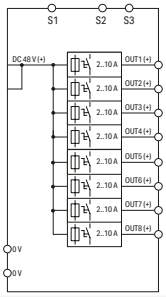
Features:

- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports "channel switched off" and "tripped channel" – does not support communication via pulse sequence.

Input	
Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 24 VDC
Output voltage range	18 … 30 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total)
Default Setting	DC 2 A; switched off
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 50000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 1.32 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 35 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (33 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 48 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)

Similar to illustration



	Item No.	PU
	787-1668/000-200	1

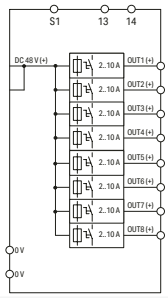
Features:

- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 48 VDC
Output voltage range	32 … 58 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 23000 µF per channel at 48 VDC, 2.5 mm² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 58 VDC pulse for min. 500 ms; Switching on/off any number of channels via pulse sequence
Efficiency/power losses	
Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 58 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (68 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Electronic circuit breaker ▶ Total number of channels (module): 8 ▶ Nominal input voltage $U_{i\,nom}$: 48 VDC ▶ Nominal output current $I_{o\,nom}$: 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total) ▶ 8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)

Similar to illustration



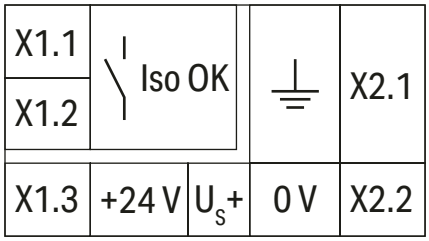
	Item No.	PU
	787-1668/000-250	1

Features:

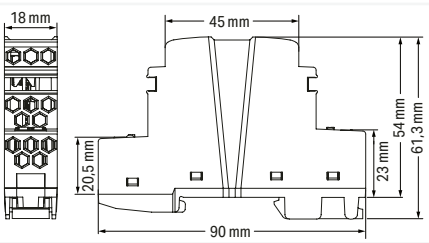
- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (common group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports “channel switched off” and “tripped channel” – does not support communication via pulse sequence

Input	
Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC
Output	
Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 48 VDC
Output voltage range	32 … 58 VDC (U_e – voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	> 23000 µF per channel at 48 VDC, 2.5 mm² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No
Signaling and communication	
Signaling	8 x LED (green/red/orange); 1 x Remote control input (S1); 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK); Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 58 VDC pulse for min. 500 ms
Efficiency/power losses	
Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %
Circuit protection	
Internal fuse	T 15 A per channel
Safety and protection/Environmental requirements	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class/Protection type	III / IP20; per EN 60529
Reverse voltage protection	No
Pollution degree	2
Resistance to reverse feed	≤ 58 VDC
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)
Transient suppression (primary)	Suppressor diode (68 V)
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)
Connection data	
Connection 1	
Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.5 … 10 mm² / 0.5 … 10 mm² / 20 … 8 AWG
Connection 2	
Connection type	Input (–); output; signaling
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 12 AWG
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	42 mm x 127 mm x 142.5 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61000-6-2; EN 61000-6-3; UL 508; UL 2367; DNV

Ground resistance signaling module ▶ Ground fault alarm via digital output ▶ Nominal supply voltage U_S: 24 VDC (SELV) ▶ Width: 18 mm



Item No.	PU
789-665	1



Short description:
WAGO's module signals a value falling below a non-adjustable, asymmetric isolation resistance between +24 V or 0 V of the supply voltage and ground with a potential-free (Iso OK) contact and status LED. The Iso OK contact can be evaluated via a PLC.
This status is maintained until the next measurement interval.
Operation with Grounded Control Circuit (Functional Potential Equalization):
The module establishes an internal connection between the 0 V (X2.2) and ground (X2.1) connections via a semiconductor switch.
At 10 s intervals, this connection between 0 V and ground is interrupted for 0.5 s, and the isolation resistance between +24 V (X1.3) or 0 V (X2.2) of the supply voltage and earth (X2.1) is determined.
The grounding connection on the module does not meet the requirements of a protective earth terminal (PE). It serves as a functional ground. The measurement method does not involve the module establishing any permanent connection between 0 V and ground.
Operation with Ungrounded Control Circuit
In this operating mode, the semiconductor switch to establish a connection between 0 V (X2.2) and ground (X2.1) is deactivated. At 1 s intervals, the isolation resistance offset is determined for 0.5 s.
The module does not meet the requirements of an isolation monitoring device per EN 61557-8.
"Iso OK" Contact:
- The potential-free contact serves the purpose of supporting evaluation (e.g., via a PLC) of looming isolation faults.
- This contact must not be used to switch safety-related products that could cause the circuit to switch off.

Power supply	
Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range (DC)	18 … 31.2 VDC
Current consumption at nominal supply voltage	≤ 40 mA
Power loss P_l	≤ 1.7 W
Current at ground fault (24 VDC) max.	56 mA
Signaling	
Operation status indicator	1 x LED "Status OK" (green)
Signaling	1 x LED "Iso Alarm" (red); 1 x LED "Iso Alarm" 24 V — Ground (yellow); 1 x LED "Iso Alarm" 0 V — Ground (yellow); 1 x Signal output "Iso OK"
Iso OK contact	
Switching voltage (max.)	48 VDC (SELV)
Continuous current (max.)	500 mA (for general use)
Number of Iso OK contacts connected in series (max.)	25 (Limit value type: 1); 32 (Limit value type: 2 and 3) (per IEC 61131)
Function	1 make contact (NO); closed with applied power supply and insulation resistance > limit value
Circuit protection	
Backup fusing (required)	The fuse must be placed in the output circuit of the power supply. The fuse must be adapted to the power supply used and must trip safely in case of a short circuit. The module is designed for use with a 10 A (max.) fuse or with a 10 ADC (max.) circuit breaker (characteristic B or C).
Safety and protection/Environmental requirements	
Pollution degree	2
Overvoltage category	II
Protection type	IP20
Test voltage (supply/Iso OK contact)	1.5 kVAC; 50 … 60 Hz; 1 min
MTBF	> 600,000 h (per MIL-HDBK-217F2)
Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 10 K)
Relative humidity	5 … 95 % (non-condensing)
Operating altitude (max.)	3000 m
Mode: Ungrounded circuit	
Response value for alarm at nominal voltage	4 kΩ (at U_S = 24 V; for other U_S values see diagram for signaling threshold)
Response time	1 s
Hysteresis (typ.)	1 kΩ
Mode: Grounded circuit	
Response value for alarm at nominal voltage	4 kΩ (at U_S = 24 V; for other U_S values see diagram for signaling threshold)
Response time	10 s
Hysteresis (typ.)	1 kΩ
Connection data	
Connection 1	
Connection type	X1.x
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.25 … 1.5 mm² / 0.25 … 1.5 mm² / 24 … 14 AWG
Connection 2	
Connection type	X2.x
Connection technology	Push-in CAGE CLAMP®
Solid/fine-stranded/AWG	0.2 … 2.5 mm² / 0.2 … 2.5 mm² / 24 … 12 AWG

Accessories

Operating tool; 1 -times

Item No.	PU (SPU)
210-719	50 (1)

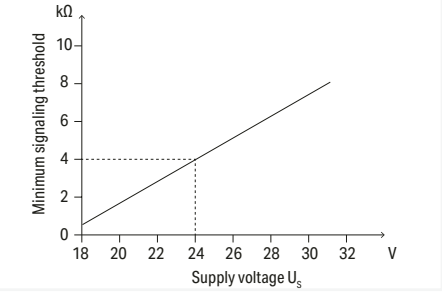
Marking strip; plain; Width: 11 mm

Color	Item No.	PU
◯ white	2009-110	1

Marker carrier

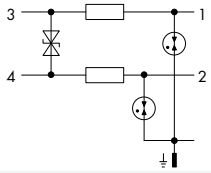
Item No.	PU (SPU)
2009-198	200 (25)

Ground resistance signaling module ▶ Ground fault alarm via digital output ▶ Nominal supply voltage U_S: 24 VDC (SELV) ▶ Width: 18 mm

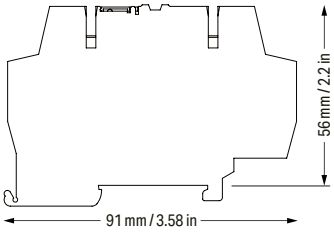


Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	18 mm x 90 mm x 51 mm
Mounting type	DIN-35 rail
Standards and specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-3; EN 61000-6-4
Standards/specifications	UL 61010-2-201

Surge suppression module for signal technology ▶ Nominal operating voltage: 24 VDC ▶ for 2 signal paths with common surge arrester; for symmetric interfaces; Two-stage ▶ Width: 6 mm



Item No.	PU
792-801	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	23 VAC / 33 VDC
Nominal current	0.5 A
Nominal discharge current (8/20 µs) (line)	5 kA
Nominal discharge current (8/20 µs) (total)	10 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 50 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 750 V
Protection level (line/line) (cat. C3 at I_N)	≤ 45 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 650 V
Response time (line/protected ground)	≤ 100 ns
Limit frequency (line/line)	6 MHz
Limit frequency (line/protected ground)	6 MHz
Impedance	1.8 Ω
Capacitance (line/line)	≤ 10 nF
Capacitance (line/protected ground)	≤ 5 pF

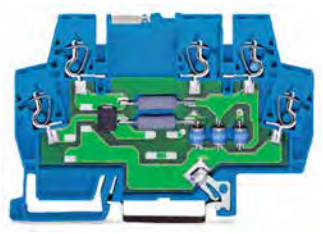
Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C

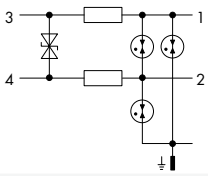
Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail

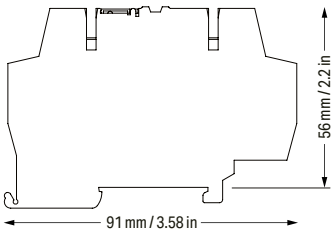
Standards and specifications	
Standards/specifications	IEC 61643-21

Surge suppression module for signal technology ▶ Nominal operating voltage: 24 VDC ▶ for 2 signal paths with common surge arrester; for symmetric interfaces; Two-stage; protects intrinsically safe circuits ▶ Width: 6 mm





Item No.	PU
792-803	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	23 VAC / 33 VDC
Input voltage (max.) per EN 50020 U_i	30 V
Nominal current	0.5 A
Input current (max.) per EN 50020 I_i	0.5 A
Nominal discharge current (8/20 µs) (line)	5 kA
Nominal discharge current (8/20 µs) (total)	10 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 50 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 1.5 kV
Protection level (line/line) (cat. C3 at I_N)	≤ 45 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 1.4 kV
Response time (line/line)	≤ 1 ns
Response time (line/protected ground)	≤ 100 ns
Limit frequency (line/line)	6 MHz
Impedance	1.8 Ω
Capacitance (line/line)	≤ 10 nF
Capacitance (line/protected ground)	≤ 6 pF

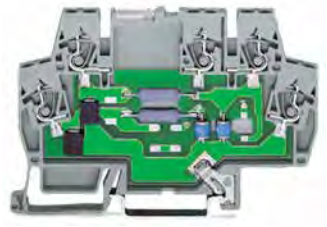
Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C

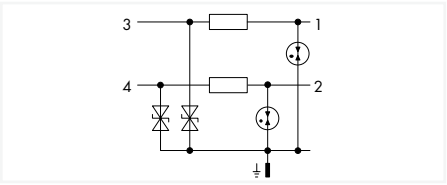
Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail

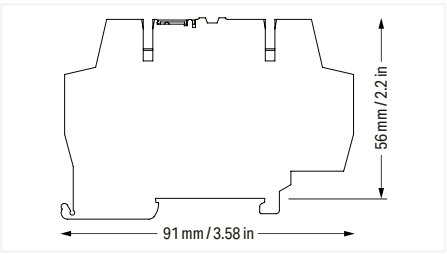
Standards and specifications	
Standards/specifications	IEC 61643-21

Surge suppression module for signal technology ▶ Nominal operating voltage: 24 VDC ▶ for 2 signal paths with common surge arrester; for unbalanced interfaces; Two-stage ▶ Width: 6 mm





Item No.	PU
792-800	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	23 VAC / 33 VDC
Nominal current	0.5 A
Nominal discharge current (8/20 µs) (line)	5 kA
Nominal discharge current (8/20 µs) (total)	10 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 110 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 65 V
Protection level (line/line) (cat. C3 at I_N)	≤ 90 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 45 V
Response time (line/protected ground)	≤ 1 ns
Limit frequency (line/line)	6 MHz
Limit frequency (line/protected ground)	6 MHz
Impedance	1.8 Ω
Capacitance (line/line)	≤ 5 nF
Capacitance (line/protected ground)	≤ 1 nF

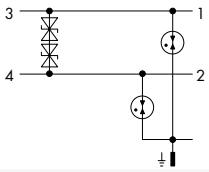
Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C

Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

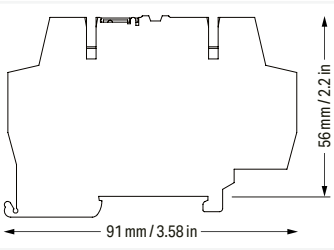
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail

Standards and specifications	
Standards/specifications	IEC 61643-21

Surge suppression module for signal technology ▶ Nominal operating voltage: 24 VDC ▶ for 2 signal paths with common surge arrester; for supply lines; Single-stage ▶ Width: 6 mm



Item No.	PU
792-802	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	23 VAC / 33 VDC
Nominal current	10 A
Nominal discharge current (8/20 µs) (line)	300 A
Nominal discharge current (8/20 µs) (total)	5 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 50 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 750 V
Protection level (line/line) (cat. C3 at I_N)	≤ 45 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 650 V
Response time (line/line)	≤ 1 ns
Response time (line/protected ground)	≤ 100 ns
Limit frequency (line/line)	7 MHz
Capacitance (line/line)	≤ 10 nF
Capacitance (line/protected ground)	≤ 12 pF

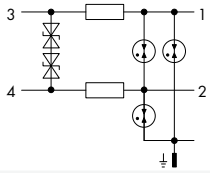
Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C

Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

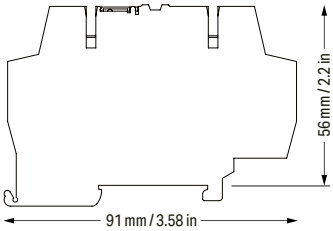
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail

Standards and specifications	
Standards/specifications	IEC 61643-21

Surge suppression module for signal technology ▶ Nominal operating voltage: 48 VDC ▶ for 2 signal paths with common surge arrester; for symmetric interfaces; Two-stage ▶ Width: 6 mm



Item No.	PU
792-804	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

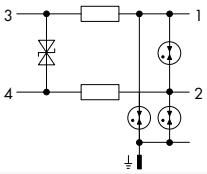
Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

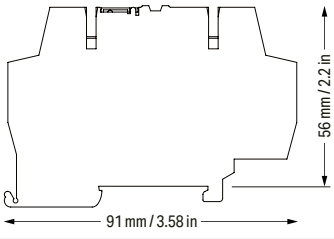
Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	38.5 VAC / 55 VDC
Nominal current	1.7 A
Nominal discharge current (8/20 µs) (line)	5 kA
Nominal discharge current (8/20 µs) (total)	10 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 100 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 750 V
Protection level (line/line) (cat. C3 at I_N)	≤ 70 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 650 V
Response time (line/line)	≤ 1 ns
Response time (line/protected ground)	≤ 100 ns
Limit frequency (line/line)	10 MHz
Impedance	0.4 Ω
Capacitance (line/line)	≤ 10 pF
Capacitance (line/protected ground)	≤ 1 pF
Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C
Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail
Standards and specifications	
Standards/specifications	IEC 61643-21

Surge suppression module for signal technology ▶ Nominal operating voltage: 5 VDC ▶ for 2 signal paths with common surge arrester; for interfaces with high baud rate; Two-stage ▶ Width: 6 mm

Similar to illustration



Item No.	PU
792-805	1



Short description:
Provides surge protection for IT systems and devices in the voltage range up to 60 V (except custom solutions, e.g., telephone systems with ringing voltage).
Overvoltage protection is also possible for DIN-35 rail-mount terminal blocks. Multi-stage surge arresters in rail-mount terminal blocks (792-80x Series) of just 6 mm width ensure cost-effective protection for control and bus technology (e.g., LON® network, PROFIBUS network, binary signals).

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Note
The coordination characteristics of the surge arrester provide information about its discharge capacity and protection capability.

Electrical data	
Nominal operating voltage	5 VDC
Maximum continuous voltage	4.2 VAC / 6 VDC
Nominal current	0.1 A
Nominal discharge current (8/20 µs) (line)	5 kA
Nominal discharge current (8/20 µs) (total)	10 kA
Protection level (line/line) (cat. C2 at I_N)	≤ 27 V
Protection level (line/protected ground) (cat. C2 at I_N)	≤ 50 V
Protection level (line/line) (cat. C3 at I_N)	≤ 14 V
Protection level (line/protected ground) (cat. C3 at I_N)	≤ 14 V
Response time (line/line)	≤ 1 ns
Limit frequency (line/line)	250 MHz
Limit frequency (line/protected ground)	180 MHz
Impedance	1 Ω
Capacitance (line/line)	≤ 19 pF
Capacitance (line/protected ground)	≤ 16 pF

Safety and protection/Environmental requirements	
Protection type	IP00; IP20 with end and intermediate plate
Ambient temperature (operation)	-40 … +80 °C
Ambient temperature (storage)	-40 … +80 °C

Connection data	
Connections (number)	5
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

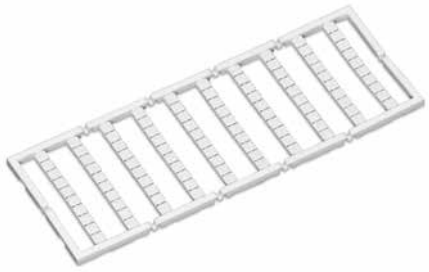
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	6 mm x 91 mm x 56 mm
Mounting type	DIN-35 rail

Standards and specifications	
Standards/specifications	IEC 61643-21

Accessories

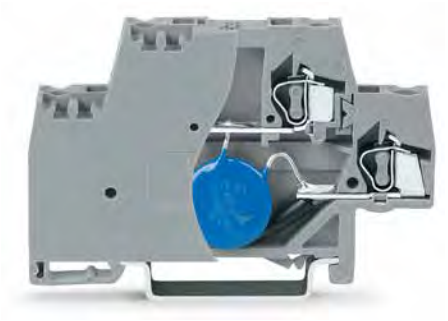
End and intermediate plate; 1 mm thick		
	Item No.	PU
	859-525	100

Push-in type jumper bar; light gray; insulated; 18 A		
Description	**Item No.**	PU
2-way	**859-402**	200
3-way	**859-403**	200
4-way	**859-404**	200
5-way	**859-405**	200
6-way	**859-406**	100
7-way	**859-407**	100
8-way	**859-408**	100
9-way	**859-409**	100
10-way	**859-410**	100
Item no. suffixes for colored push-in type jumper bars		
yellow	**... /000-029**	
red	**... /000-005**	
Blue	**... /000-006**	



Mini-WSB marker card; Marker width: 5 mm; 10 strips with 10 markers/card		
Marking	**Item No.**	PU
plain	**248-501**	50
1 ... 10 (10 x)	**248-502**	5
11 ... 20 (10 x)	**248-503**	5
21 ... 30 (10 x)	**248-504**	5
31 ... 40 (10 x)	**248-505**	5
41 ... 50 (10 x)	**248-506**	5
1 ... 50 (2 x)	**248-566**	5
K1 ... K10	**248-450**	50
K11 ... K20	**248-451**	50
K100	**248-452**	50
U1 ... U10	**248-453**	50
U11 ... U20	**248-454**	50
U100	**248-455**	50

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail



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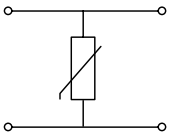


	Item No.	PU
	280-504/281-586	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	30 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 93 VAC
Capacitance	≤ 3.5 nF

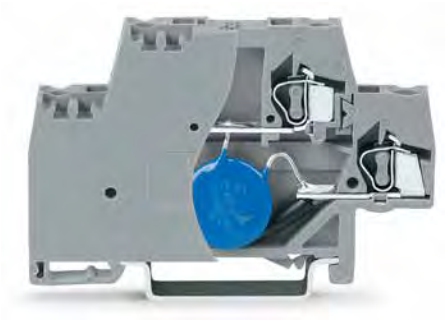
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail



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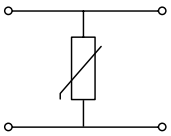


	Item No.	PU
	280-504/281-587	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
• Protect your system against overvoltage
• Slim, space-saving design
• Control operational costs by preventing expensive, unplanned downtime
• High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	150 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 395 VAC
Capacitance	≤ 570 pF

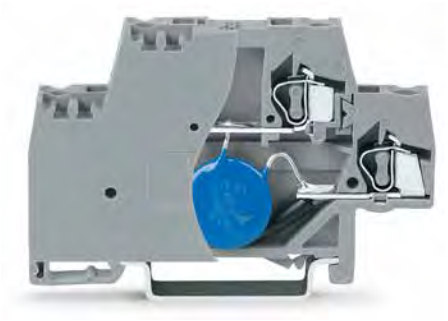
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail



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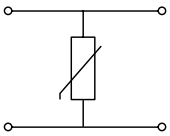


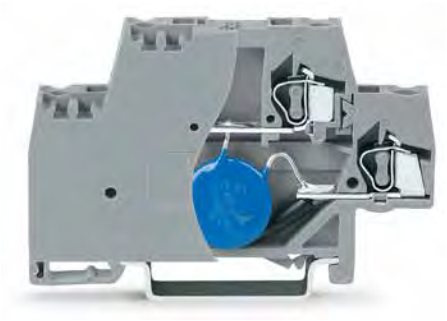
	Item No.	PU
	280-504/281-588	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	275 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 710 VAC
Capacitance	≤ 320 pF
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail



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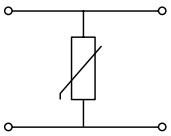


	Item No.	PU
	280-504/281-582	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	31 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 77 VDC
Capacitance	≤ 4.6 nF

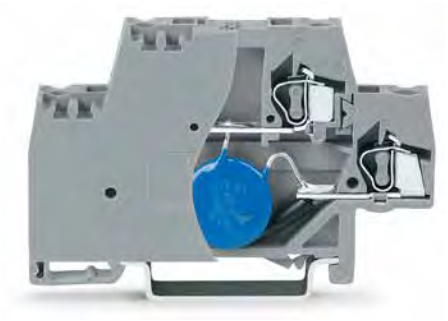
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail



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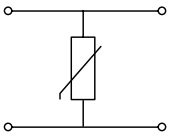


	Item No.	PU
	280-504/281-583	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	56 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 135 VDC
Capacitance	≤ 2.8 nF

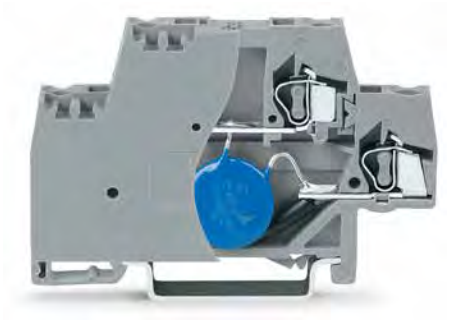
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

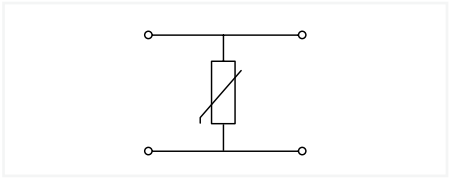
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 60 VDC ▶ Mounting type: DIN-35 rail





	Item No.	PU
	280-504/281-584	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
• Protect your system against overvoltage
• Slim, space-saving design
• Control operational costs by preventing expensive, unplanned downtime
• High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	85 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 165 VDC
Capacitance	≤ 1.7 nF

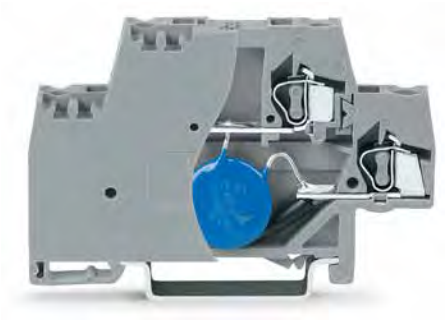
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

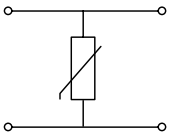
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail



Similar to illustration



Item No.	PU
280-504/281-585	50

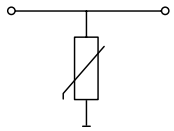
Short description:
This component terminal block with surge suppression device and end plate is equipped with a varistor.
Features:
• Protect your system against overvoltage
• Slim, space-saving design
• Control operational costs by preventing expensive, unplanned downtime
• High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	150 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 300 VDC
Capacitance	≤ 800 pF
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-586	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	30 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 93 VAC
Capacitance	≤ 3.5 nF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

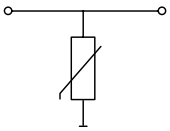
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-587	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	150 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 395 VAC
Capacitance	≤ 570 pF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

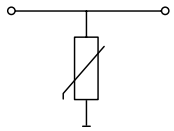
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-588	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	275 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 710 VAC
Capacitance	≤ 320 pF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

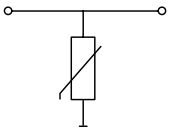
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▸ with end plate; with direct connection to DIN-rail ▸ Nominal operating voltage: 24 VDC ▸ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-582	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	31 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 77 VDC
Capacitance	≤ 4.6 nF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

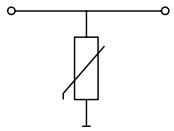
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-583	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	56 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 135 VDC
Capacitance	≤ 2.8 nF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

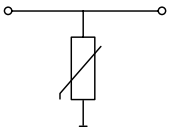
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▸ with end plate; with direct connection to DIN-rail ▸ Nominal operating voltage: 60 VDC ▸ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-584	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

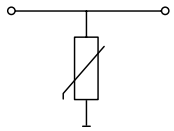
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	85 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 165 VDC
Capacitance	≤ 1.7 nF
Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-585	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	150 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 300 VDC
Capacitance	≤ 800 pF

Safety and protection/Environmental requirements	
Protection type	IP20
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

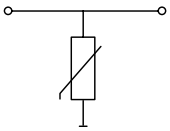
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Component terminal block with varistor ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-613	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	30 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	60 A
Discharge current (max.)	0.25 kA
Protection level (8/20 µs)	≤ 93 VAC
Capacitance	≤ 1.05 nF

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

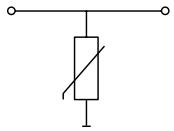
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with varistor ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-614	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	140 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1.2 kA
Protection level (8/20 µs)	≤ 360 VAC
Capacitance	≤ 180 pF
Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

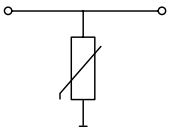
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with varistor ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-609	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	31 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	60 A
Discharge current (max.)	0.25 kA
Protection level (8/20 µs)	≤ 77 VDC
Capacitance	≤ 1.25 nF

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

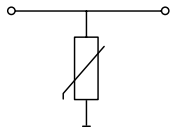
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with varistor ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-610	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	65 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1.2 kA
Protection level (8/20 µs)	≤ 135 VDC
Capacitance	≤ 500 pF

Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m

Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

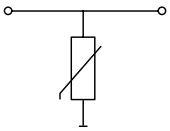
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with varistor ▸ with direct connection to DIN-rail ▸ Nominal operating voltage: 60 VDC ▸ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-611	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	85 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1.2 kA
Protection level (8/20 µs)	≤ 165 VDC
Capacitance	≤ 480 pF
Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

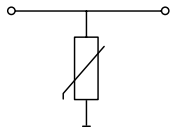
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with varistor ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-612	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a varistor.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

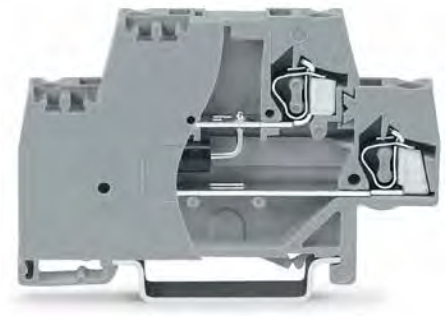
Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	150 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1.2 kA
Protection level (8/20 µs)	≤ 300 VDC
Capacitance	≤ 220 pF
Safety and protection/Environmental requirements	
Protection type	IP00
Ambient temperature (operation)	-25 … +70 °C
Processing temperature	-35 … +85 °C
Operating altitude (max.)	2000 m
Connection data	
Wiring direction	Front-entry wiring
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)
Standards and specifications	
Standards/specifications	EN 60947-7-1; EN 60512-5-2

Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail



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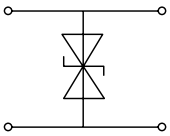


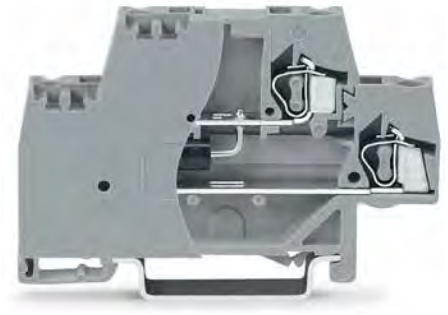
	Item No.	PU
	280-944/281-593	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	26 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	143 A
Protection level (8/20 µs)	≤ 70 VAC
Capacitance	≤ 2.4 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail



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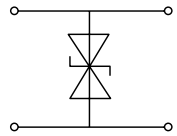


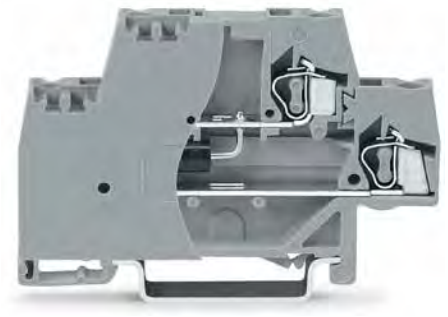
	Item No.	PU
	280-944/281-594	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	133 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	26 A
Protection level (8/20 µs)	≤ 388 VAC
Capacitance	≤ 630 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail



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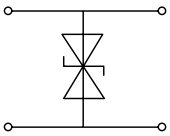


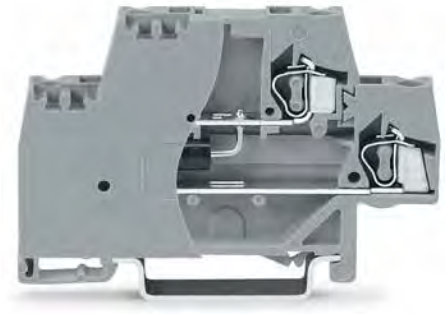
	Item No.	PU
	280-944/281-595	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	253 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	14 A
Protection level (8/20 µs)	≤ 706 VAC
Capacitance	≤ 400 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail



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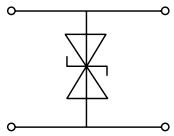


Item No.	PU
280-944/281-589	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

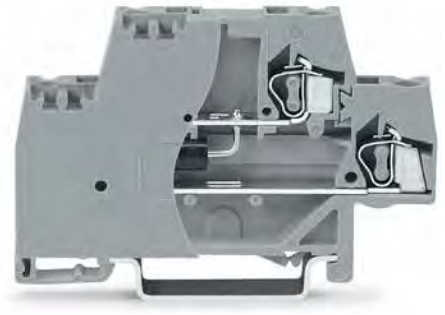
Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	28 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	169 A
Protection level (8/20 µs)	≤ 59 VDC
Capacitance	≤ 2.7 nF

Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail



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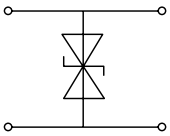


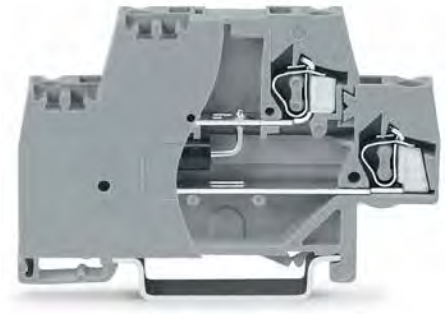
Item No.	PU
280-944/281-590	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	53 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	90 A
Protection level (8/20 µs)	≤ 111 VDC
Capacitance	≤ 1.7 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 60 VDC ▶ Mounting type: DIN-35 rail



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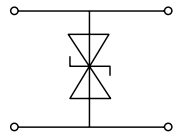


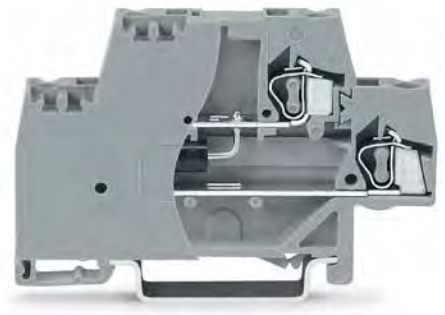
	Item No.	PU
	280-944/281-591	50

Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	70 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	69 A
Protection level (8/20 µs)	≤ 146 VDC
Capacitance	≤ 1.35 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail



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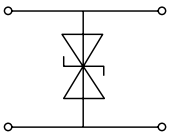


	Item No.	PU
	280-944/281-592	50

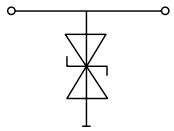
Short description:
This component terminal block with surge suppression device and end plate is equipped with a TVS diode.
Features:
• Protect your system against overvoltage
• Slim, space-saving design
• Control operational costs by preventing expensive, unplanned downtime
• High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	128 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	38 A
Protection level (8/20 µs)	≤ 265 VDC
Capacitance	≤ 850 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	4
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-593	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	26 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	143 A
Protection level (8/20 µs)	≤ 70 VAC
Capacitance	≤ 2.4 nF

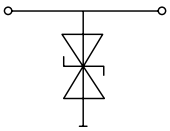
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-594	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

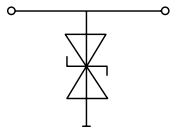
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	133 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	26 A
Protection level (8/20 µs)	≤ 388 VAC
Capacitance	≤ 630 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-595	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	253 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	14 A
Protection level (8/20 µs)	≤ 706 VAC
Capacitance	≤ 400 pF

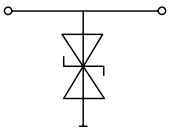
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-589	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	28 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	169 A
Protection level (8/20 µs)	≤ 59 VDC
Capacitance	≤ 2.7 nF

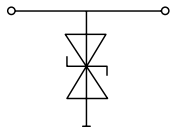
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-590	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

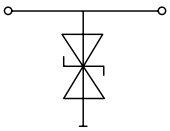
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	53 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	90 A
Protection level (8/20 µs)	≤ 111 VDC
Capacitance	≤ 1.7 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 60 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-591	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

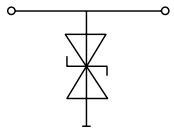
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	70 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	69 A
Protection level (8/20 µs)	≤ 146 VDC
Capacitance	≤ 1.35 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-592	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a TVS diode.

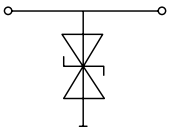
Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	128 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	38 A
Protection level (8/20 µs)	≤ 265 VDC
Capacitance	≤ 850 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-606	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	28 VAC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	9.3 A
Protection level (10/1000 µs)	≤ 65 VAC
Capacitance	≤ 800 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

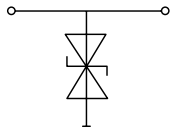
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-607	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	133 VAC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	1.7 A
Protection level (10/1000 µs)	≤ 384 VAC
Capacitance	≤ 360 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

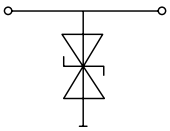
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-608	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	253 VAC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	1.1 A
Protection level (10/1000 µs)	≤ 548 VAC
Capacitance	≤ 360 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

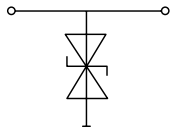
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-602	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	30.8 VDC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	12 A
Protection level (10/1000 µs)	≤ 50 VDC
Capacitance	≤ 1000 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

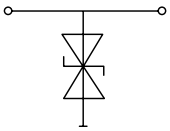
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-603	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	58 VDC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	6.5 A
Protection level (10/1000 µs)	≤ 92 VDC
Capacitance	≤ 630 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

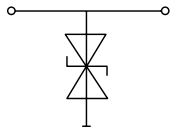
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 60 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-604	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	77 VDC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	4.8 A
Protection level (10/1000 µs)	≤ 125 VDC
Capacitance	≤ 550 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

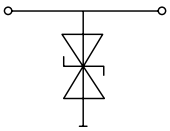
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with suppressor diode ▶ with direct connection to DIN-rail ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-502/281-605	50

Short description:
WAGO's component terminal block with single-stage surge suppression device and direct connection to DIN-35 rail is equipped with a TVS diode.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	136 VDC
Rated continuous current	20 A
Nominal discharge current (10/1000 µs) (line)	2.7 A
Protection level (10/1000 µs)	≤ 219 VDC
Capacitance	≤ 400 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	5 mm x 64 mm x 58.5 mm
Design	with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

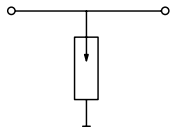
Accessories

End plate

	Item No.	PU (SPU)
	280-340	100 (25)
	280-341	100 (25)

Component terminal block with gas-filled surge arrester ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 24 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-503/281-579	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a gas-filled surge.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC/VDC
DC ignition voltage	72 … 108 V
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 600 VAC
Capacitance	≤ 2 pF

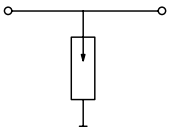
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with gas-filled surge arrester ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 115 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-503/281-580	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a gas-filled surge.

Features:
- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC/VDC
Maximum continuous voltage	180 VAC / 230 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 650 VAC
Capacitance	≤ 2 pF

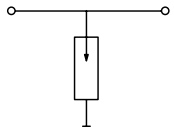
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with gas-filled surge arrester ▶ with end plate; with direct connection to DIN-rail ▶ Nominal operating voltage: 230 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	280-503/281-581	50

Short description:
This component terminal block with surge suppression device, end plate and direct connection to the DIN-35 rail is equipped with a gas-filled surge.

Features:

- Protect your system against overvoltage
- Slim, space-saving design
- Control operational costs by preventing expensive, unplanned downtime
- High operational reliability and system uptime

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC/VDC
Maximum continuous voltage	450 VAC / 600 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 1100 VAC
Capacitance	≤ 2 pF

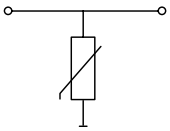
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 2.5 mm² / 28 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 64 mm x 39.5 mm
Design	with end plate; with direct connection to DIN-rail
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



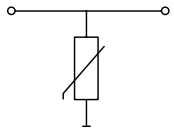
Item No.	PU
870-523/281-586	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	30 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 93 VAC
Capacitance	≤ 3.5 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	870-523/281-587	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	150 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 395 VAC
Capacitance	≤ 570 pF

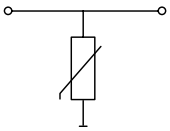
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C

Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches

Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▸ Nominal operating voltage: 230 VAC ▸ Mounting type: DIN-35 rail

Similar to illustration



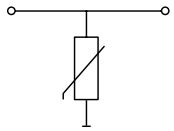
	Item No.	PU
	870-523/281-588	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	275 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 710 VAC
Capacitance	≤ 320 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



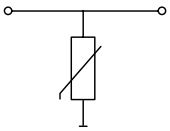
	Item No.	PU
	870-523/281-582	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	31 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 77 VDC
Capacitance	≤ 4.6 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



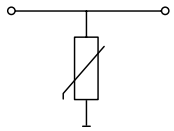
Item No.	PU
870-523/281-583	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	56 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	300 A
Discharge current (max.)	1 kA
Protection level (8/20 µs)	≤ 135 VDC
Capacitance	≤ 2.8 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 60 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



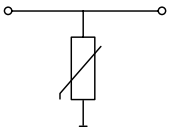
	Item No.	PU
	870-523/281-584	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	60 VDC
Maximum continuous voltage	85 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 165 VDC
Capacitance	≤ 1.7 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with varistor ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



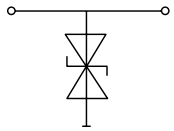
Item No.	PU
870-523/281-585	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	150 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	1 kA
Discharge current (max.)	4.5 kA
Protection level (8/20 µs)	≤ 300 VDC
Capacitance	≤ 800 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 115 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



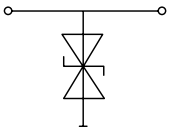
	Item No.	PU
	870-523/281-594	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC
Maximum continuous voltage	133 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	26 A
Protection level (8/20 µs)	≤ 388 VAC
Capacitance	≤ 630 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 230 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



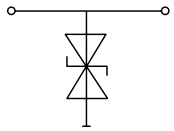
	Item No.	PU
	870-523/281-595	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC
Maximum continuous voltage	253 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	14 A
Protection level (8/20 µs)	≤ 706 VAC
Capacitance	≤ 400 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 24 VAC ▶ Mounting type: DIN-35 rail

Similar to illustration



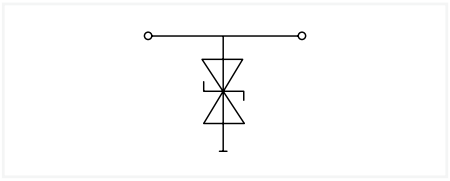
	Item No.	PU
	870-523/281-593	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC
Maximum continuous voltage	26 VAC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	143 A
Protection level (8/20 µs)	≤ 70 VAC
Capacitance	≤ 2.4 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 110 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



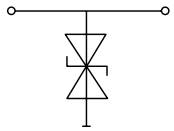
	Item No.	PU
	870-523/281-592	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	110 VDC
Maximum continuous voltage	128 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	38 A
Protection level (8/20 µs)	≤ 265 VDC
Capacitance	≤ 850 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 24 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



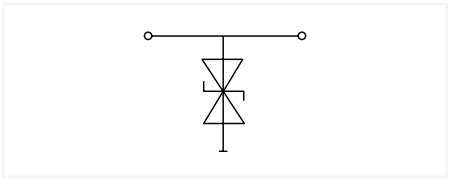
	Item No.	PU
	870-523/281-589	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VDC
Maximum continuous voltage	28 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	169 A
Protection level (8/20 µs)	≤ 59 VDC
Capacitance	≤ 2.7 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with suppressor diode ▶ Nominal operating voltage: 48 VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



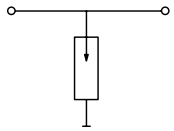
Item No.	PU
870-523/281-590	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	48 VDC
Maximum continuous voltage	53 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	90 A
Protection level (8/20 µs)	≤ 111 VDC
Capacitance	≤ 1.7 nF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with gas-filled surge arrester ▶ Nominal operating voltage: 115 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



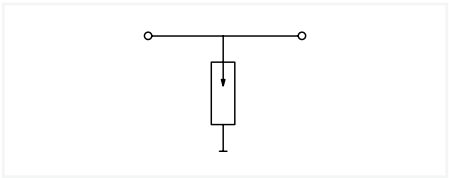
	Item No.	PU
	870-523/281-580	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	115 VAC/VDC
Maximum continuous voltage	180 VAC / 230 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 650 VAC
Capacitance	≤ 2 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with gas-filled surge arrester ▶ Nominal operating voltage: 230 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



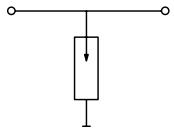
	Item No.	PU
	870-523/281-581	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	230 VAC/VDC
Maximum continuous voltage	450 VAC / 600 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 1100 VAC
Capacitance	≤ 2 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Component terminal block with gas-filled surge arrester ▶ Nominal operating voltage: 24 VAC/VDC ▶ Mounting type: DIN-35 rail

Similar to illustration



	Item No.	PU
	870-523/281-579	25

Safety Information
- Installation must be carried out by qualified personnel only.
- The DIN-rail must be grounded.
- The input current must be protected by a suitable fuse.
- Protection against contact with stored charges must be ensured.
- Do not plug in/unplug pluggable modules when energized.
- The IP20 protection type must be maintained in the assembled state or when using an end/intermediate plate that matches the rail-mount terminal block.

Electrical data	
Nominal operating voltage	24 VAC/VDC
Maximum continuous voltage	70 VAC / 90 VDC
Rated continuous current	20 A
Nominal discharge current (8/20 µs) (line)	5 kA
Protection level (8/20 µs)	≤ 600 VAC
Capacitance	≤ 2 pF
Safety and protection/Environmental requirements	
Processing temperature	-35 … +85 °C
Connection data	
Connections (number)	2
Connection technology	CAGE CLAMP®
Solid/fine-stranded/AWG	0.08 … 2.5 mm² / 0.08 … 4 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Physical data/Mechanical data/Material Data	
Width x Height x Depth from upper-edge of DIN-rail	10 mm x 70 mm x 40 mm
Mounting type	DIN-35 rail
Insulation material (main housing)	Polyamide (PA66)

Accessories

End and intermediate plate; 2.5 mm thick		
Color	Item No.	PU
orange	280-341	100
gray	280-340	100

Insulation stop; 5 pcs/strip			
Color	Diameter	Item No.	PU
white	0.08 … 0.2 mm²	280-470	200
light gray	0.25 … 0.5 mm²	280-471	200
black	0.75 … 1 mm²	280-472	200

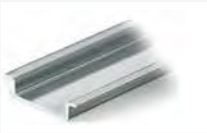
Comb-style jumper bar; insulated; I_N = I_N of terminal block		
	Item No.	PU
2-way	280-482	200
3-way	280-483	200
10-way	280-490	50

Accessories

Alternate comb-style jumper bar; insulated; I_N = I_N of terminal block		
	Item No.	PU
2-way	**280-492**	200

WAGO Accessories and WAGO Tools

WAGO Accessories and WAGO Tools

		Seite
	Thermal Transfer Printer - Smart Printer	
	Smart Printer	778
	Accessories	780
	Shield connection system	
	Shield Clamping Saddles, 790 Series	790
	Spring-Equipped Shield Clamping Saddles, 790 Series	792
	Busbar Carriers	
	790 Series	796
	Control Cabinet Outlet and Switch Cabinet Drawer	
	709 Series	800
	**DIN-Rails, Collective Jumper Carriers and Rail-Mount Terminal Block Covers**	804
	End Stops for DIN-35 and DIN-15 Rails	806
	Operating Tools	812
	Screwdriver	814
	Cable Knives	816
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Marking with Smart Printer

Terminal Block Marking

- Multi-line marking strips for clear, detailed control cabinet labels
- WMB Inline markers on a reel are suitable for various terminal block sizes
- Same profile across all TOPJOB® S Rail-Mount Terminal Blocks ensures quick labeling

Cable and Conductor Marking

- Different versions available: marking sleeves, self-laminating labels, conductor markers for thread-on mounting or shrink tubes
- Large variety of marking surface sizes

Device Marking

- Broad selection of labels, type plates, fabric labels and type plates optimizes marking for devices and control cabinets
- Marking materials are available in a variety of colors and sizes

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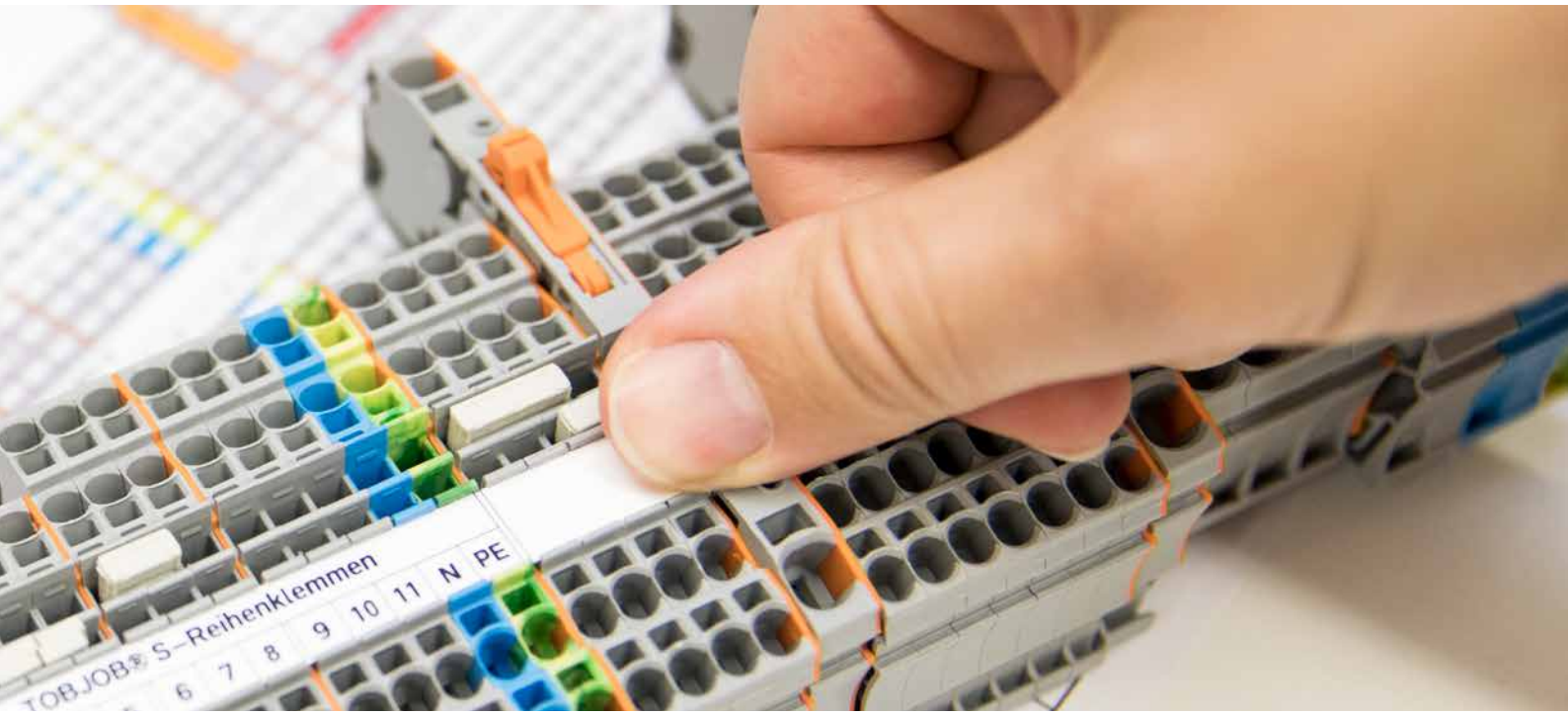


Your Benefits:

- Long-lasting, indelible, scratch-proof printing
- Lower purchase costs thanks to economical marking
- Save time on printing and affixing markings
- Universal application for all control cabinet marking tasks
- Easy installation

Thermal Transfer Printer
Smart Printer
Installation

Open Smart Printer.

Smart Printer is open.

Secure the appropriate roller in the printer.

Insert the entire core of the ink ribbon at the bottom.

Insert the empty core at the top and twist until the empty core has been completely wrapped.

Use the tear-off edge to remove the printed material.

Secure Material inside the Printer

Close Smart Printer.

Loosen the center bar, loosen the wing and place material on the bar.

Secure the second wing on the center bar, resecure the bar in the housing and loosely attach guide rails to the material.

Secure Material outside the Printer

Secure the material on the external unwinder.

Route material through the printer.

Guide the marker strip over the roller.

Place unwinder and material centrally behind the printer.

Loosely fit guide rails to the material.

External Unwinder

Set of external unwinder

Mobile Application

Secure *Bluetooth*® (258-5102) or WiFi Dongle (258-5103) in the USB-A interface.

Download WAGO Smart Script App and couple it to the desired printer in the print preview.

Optional use: Power bank 24 V (258-5104)

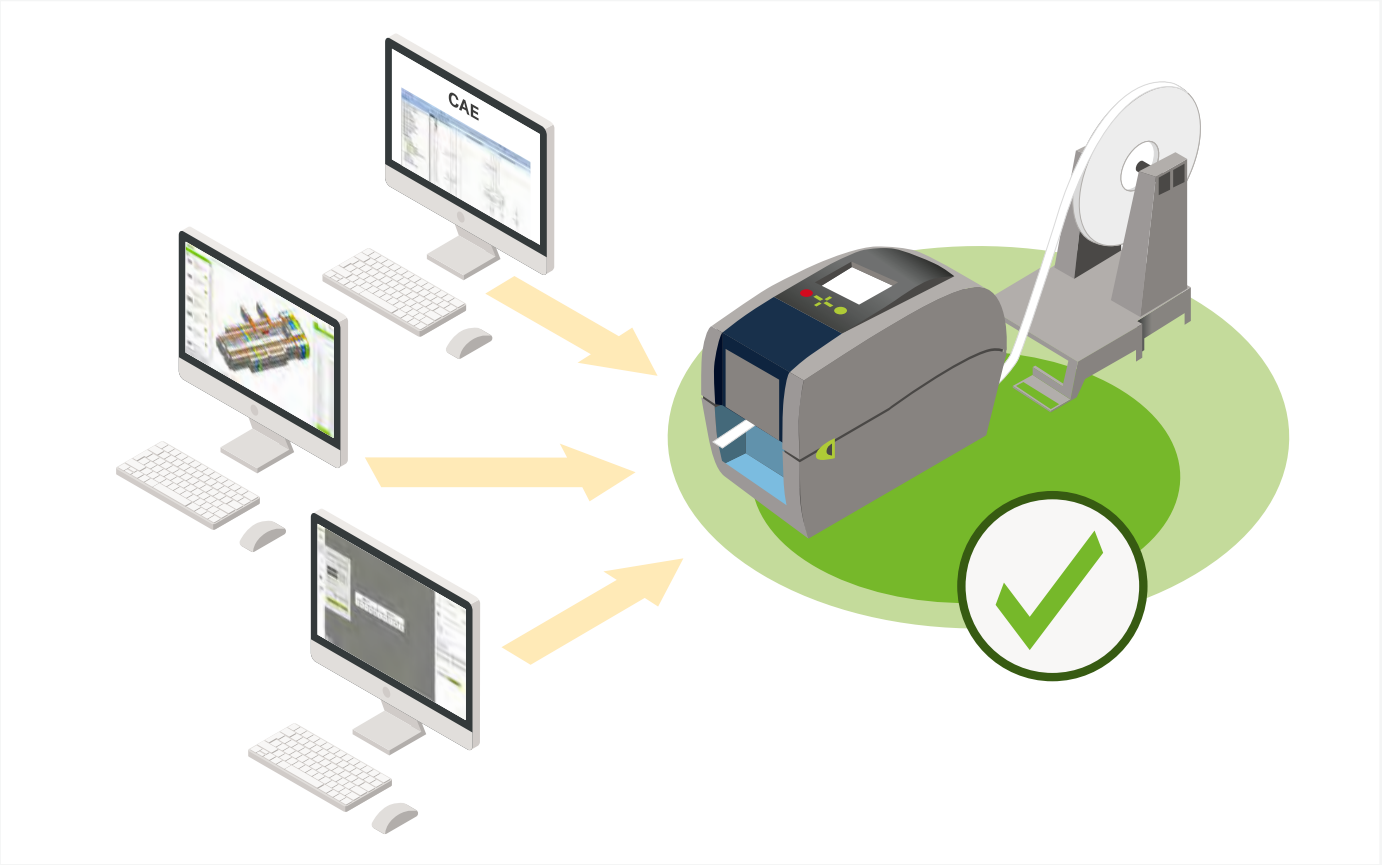
WAGO Marking Software Smart Script
Intuitive Marking Software

With its intuitive operation, this clearly structured marking software is suitable for all WAGO markers. Eliminate duplicated effort and simply export data from Excel or CAE systems for marking your terminal strips.

Combining superior usability with a modern design, Smart Script helps the user complete the task quickly and easily with just a few clicks. For example, Smart Script can be used to easily customize type labels, as well as define and print barcodes and graphic elements.

- Modern design and intuitive workflow
- Fast and easy use thanks to an integrated printer driver and printer settings
- A large selection of different marking media, including templates
- Optimized data interfaces to WAGO Configurator Smart Designer, EPLAN P8, Microsoft Excel, CSV

Printing with the Thermal Transfer Smart Printer



Direct Printing from a CAE System

With the perfect EPLAN interfaces, both terminal block markings and marking accessories for electrical equipment and conductors can be conveniently generated directly from a CAE system. Direct connection to the Thermal Transfer Smart Printer accelerates the manufacturing process.

Generate Marking Data from the Configuration Software

Save time and reduce your costs by printing markings directly from WAGO's Smart Designer Configuration Software on the economical Thermal Transfer Smart Printer. Configured terminal strips can be printed with just a few mouse clicks.

WAGO Marking Software Smart Script

With its intuitive operation, this clearly structured marking software is suitable for all WAGO markers. Eliminate duplicated effort and simply export data from Excel or CAE systems for marking your terminal strips.

Marking device
Printer model: Smart Printer

Connection data	
Interfaces	USB type A, (for BT and WiFi connection), USB type B (for PC connection), RS-232, ETHERNET 10/100 Mbps
System requirements	
Supported operating systems	Windows 7; Windows 8; Windows 10; Windows 11; Linux®
Memory	4 GB
Technical data	
Operating voltage	100 … 240 VAC, 50 … 60 Hz (automatic adjustment)
Print resolution	300 dpi (12 pixels/mm)
Print speed	Max. 127 mm/s (WAGO recommends 50.8 mm/s)
Print width (max.)	47 mm
Print length (max.)	762 mm
Print head	Glass layer, spring-mounted
See-through/reflective sensor	Yes, centrally mounted
Memory	8192 MB
Operating display	Color TFT LCD with navigation button
Safety approvals	CE (EMC)
Ink ribbon	External roll diameter: 40 mm; Internal core diameter: 12.7 mm (0.5 inch); Max. length: 110 m; Max. width: 58 mm
Mechanical data	
Dimensions W x H x D	(135 x 175 x 245) mm
Environmental requirements	
Ambient temperature (operation)	+5 … +40 °C
Ambient temperature (storage)	-20 … +50 °C

10

Accessories for marking devices Page 780

Marking Page 786

Marking device
Printer model: Smart Printer

Scope of delivery: USB Adapter *Bluetooth*® 5.0 Nano (258-5102), tool bag (large) (206-3010), power supply + cable, 2 rollers (258-5006 + 258-5007), 1 reel holder, 1 ink ribbon (258-5005), Smart Script marking software and driver, USB cable, external unwinder, 1 empty cardboard core

258-5100

Item No.	PU
258-5100	1

Scope of delivery: Power supply + cable, 2 rollers (258-5006 + 258-5007), 1 reel holder, 1 ink ribbon (258-5005), Smart Script marking software and driver, USB cable, external unwinder, 1 empty cardboard core

258-5107

Item No.	PU
258-5107	1

Item-Specific Accessories

Tool bag; empty; compatible with L-BOXX® 102; Capacity: 24 kg

Item No.	PU
206-3010	1

USB Adapter 5.0 with Bluetooth®; for WAGO Thermal Transfer Smart Printer

Item No.	PU
258-5102	1

Scope of delivery: Power supply + cable, 2 rollers (258-5006 + 258-5007), 1 roller holder, 1 ink ribbon (258-5005), Smart Script marking software and driver, USB cable, external unwinder, 1 empty cardboard core

258-5108

Item No.	PU
258-5108	1

Item-Specific Accessories

Tool bag; empty; compatible with L-BOXX® 102; Capacity: 24 kg

Item No.	PU
206-3010	1

USB Adapter 5.0 with Bluetooth®; for WAGO Thermal Transfer Smart Printer

Item No.	PU
258-5102	1

Accessories; for all products on this page

WiFi USB Adapter; for WAGO Thermal Transfer Smart Printer

Item No.	PU
258-5103	1

Power Bank; 12 … 24 V; 20100 mAh; for WAGO Thermal Transfer Smart Printer

Item No.	PU
258-5104	1

PU = packaging unit; SPU = subpackaging unit

Accessories for marking devices
Cutter

258-5030

Dimensions W x H x D: (60 x 107 x 131) mm

Item No.	PU
258-5030	1

Hardware requirements:
- Printer model: Smart Printer
- From manufacturing month/year: 0814 – August 2014
- Firmware version: 1.UW7i
- Printer driver: Version 7.4.2

- Software requirements:
- Smart Script: Version 4.2 or higher
- WAGO printer settings: Version 2.4.0.0 or higher

- Approved print material to be cut:
- Marking Strips: 2009-110, 709-177, 709-178, 757-901/000-005
- Self-Adhesive Marking Strips: 210-702, 210-870 ...-882/000-002
- Cable Tie Markers: 211-835 ... -836, 211-836/000-002
- Self-Laminating Labels: 211-855 ... -857
- Wire Markers for Thread-On Mounting: 211-861 ...-863
- Type Labels: 210-801 ... -804, 210-812
- Continuous Labels: 210-831 ... -834
- Label for Circuit Identification: 210-813

- Dimensions of printing materials:
- Width (max.): 46 mm
- Thickness (max.): 250 µm

PU = packaging unit; SPU = subpackaging unit

Accessories for marking devices
Thermal transfer ink ribbon

for all marking accessories from the WAGO product series (except 211-855, 211-856, 211-857)

258-5005

Length: 74 m

Color	Item No.	PU
black	258-5005	1
red	258-5005/000-005	1
white	258-5005/000-008	1

only for 211-855/-856/-857

258-5014

Length: 74 m

Color	Item No.	PU
black	258-5014	1

PU = packaging unit; SPU = subpackaging unit

Accessories for marking devices

Carrying case ▶ for Smart Printer ▶ With foam padding for printer

258-5015

Dimensions W x H x D: (500 x 260 x 230) mm		
Color	Item No.	PU
◯ white	258-5015	1

PU = packaging unit; SPU = subpackaging unit

Accessories for marking devices
Roller

for marking strips, device and equipment markers, conductor and cable markers

258-5006

Item No.	PU
258-5006	1

for Micro WSB Inline markers

258-5011

Item No.	PU
258-5011	1

for Mini-WSB Inline markers

Item No.	PU
258-5008	1

for WMB Inline markers

258-5007

Item No.	PU
258-5007	1

for WMB Inline markers; for Phoenix Contact Rail-Mount Terminal Blocks

258-5009

Item No.	PU
258-5009	1

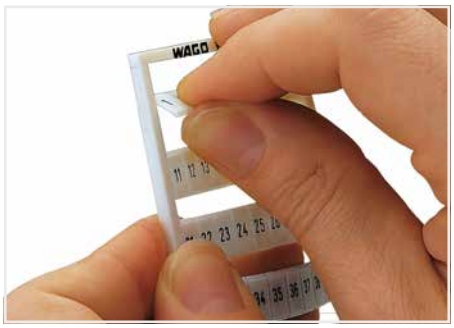
for WMB Inline markers; for Weidmüller Rail-Mount Terminal Blocks

258-5010

Item No.	PU
258-5010	1

PU = packaging unit; SPU = subpackaging unit

Marking Systems
Description and Installation

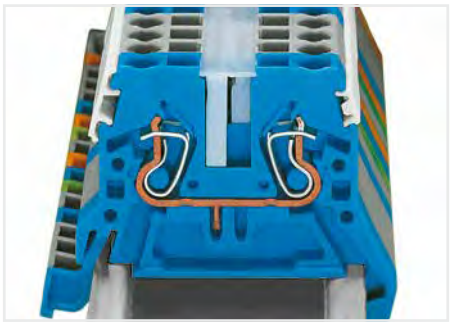


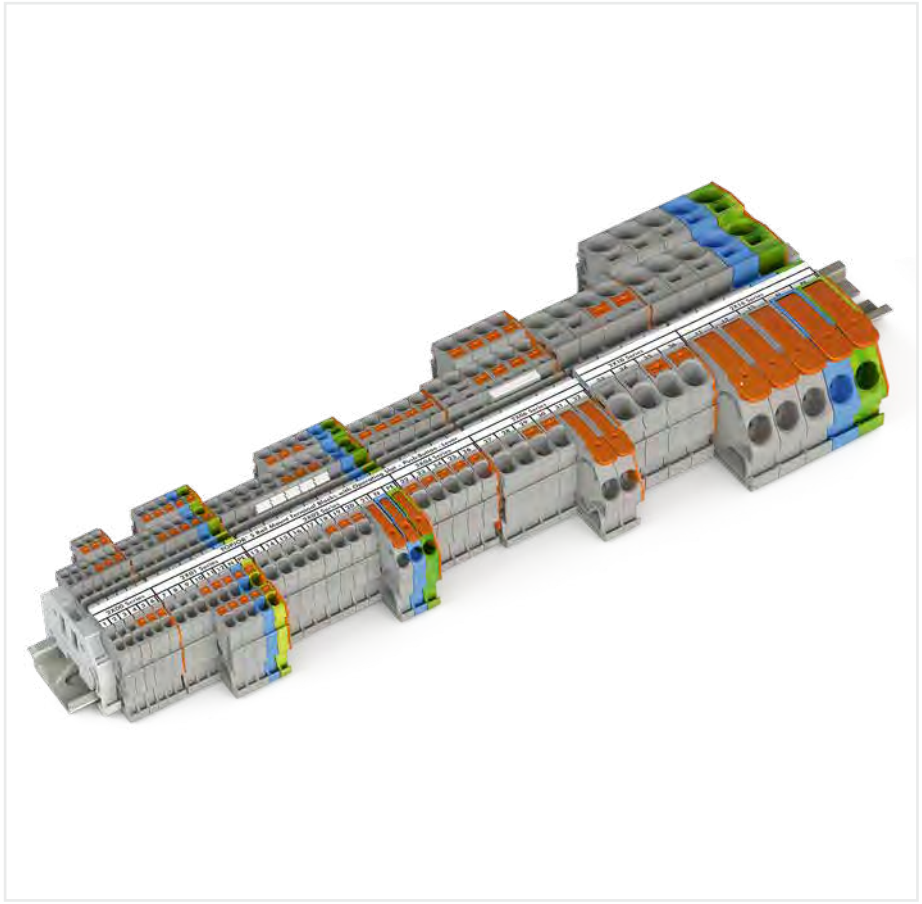
Separating a strip from the WMB or WMB marker card.

Stretching a WMB marker strip.

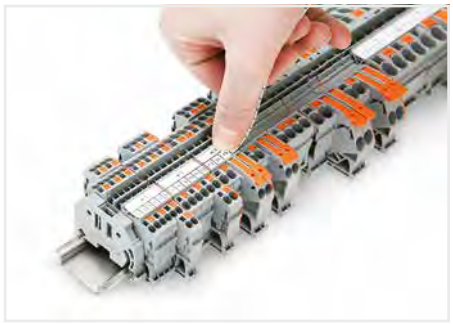
Separating an individual marker from the strip – for larger terminal blocks.

Marking via Mini-WSB Quick Marking System.


WMB markers in Mini-WSB marker slots
Translucent marking strip
Mini-WSB markers



Printing a marking strip (Item No. 2009-110) via Smart Printer.


Snapping a marking strip into the marker slot.

Marking strip – multi-line printing

Snapping a marking strip into the marker slot.

Snapping a WMB marker strip into the marker slot of the double marker carrier.

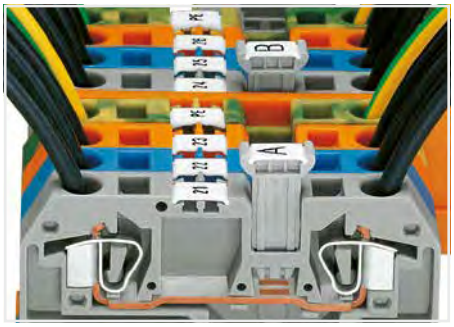
WMB "decade" marking

Group marker carriers for WAGO Rail-Mount Terminal Blocks TOPJOB® S – can be snapped into jumper slots.

Double- and triple-deck marker carriers can be retrofitted into the jumper contact slot of double- and triple-deck terminal blocks.

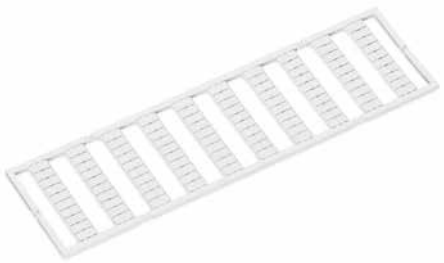
Height adjustable group marker carrier (Item No. 2009-163) for marking strips (Item No. 2009-110)

Height-adjustable group marker carrier



Additional group marking

Marking System
Terminal Block Width: 3.5 mm, 4 … 4.2 mm and from 5 mm



Use		
Marker width	Can be snapped onto the following terminal block series	
	for continuous marking	that will be separated
3.5 mm	2000, 2020	-
4 … 4.2 mm	279, 2001	-
5 … 5.2 mm	270, 280, 780, 869, 870, 880, 2002, 2003, 2022	Terminal blocks with spacing > 5 … 5.2 mm
5 … 17.5 mm	270, 280, 780, 869, 870, 880	281 … 285, 781 … 785, 2002, 2004, 2005, 2006, 2007, 2010, 2016, 2022

WMB marker card ▸ plain ▸ 10 strips with 10 markers/card					
Color	5 mm Item No.	5 … 5.2 mm Item No.	4 … 4.2 mm Item No.	3.5 mm Item No.	Pack. Unit
white	793-501	793-5501	793-4501	793-3501	5
yellow	793-501/000-002	793-5501/000-002	793-4501/000-002		5
red	793-501/000-005	793-5501/000-005	793-4501/000-005		5
blue	793-501/000-006	793-5501/000-006	793-4501/000-006		5
gray	793-501/000-007	793-5501/000-007	793-4501/000-007		5
orange	793-501/000-012	793-5501/000-012	793-4501/000-012		5
light green	793-501/000-017	793-5501/000-017	793-4501/000-017		5
green	793-501/000-023	793-5501/000-023	793-4501/000-023		5
violet	793-501/000-024	793-5501/000-024	793-4501/000-024		5

Use		
Marker width	Can be snapped onto the following terminal block series	
	for continuous marking	that will be separated
3.5 mm	2000, 2020	-
4 … 4.2 mm	279, 2001	-
5 … 5.2 mm	270, 280, 780, 869, 870, 880, 2002, 2003, 2022	Terminal blocks with spacing > 5 … 5.2 mm

WMB Inline ▸ plain ▸ 2,300 WMB markers (3.5 mm)/reel		
Color	3.5 mm Item No.	Pack. Unit
white	2009-113	1

WMB Inline ▸ plain ▸ 2,000 WMB markers (4 mm)/reel ▸ stretchable 4 … 4.2 mm		
Color	4 … 4.2 mm Item No.	Pack. Unit
white	2009-114	1

WMB Inline ▸ plain ▸ 1,500 WMB markers (5 mm)/reel ▸ stretchable 5 … 5.2 mm		
Color	5 … 5.2 mm Item No.	Pack. Unit
white	2009-115	1

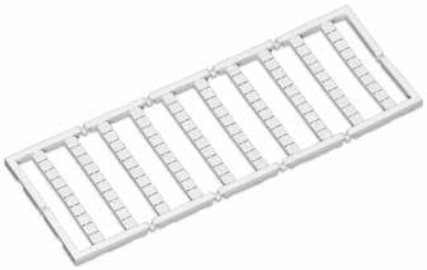
Use	
	Can be snapped onto the following terminal block series
	2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2010, 2016, 2020, 2022

Marking strip ▸ plain ▸ 11 mm wide ▸ 50 m reel		
Color	Item No.	Pack. Unit
white	2009-110	1
yellow	2009-110/020-002	1

10

PU = packaging unit; SPU = subpackaging unit

Mini-WSB Quick Marking System
Terminal Block Width: 5 mm



Use		
Marker width	Can be snapped onto the following terminal block series	
	for continuous marking	that will be separated
5 mm	264, 270, 869, 880, 769, 870, 218, 233 … 236, 243, 250, 252 ··· 257, 735 … 742, 745, 746, 804, 805, 806, 816, 831, 750, 753, 2002, 2003, 2022	745, 746, 2004, 2006, 2007, 2010, 2016

Mini-WSB marker card ▸ plain ▸ 10 strips with 10 markers/card		
Color	Item No.	Pack. Unit
white	248-501	5
yellow	248-501/000-002	5
red	248-501/000-005	5
blue	248-501/000-006	5
gray	248-501/000-007	5
orange	248-501/000-012	5
light green	248-501/000-017	5
green	248-501/000-023	5
violet	248-501/000-024	5

Mini-WSB marker card ▸ with marking ▸ not stretchable ▸ horizontal marking ▸ snap-on type		
Marking	Item No.	Pack. Unit
1, , 2, , 3, , 4, , 5, ; to 46, , 47, , 48, , 49, , 50, ; (each 1x)	264-900	5
U, , V, , W, , N, , PE, ; (10x)	264-901	5
L1, , L2, , L3, , N, , PE, ; (10x)	264-902	5
1, , 1, , 1, , 1, , 1, ; (10x)	264-903	5
2, , 2, , 2, , 2, , 2, ; (10x)	264-904	5
3, , 3, , 3, , 3, , 3, ; (10x)	264-905	5

Use		
Marker width	Can be snapped onto the following terminal block series	
	for continuous marking	that will be separated
5 mm	264, 270, 869, 880, 769, 870, 218, 233 … 236, 243, 250, 252 … 257, 735 … 742, 745, 746, 804, 805, 806, 816, 831, 750, 753, 2002, 2003, 2022	745, 746, 2004, 2005, 2006, 2007, 2010, 2016

Mini-WSB Inline ▸ plain ▸ 1,700 markers (5 mm)/reel ▸ stretchable 5 … 5.2 mm		
Color	Item No.	Pack. Unit
white	2009-145	1

10

PU = packaging unit; SPU = subpackaging unit

Shield Connection System
790 Series
Installation

Carrier with grounding foot* (790-113),
45 mm long, busbar 90° to the rail

*for all shield clamping saddle sizes

Carrier with grounding foot* (790-114),
45 mm long, busbar parallel to the rail

*for all shield clamping saddle sizes

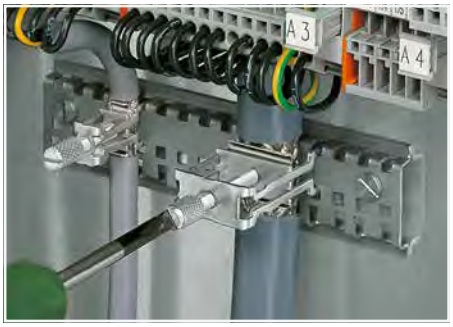
Carrier with grounding foot* (790-115),
125 mm long, busbar parallel to the rail

*for all shield clamping saddle sizes

Securing a spacer sleeve to a specialty slotted DIN-rail.

Securing an additional shield clamping saddle.

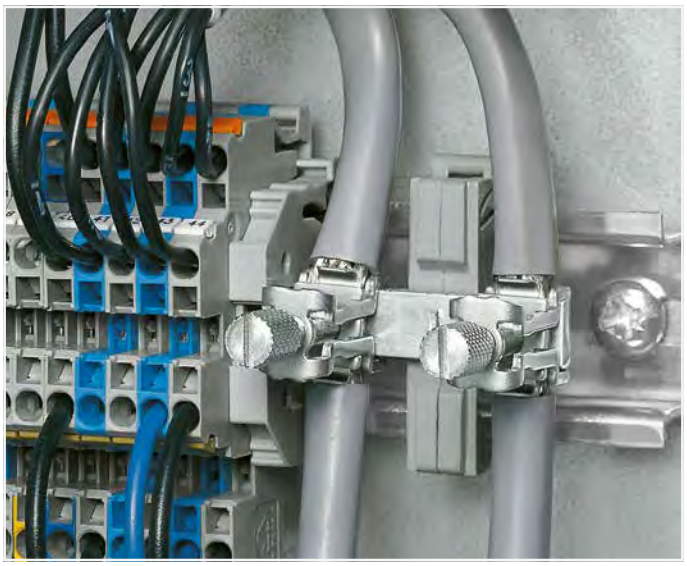
Tightening/removing a shield clamping saddle.



After connection, tighten the knurled screw to complete the installation.
Recommended tightening torque: 0.5 Nm

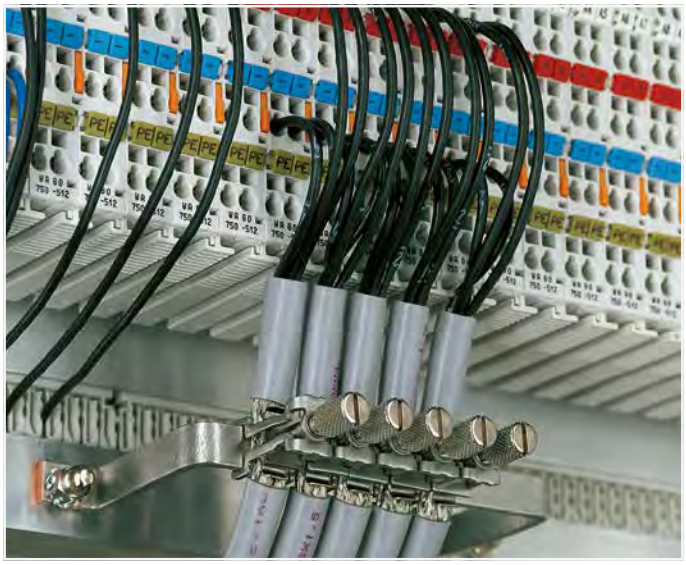
To remove the clamping saddle, unscrew until ratcheted mechanism is released, then slightly tip saddle and remove the clamping saddle.

Shield Connection System
790 Series
Installation

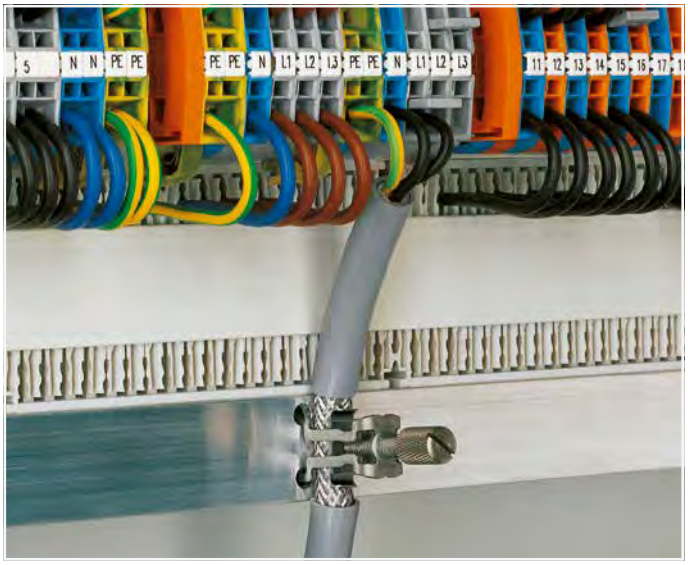


Carrier with grounding foot – busbar parallel to the rail

Insulated mounting carriers for a common shield reference potential, independent of housing potential

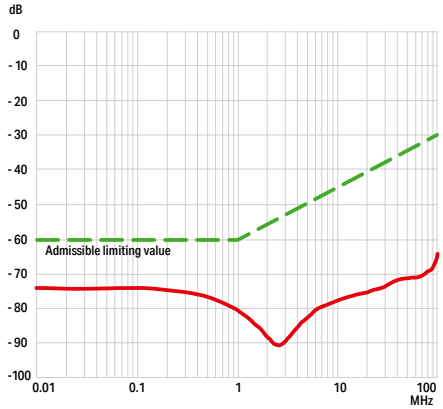


U-shaped (10 x 3) mm copper busbar



Snap shield clamping saddles into any metal plate (max. thickness: 3 mm).

Negative Shield Attenuation

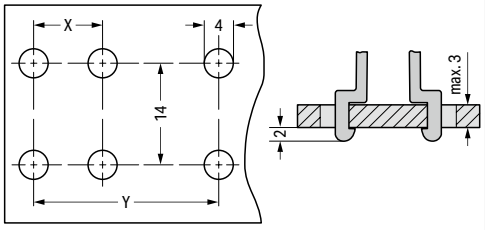


The shield connection system is highly effective because the clamping unit can be brought very close to the unshielded part of the cable.

Hole Dimensions for Panel Mounting

Shield (screen) clamping saddle size

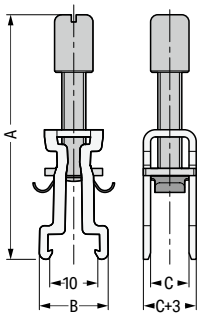
Distance	X
11 mm	9.5 mm
Distance	Y
19 mm	17.5 mm
27 mm	25.5 mm
43 mm	41.5 mm



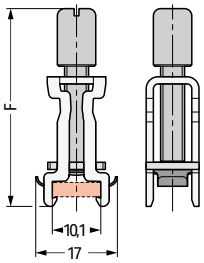
Additionally, the spring material is part of the clamping saddle, providing a good electrical connection (the system also acts as a partial strain relief). The spring element integrated in the shield clamping saddle compensates for deformation and settling that results from a connected shield.

Shield Clamping Saddles
790 Series

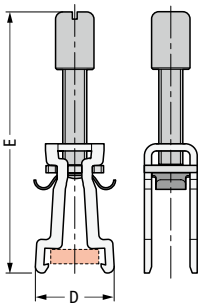
Installation position (delivery state)



Closed position



Removal position



Dimensions in mm

Item No.	A	B	C	D	E	F
790-108	51	15	8	16	55	42
790-116	53	15	16	16	57	45
790-124	78	15	24	16	83	58
790-140	97	15	40	16	100	73

Shield clamping saddle ▸ 11 mm wide ▸ Connectable shield diameter: 3 … 8 mm
Note: Cannot be used for connecting ground conductors!

Item No.	PU
790-108	50 (10)

Shield clamping saddle ▸ 19 mm wide ▸ Connectable shield diameter: 7 … 16 mm
Note: Cannot be used for connecting ground conductors!

Item No.	PU
790-116	50 (10)

Shield clamping saddle ▸ 27 mm wide ▸ Connectable shield diameter: 6 … 24 mm
Note: Cannot be used for connecting ground conductors!

Item No.	PU
790-124	50 (10)

Accessories; for Shield Clamping Saddles

Carrier with grounding foot; Busbar parallel to the rail; 15 mm long; Copper (10 x 3) mm; for shield clamping saddles (790-108)

790-110 25

Carrier with grounding foot; Busbar parallel to the rail; 25 mm long; Copper (10 x 3) mm; for shield clamping saddles (790-108; 790-116) and shield clamps (791-111; 791-117)

790-112 25

Carrier with grounding foot; Busbar 90° to the DIN-rail; 45 mm long; Copper (10 x 3) mm; for shield clamping saddles (790 Series)

790-113 25

Carrier with grounding foot; Busbar parallel to the DIN-rail; 45 mm long; Copper (10 x 3) mm; for shield clamping saddles (790 Series) and shield clamps (791 Series)

790-114 25

Carrier with two grounding feet; Busbar parallel to the DIN-rail; 125 mm long; Copper (10 x 3) mm

790-115 25

DIN-rail; specialty slotted; 1000 mm long; tin-plated

790-145

Spacer sleeve; steel; for DIN-rail; specialty slotted; for M5-size screw;

790-144 200 (100)

Insulated mounting foot; for busbar with M4 x 8 mm screw

790-100 50 (25)

Insulated mounting foot; for busbar with (3.5 x 9) mm sheet metal screw

790-101 50 (25)

Busbar; tin-plated; 1000 mm long; copper (10 x 3) mm

210-133 1

Busbar; tin-plated; 30 mm long; copper (10 x 3) mm

790-133 20

Busbar; tin-plated; 50 mm long; copper (10 x 3) mm

790-134 20

U-shaped busbar; Copper (10 x 3) mm; for 5 I/O; for 750 Series I/O Modules

790-190 25 (5)

U-shaped busbar; Copper (10 x 3) mm; for 8 I/O; for 750 Series I/O Modules

790-191 25

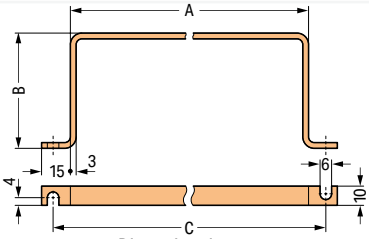
U-shaped busbar; Copper (10 x 3) mm; for 5 I/O; for 750 Series I/O Modules

790-192 25

U-shaped busbar; Copper (10 x 3) mm; for 8 I/O; for 750 Series I/O Modules

790-193 25

10



Dimensions in mm

Item No.	A	B	C	Item No.	A	B	C
for I/O module series 750 (5 E/A)							
790-190	63	60	83	**790-192**	63	35	83
for I/O module series 750 (8 E/A)							
790-191	100	60	118	**790-193**	100	35	118

Shield clamping saddle ▸ 43 mm wide ▸ Connectable shield diameter: 22 … 40 mm
Note: Cannot be used for connecting ground conductors!

	Item No.	PU
	790-140	50 (10)

Carrier with grounding foot* (790-114), 45 mm long, busbar parallel to the rail

*for all shield clamping saddle sizes

Carrier with grounding foot* (790-115), 125 mm long, busbar parallel to the rail

*for all shield clamping saddle sizes

Spring-Equipped Shield Clamping Saddles
790 Series
Installation

Shield clamping saddles are available in three different sizes for shield diameters ranging from 3 to 20 mm.

Application example

Compress the clamping saddle until fully engaged.

Mounting a clamping saddle on a specialty slotted DIN-rail (790-145).
When releasing the saddle, do not place your finger under the clamping spring!

Removing the shield clamping saddle.

Shield clamping saddle contacts shield conductor and specialty slotted DIN-rail (790-145).

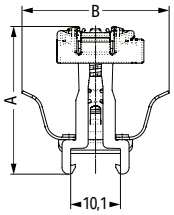
Labeling using a marking strip.

Labelling using WMB markers.

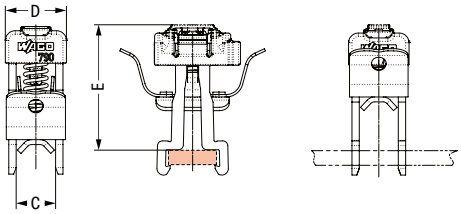
10

Spring-Equipped Shield Clamping Saddles
790 Series

Delivery position



Mounting position



Dimensions in mm

Item No.	A	B	C	D	E*
790-208	30	29.9	8	12.4	25.8
790-216	34.6	28.3	16	21.8	30.2
790-220	45.6	28.3	24	30	41.2

*Height with WMB marker

Shield clamping saddle ▸ 12.4 mm wide ▸ Connectable shield diameter: 3 … 8 mm
Note: Cannot be used for connecting ground conductors and strain relief!

Item No.	PU
790-208	50

Shield clamping saddle ▸ 21.8 mm wide ▸ Connectable shield diameter: 6 … 16 mm
Note: Cannot be used for connecting ground conductors and strain relief!

Item No.	PU
790-216	25

Shield clamping saddle ▸ 30 mm wide ▸ Connectable shield diameter: 6 … 20 mm
Note: Cannot be used for connecting ground conductors and strain relief!

Item No.	PU
790-220	25

Accessories; for Shield Clamping Saddles

Carrier with grounding foot; Busbar parallel to the rail; 15 mm long; Copper (10 x 3) mm; for shield clamping saddles (790-108)

790-110 25

Carrier with grounding foot; Busbar parallel to the rail; 25 mm long; Copper (10 x 3) mm; for shield clamping saddles (790-108; 790-116) and shield clamps (791-111; 791-117)

790-112 25

Carrier with grounding foot; Busbar 90° to the DIN-rail; 45 mm long; Copper (10 x 3) mm; for shield clamping saddles (790 Series)

790-113 25

Carrier with grounding foot; Busbar parallel to the DIN-rail; 45 mm long; Copper (10 x 3) mm; for shield clamping saddles (790 Series) and shield clamps (791 Series)

790-114 25

Carrier with two grounding feet; Busbar parallel to the DIN-rail; 125 mm long; Copper (10 x 3) mm

790-115 25

DIN-rail; specialty slotted; 1000 mm long; tin-plated

790-145

Spacer sleeve; steel; for DIN-rail; specialty slotted; for M5-size screw;

790-144 200 (100)

Busbar; tin-plated; 1000 mm long; copper (10 x 3) mm

210-133 1

Busbar; tin-plated; 30 mm long; copper (10 x 3) mm

790-133 20

Busbar; tin-plated; 50 mm long; copper (10 x 3) mm

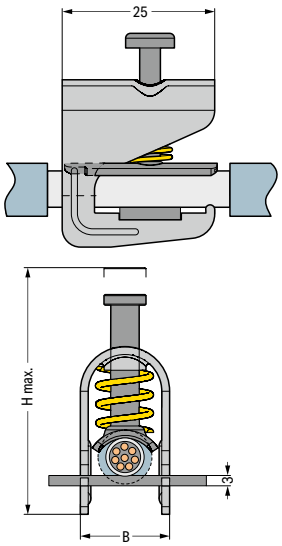
790-134 20

10

Shield Clamp and Shield Termination
791 and 709 Series

Dimensions in mm

Insert the shield termination into the female plug using the operating tool.



Fit the shield termination to the shield cable.

Shield clamp ▸ Connectable shield diameter: 1.5 … 6.5 mm ▸ Height (max.): 40 mm ▸ 10 mm wide Note: Cannot be used for connecting ground conductors!		
	Item No.	PU
	791-107	50

Shield clamp ▸ Connectable shield diameter: 5 … 11 mm ▸ Height (max.): 47 mm ▸ 17 mm wide Note: Cannot be used for connecting ground conductors!		
	791-111	50

Shield clamp ▸ Connectable shield diameter: 10 … 17 mm ▸ Height (max.): 63 mm ▸ 23 mm wide Note: Cannot be used for connecting ground conductors!		
	791-117	50

Shield clamp ▸ Connectable shield diameter: 16 … 24 mm ▸ Height (max.): 78 mm ▸ 30 mm wide Note: Cannot be used for connecting ground conductors!		
	791-124	50

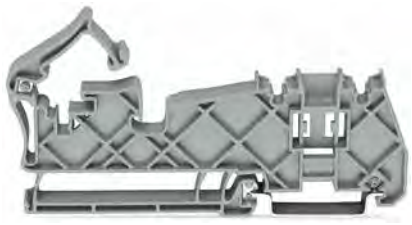
Shield termination ▸ includes cable ties for 5 … 10 mm shield diameter ▸ 60 mm long		
	Item No.	PU
	709-350	100 (25)

Shield termination ▸ includes cable ties for 5 … 10 mm shield diameter ▸ 150 mm long		
	709-352	100 (25)

Secure both shield cable and shield termination to the strain relief plate using cable ties.

Shield termination connected to an X-COM® female plug

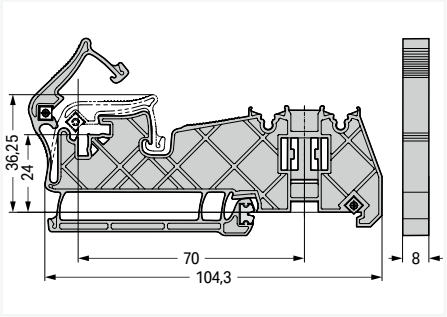
Busbar Carriers
790 Series



Dimensions in mm

Snapping the busbar carrier onto DIN-35 rail.

Vertical mounting position of the busbar

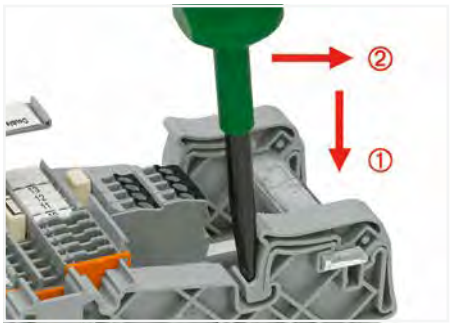


Busbar carrier; for (10 x 3) mm copper busbars ▸ no contact to DIN-rail ▸ insulated		
	Item No.	PU
	790-400	20

Place the busbar in the carrier holder.

Horizontal mounting position of the busbar

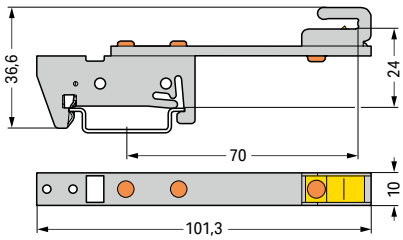
Snap the mounting bracket into position.



Release the mounting bracket by pushing the operating tool down ① and then forward ②.

Busbar Carriers
790 Series

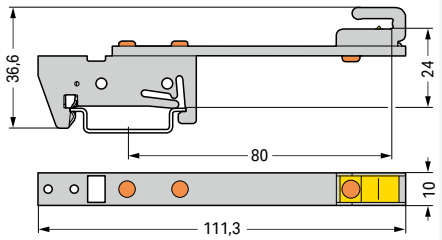
Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars ▸ single side ▸ straight ▸ 70 mm between center of DIN-rail and busbar carrier

Item No.	PU
790-300	10

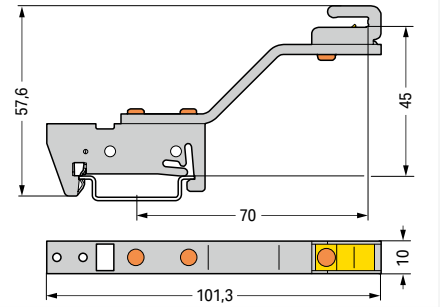
Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars; single side ▸ straight ▸ 80 mm between center of DIN-rail and busbar carrier

Item No.	PU
790-302	10

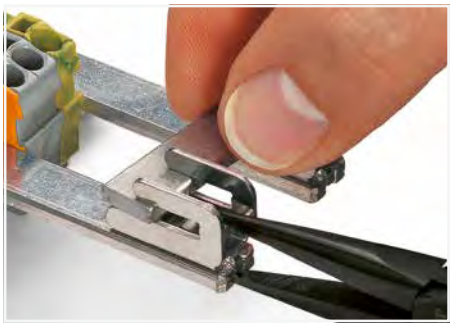
Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars ▸ single side ▸ angled ▸ 70 mm between center of DIN-rail and busbar carrier

Item No.	PU
790-301	10

Remove the busbar carrier using an operating tool (type 3, 5.5 x 0.8 mm blade).

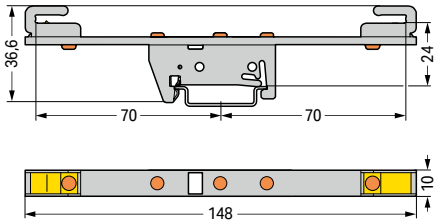


To remove the busbar, compress the spring using pliers.

Place the busbar in the busbar carrier.

Busbar Carriers
790 Series

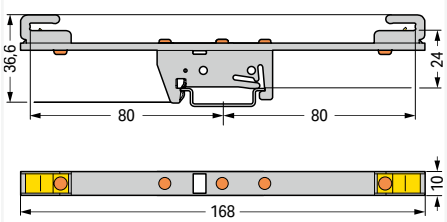
Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars ▸ both sides ▸ straight ▸ 70 mm between center of DIN-rail and busbar carrier

	Item No.	PU
	790-310	10

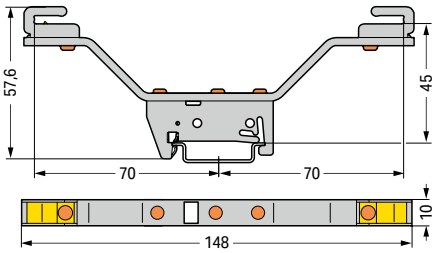
Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars ▸ both sides ▸ straight ▸ 80 mm between center of DIN-rail and busbar carrier

	Item No.	PU
	790-312	10

Dimensions in mm



Busbar carrier ▸ for (10 x 3) mm copper busbars ▸ both sides ▸ angled ▸ 70 mm between center of DIN-rail and busbar carrier

	Item No.	PU
	790-311	10

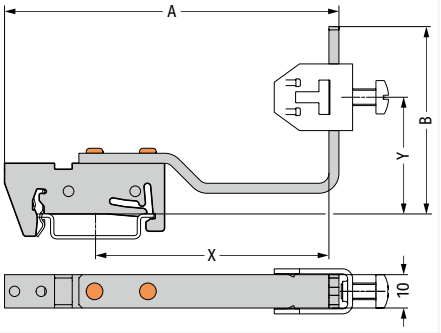
Application example

Busbar Carrier with a T-Connector (Flexible) and T-Connector
790 Series

Horizontal mounting position of the busbar

Dimensions in mm

	A	B	X	Y
790-350/790-398	100	56	70	15 ... 52
790-352/790-398	100	99	70	15 ... 92
790-360/790-398	115	56	85	15 ... 52
790-362/790-398	115	99	85	15 ... 92



Busbar carrier with a T-connector ▸ flexible ▸ for (10 x 3) mm copper busbars ▸ 70 mm between center of DIN-rail and busbar carrier ▸ 56 mm high

Item No.	PU
790-350/790-398	12

Busbar carrier with a T-connector ▸ flexible; for (10 x 3) mm copper busbars ▸ 70 mm between center of DIN-rail and busbar carrier ▸ 99 mm high

790-352/790-398	12

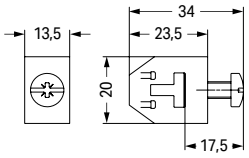
Busbar carrier with a T-connector ▸ flexible ▸ for (10 x 3) mm copper busbars ▸ 85 mm between center of DIN-rail and busbar carrier ▸ 56 mm high

790-360/790-398	12

Busbar carrier with a T-connector ▸ flexible ▸ for (10 x 3) mm copper busbars ▸ 85 mm between center of DIN-rail and busbar carrier ▸ 99 mm high

790-362/790-398	12

Dimensions in mm



T-connector ▸ connects two (10 x 3) mm copper busbars

Item No.	PU
790-398	

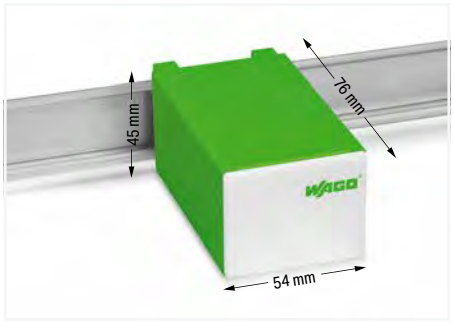
Vertical mounting position of the busbar

The height of the busbar can be adjusted.

Secure the busbar by tightening the screws at the required position.

10

Control Cabinet Outlet ▶ for Plug, Type F
709 Series



Technical Data		
Ratings per	DIN VDE 0620-1	
Voltage type	AC	
Rated voltage	250 V	
Rated surge voltage	2 kV	
Rated current	16 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Type 2 (3.5 x 0.5) mm blade
Actuation direction	Operation parallel to conductor entry
Connectable conductor materials	Copper
Solid conductor	0.2 … 2.5 mm / 24 … 14 AWG
Stranded conductor	0.2 … 2.5 mm / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Number of poles	3

Mechanical Data	
Mounting type	DIN-35 rail
Protection type	IP20
Potential marking	L PE N

Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Sn

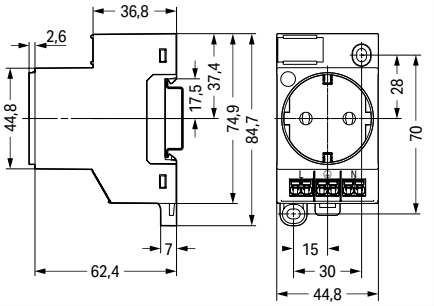
Environmental Requirements	
Continuous operating temperature from	-35 °C
Continuous operating temperature up to	85 °C

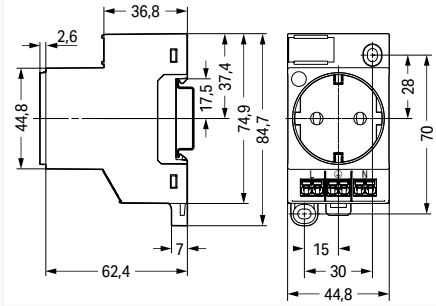
10

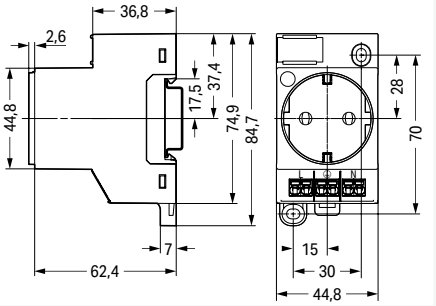
❶ The outlets are available in three colors to identify different circuits:
- 709-581 gray (standard)
- 709-582 yellow (permanently energized)
- 709-583 red (UPS)

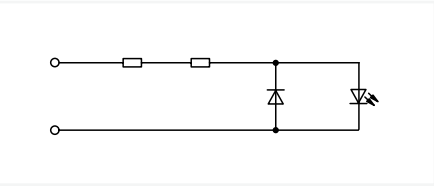
Approvals and corresponding ratings, visit www.wago.com

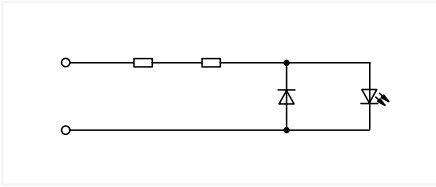
Control Cabinet Outlet ▸ for Plug, Type F
709 Series

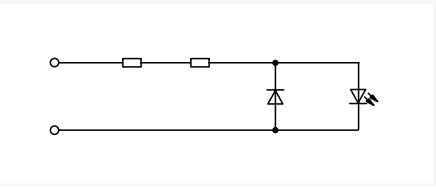








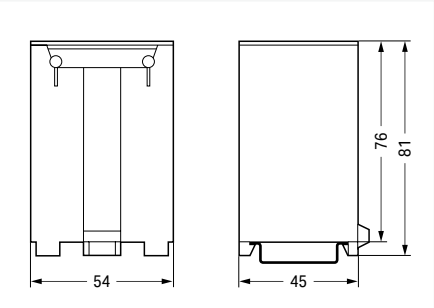




Control cabinet outlet ▸ for DIN-35 rail and screw mounting ▸ for plug, type F, CEE 7/4 (SCHUKO®) ▸ used in Germany, the Netherlands, Austria ▸ with status LED ▸ with Push-in CAGE CLAMP® double connection		
Color	Item No.	Pack. Unit
light gray	709-581	1

Control cabinet outlet ▸ for DIN-35 rail and screw mounting ▸ for plug, type F, CEE 7/4 (SCHUKO®) ▸ used in Germany, the Netherlands, Austria ▸ with status LED ▸ with Push-in CAGE CLAMP® double connection		
Color	Item No.	Pack. Unit
yellow	709-582	1

Control cabinet outlet ▸ for DIN-35 rail and screw mounting ▸ for plug, type F, CEE 7/4 (SCHUKO®) ▸ used in Germany, the Netherlands, Austria ▸ with status LED ▸ with Push-in CAGE CLAMP® double connection		
Color	Item No.	Pack. Unit
red	709-583	1



Switchgear cabinet drawer; DIN-35 rail-mount drawer		
	Item No.	Pack. Unit
	709-591	1

PU = packaging unit; SPU = subpackaging unit

Control Cabinet Outlet ▶ for Plug, Type E
709 Series

Technical Data		
Ratings per	DIN VDE 0620-1	
Voltage type	AC	
Rated voltage	250 V	
Rated surge voltage	2 kV	
Rated current	16 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Type 2 (3.5 x 0.5) mm blade
Actuation direction	Operation parallel to conductor entry
Connectable conductor materials	Copper
Solid conductor	0.2 … 2.5 mm / 24 … 14 AWG
Stranded conductor	0.2 … 2.5 mm / 24 … 14 AWG
Fine-stranded conductor	0.2 … 2.5 mm / 24 … 14 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Number of poles	3

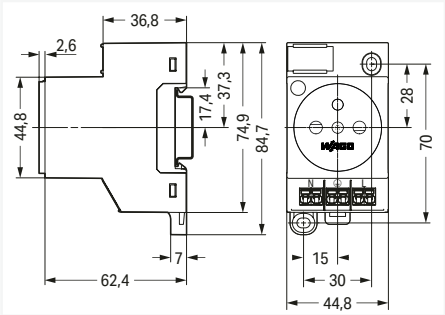
Mechanical Data	
Mounting type	DIN-35 rail
Protection type	IP20
Potential marking	L PE N

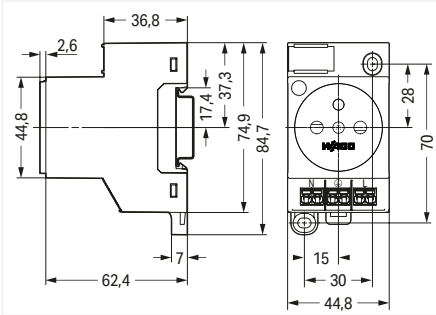
Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Sn

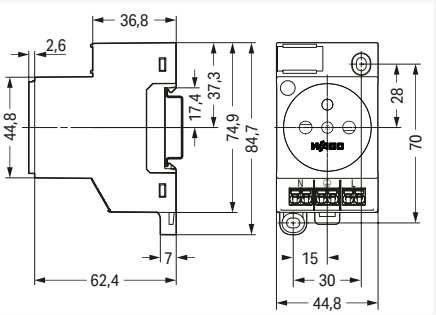
Environmental Requirements	
Continuous operating temperature from	-35 … +85 °C

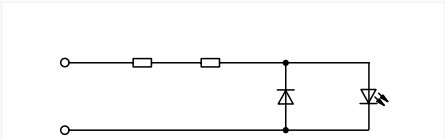
Approvals and corresponding ratings,
visit www.wago.com

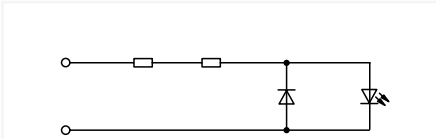
Control Cabinet Outlet ▸ for Plug, Type E
709 Series

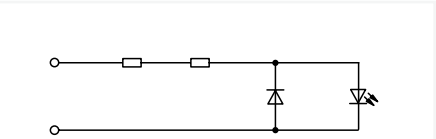












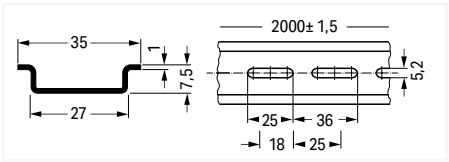
Switchgear cabinet outlet ▸ for DIN-rail and screw mounting ▸ for plug, type E, CEE 7/5 ▸ common in FR, BE, PL ▸ with LED status indicator ▸ with Push-in Cage Clamp double connection		
Color	Item No.	Pack. Unit
○ light gray	709-571	1

Switchgear cabinet outlet ▸ for DIN-rail and screw mounting ▸ for plug, type E, CEE 7/5 ▸ common in FR, BE, PL ▸ with LED status indicator ▸ with Push-in Cage Clamp double connection		
Color	Item No.	Pack. Unit
● yellow	709-572	1

Switchgear cabinet outlet ▸ for DIN-rail and screw mounting ▸ for plug, type E, CEE 7/5 ▸ common in FR, BE, PL ▸ with LED status indicator ▸ with Push-in Cage Clamp double connection		
Color	Item No.	Pack. Unit
● red	709-573	1

PU = packaging unit; SPU = subpackaging unit

DIN-Rail, Rail End Cap, Angled Support Bracket and Collective Jumper Carrier



Steel DIN-rail ▸ I_N 76 A (based on 1 m length) ▸ 35 x 7.5 mm ▸ 1 mm thick ▸ 2 m long ▸ per EN 60715

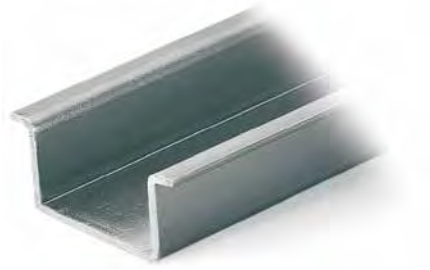
	Item No.	Pack. Unit
unslotted	210-113	10 (1)

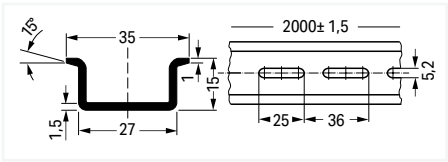
Hole width: 25 mm ▸ Hole spacing: 36 mm

slotted	210-112	10 (1)

Hole width: 18 mm ▸ Hole spacing: 25 mm

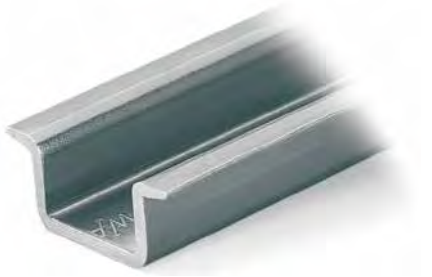
slotted	210-115	1

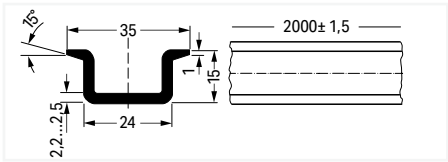




Steel DIN-rail ▸ I_N 125 A (based on 1 m length) ▸ 35 x 15 mm ▸ 1.5 mm thick ▸ 2 m long ▸ similar to EN 60715

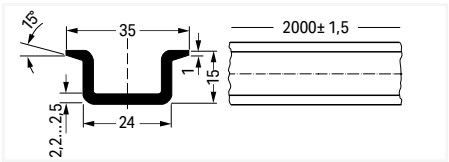
	Item No.	Pack. Unit
unslotted	210-114	10 (1)
slotted	210-197	10 (1)





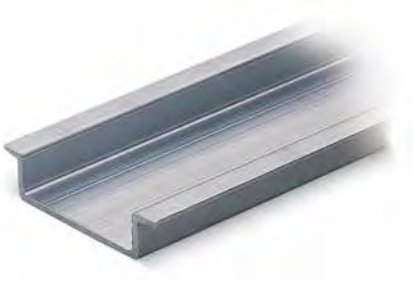
Steel DIN-rail ▸ I_N 125 A (based on 1 m length) ▸ 35 x 15 mm ▸ 2.3 mm thick ▸ 2 m long ▸ per EN 60715

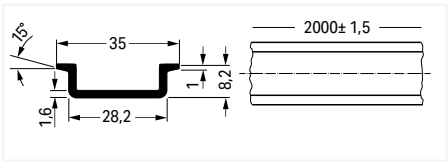
	Item No.	Pack. Unit
unslotted	210-118	10 (1)



Copper DIN-rail ▸ I_N 309 A (based on 1 m length) ▸ 35 x 15 mm ▸ 2.3 mm thick ▸ 2 m long ▸ per EN 60715

	Item No.	Pack. Unit
unslotted	210-198	10 (1)





Aluminum DIN-rail ▸ I_N 76 A (based on 1 m length) ▸ 35 x 8.2 mm ▸ 1.6 mm thick ▸ 2 m long ▸ similar to EN 60715

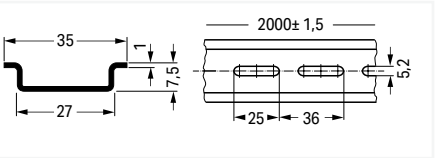
	Item No.	Pack. Unit
unslotted	210-196	20 (1)

Rail end cap ▸ for DIN-35 rail (7.5 mm high)

Color	Item No.	Pack. Unit
◯ gray	209-109	50 (25)

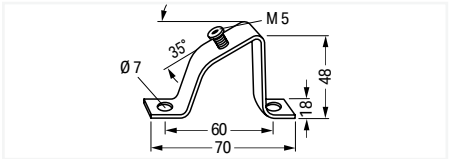
10

PU = packaging unit; SPU = subpackaging unit



Steel DIN-rail ▸ I_N 76 A (based on 1 m length) ▸ 35 x 7.5 mm ▸ 1 mm thick ▸ 2 m long ▸ per EN 60715

	Item No.	Pack. Unit
unslotted	210-505	1
slotted	210-504	1

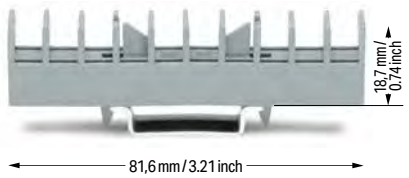


Angled support bracket ▸ without screw

	Item No.	Pack. Unit
	210-148	10

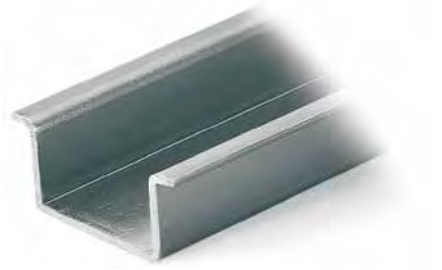
Screw M5 x 8

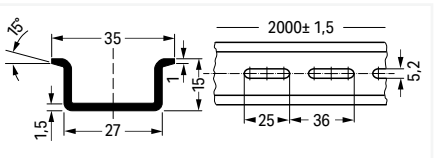
	Item No.	Pack. Unit
	210-149	100 (20)



Collective jumper carrier ▸ for DIN-35 rail ▸ compatible with jumpers for transverse switching terminal block (282-811) and longitudinal switching disconnect terminal block (282-821)
The collective carrier can be snapped onto DIN-35 rails. It stores jumpers during maintenance.

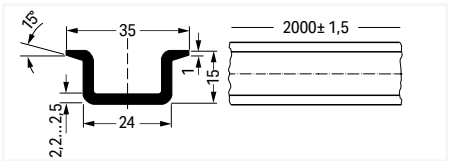
Color	Item No.	Pack. Unit
gray	282-369	25





Steel DIN-rail ▸ I_N 125 A (based on 1 m length) ▸ 35 x 15 mm ▸ 1.5 mm thick ▸ 2 m long ▸ per EN 60715

	Item No.	Pack. Unit
unslotted	210-506	1
slotted	210-508	1



Carrier rail ▸ plastic
Not suited for use with ground terminal blocks!

	Item No.	Pack. Unit
	210-509	10 (1)

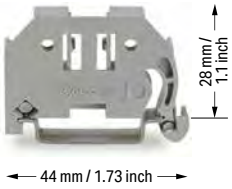
Collective carrier for adjacent jumpers ▸ for DIN-35 rail ▸ for adjacent jumpers (279 to 284 Series) ▸ for banana plugs (215 Series)
The collective carrier can be snapped onto DIN-35 rails. It stores adjacent jumpers and banana plugs during maintenance.

Color	Item No.	Pack. Unit
gray	209-100	50 (25)

10

PU = packaging unit; SPU = subpackaging unit

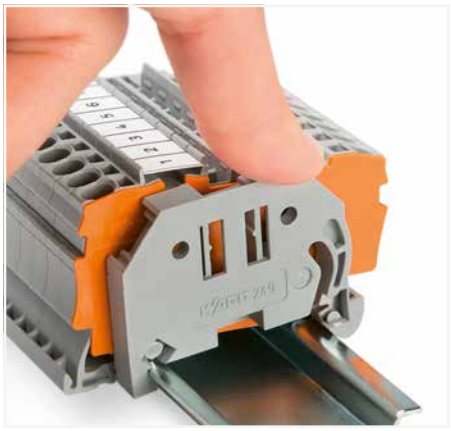
Screwless End Stop ▸ for DIN-35 Rail
249 Series



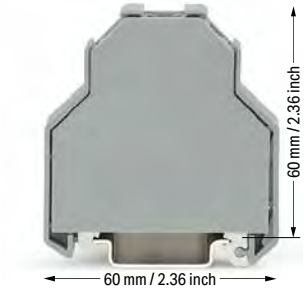
Screwless end stop ▸ for DIN-35 rail ▸ 6 mm wide		
Color	Item No.	Pack. Unit
◯ gray	249-116	100 (25)

Screwless end stop ▸ for DIN-35 rail ▸ 10 mm wide		
◯ gray	249-117	50 (25)

Simply snap on – that's it!



Simply snap on – that's it!



Screwless end stop ▸ for DIN-35 rail ▸ 14 mm wide		
Color	Item No.	Pack. Unit
◯ gray	249-197	10

Simply snap on – that's it!

Removing an end stop from the DIN-rail.

Snap on – that's it! Assembling the WAGO Screwless End Stop is as simple and quick as snapping a rail-mount terminal block onto the rail.

Tool free!

A tool-free design allows rail-mount terminal blocks to be safely and economically secured against any movement on all DIN-35 rails per DIN EN 60715 (35 x 7.5 mm; 35 x 15 mm).

Screwless!

The "secret" to a perfect fit lies in the two small clamping plates which keep the end stop in position, even if the rails are mounted vertically.

Simply snap on – that's it.

In addition, costs are significantly reduced when using large numbers of end stops.

Additional benefit: Three marker slots for all WAGO Rail-Mount Terminal Block Marking Systems and one snap-in hole for WAGO's adjustable height group marker carriers offer individual marking options.

10

PU = packaging unit; SPU = subpackaging unit

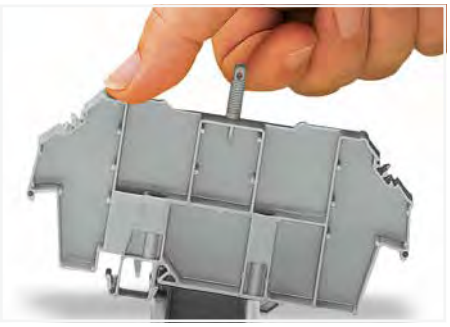
Mounting Foot

Mounting foot ▶ for isolated DIN-35 rail mounting		
Color	Item No.	Pack. Unit
gray	209-106	25

Isolated mounting of a carrier rail in a distribution box for protection class II

PU = packaging unit; SPU = subpackaging unit

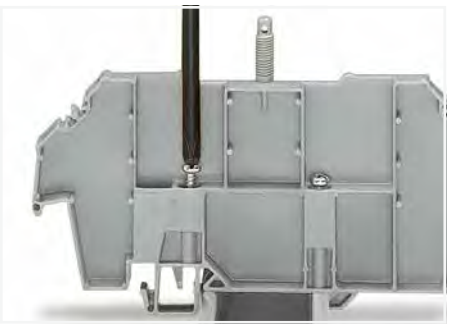
Sealable, Transparent Covers for Rail-Mount Terminal Blocks
709 Series
Description and Installation



Snapping a cover carrier onto the DIN-rail.

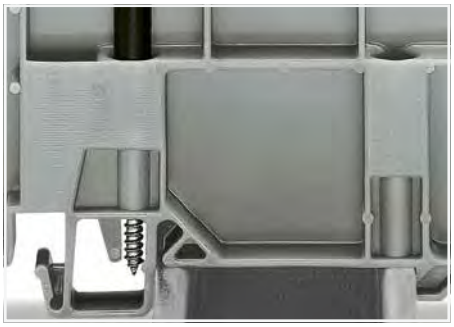
Application example:
Cover (type 1) without safety warning

Application example:
Cover (type 1) with safety warning

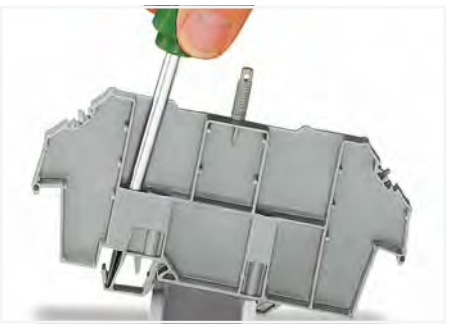


Tightening both securing screw (left) and mounting screw (right).

Application example:
Cover (type 2) with safety warning



Securing screw – prevents lifting off from the rail.
Mounting screw – prevents the cover carrier from being moved on the rail.



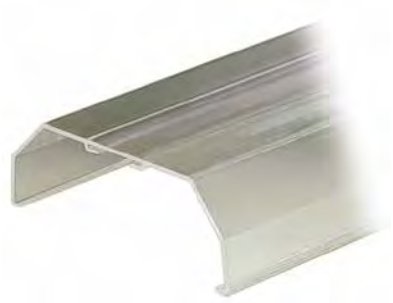
Removing a cover carrier from the DIN-rail.

Inserting a marking strip into the cover.

Cover with lead seals:
Using covers without lead seals,
the thread dome-head can be broken off.

PU = packaging unit; SPU = subpackaging unit

Sealable, Transparent Cover ▸ for Rail-Mount Terminal Blocks
709 Series

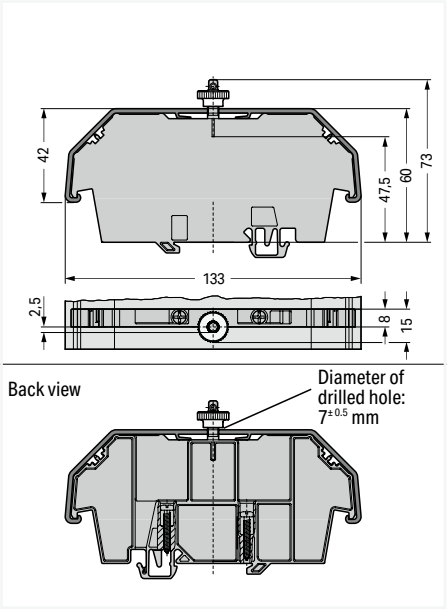


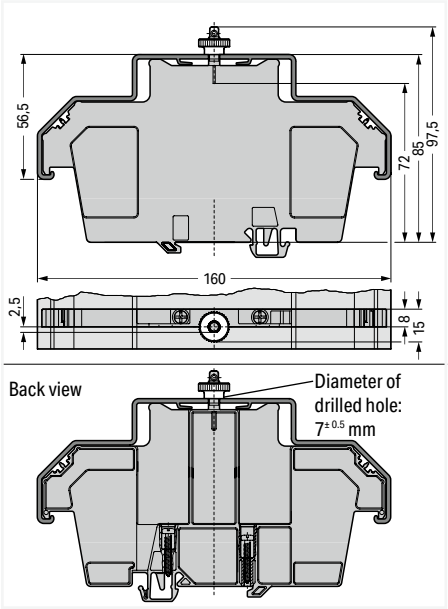
Cover ▸ Type 1 ▸ for cover carrier (type 1) ▸ 1 m long		
Color	Item No.	Pack. Unit
transparent	709-153	10

Cover ▸ Type 2 ▸ for cover carrier (type 2) ▸ 1 m long		
Color	Item No.	Pack. Unit
transparent	709-154	10

Cover carrier ▸ Type 1 ▸ incl. mounting/securing screws and knurled nut ▸ for rail-mount terminal blocks (279 to 282, 880 Series) ▸ for "Mini" rail-mount terminal blocks (264 Series) ▸ for sensor/actuator terminal blocks (270 Series)		
Color	Item No.	Pack. Unit
gray	709-167	10

Cover carrier ▸ Type 2 ▸ incl. mounting/securing screws and knurled nut ▸ for rail-mount terminal blocks (283 to 285 Series) ▸ for double- and triple-deck terminal blocks (279 to 281 Series) ▸ for TOPJOB® rail-mount terminal blocks (780 to 785 and 775 Series) ▸ for sensor/actuator terminal blocks (280 Series) ▸ for disconnect/test terminal blocks for transformer circuits (282 Series)		
Color	Item No.	Pack. Unit
gray	709-168	10





Accessories

Marking card; with 6 marking strips; for group marking or safety instructions

plain 709-183 1

Spare mounting/securing screw; for cover

209-196 200 (25)

Spare knurled nut; for cover

210-549 100 (25)

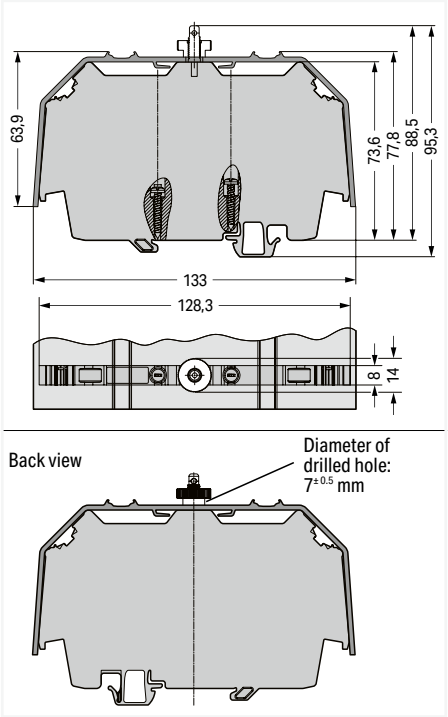
PU = packaging unit; SPU = subpackaging unit

Sealable, Transparent Cover ▸ for Rail-Mount Terminal Blocks
709 Series

Cover ▸ Type 3 ▸ for cover carrier (type 3) ▸ 1 m long		
Color	Item No.	Pack. Unit
transparent	709-156	10

Cover carrier ▸ Type 3 ▸ for rail-mount terminal blocks (2000 to 2016 Series, 2102 to 2116 Series, 2200 to 2216 Series) ▸ for transformer terminal blocks (2007 Series)		
Color	Item No.	Pack. Unit
gray	709-169	10

Dimensions in mm



Accessories

Marking card; with 6 marking strips; for group marking or safety instructions

plain	709-183	1

Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1

Spare mounting/securing screw; for cover

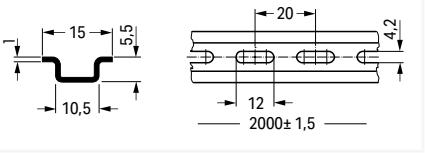
209-196	200 (25)

Spare knurled nut; for cover

210-549	100 (25)

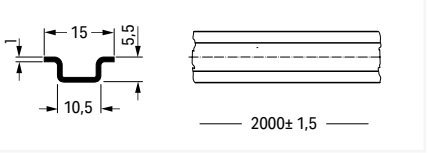
PU = packaging unit; SPU = subpackaging unit

DIN-Rail and End Stop ▸ for DIN-15 Rail



Steel DIN-rail ▸ I_N 57 A (based on 1 m length) ▸ 15 x 5.5 mm ▸ 1 mm thick ▸ 2 m long ▸ per EN 60715

	Item No.	Pack. Unit
slotted	210-111	10 (1)



Steel DIN-rail ▸ I_N 57 A (based on 1 m length) ▸ 15 x 5.5 mm ▸ 1 mm thick ▸ 2 m long ▸ per EN 60715

	Item No.	Pack. Unit
unslotted	210-295	1

Screwless end stop ▸ for DIN-15 rail ▸ 6 mm wide ▸ for WMB markers

Color	Item No.	Pack. Unit
gray	249-101	25

PU = packaging unit; SPU = subpackaging unit

Operating Tool

Operating tool with a partially insulated shaft ▸ Type 1, (2.5 x 0.4) mm blade

Item No.	Pack. Unit
210-719	50 (1)

Operating tool with a partially insulated shaft ▸ Type 2, (3.5 x 0.5) mm blade

210-720	50 (1)

Operating tool with a partially insulated shaft ▸ Type 3, (5.5 x 0.8) mm blade

210-721	25 (1)

Set of operating tools with a partially insulated shaft ▸ Type 1, (2.5 x 0.4) mm blade ▸ Type 2, (3.5 x 0.5) mm blade ▸ Type 3, (5.5 x 0.8) mm blade

210-722	1

Operating tool with a partially insulated shaft ▸ Type 1 ▸ (2.5 x 0.4) mm blade ▸ short

Item No.	Pack. Unit
210-647	50 (1)

Operating tool with a partially insulated shaft ▸ (2.5 x 0.4) mm blade ▸ short ▸ angled

210-648	50 (1)

Operating tool with a partially insulated shaft ▸ (3.5 x 0.5) mm blade ▸ short

210-657	50 (1)

Operating tool with a partially insulated shaft ▸ (3.5 x 0.5) mm blade ▸ short ▸ angled

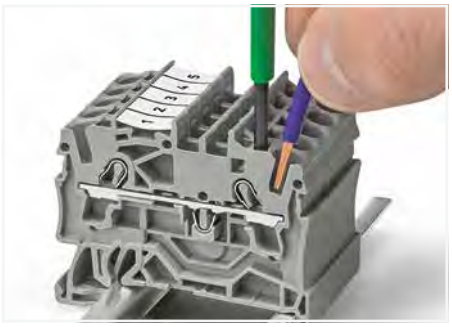
210-658	50 (1)

Operating tool ▸ Blades: 3.5 mm and 2.5 mm ▸ for installation terminal blocks (TOPJOB® S)

Item No.	Pack. Unit
2009-309	50 (1)

Operating tool ▸ Blades: 3.5 mm and 5.5 mm ▸ for installation terminal blocks (TOPJOB® S)

2009-310	50 (1)



The blade of this operating tool with a partially insulated shaft is ideal for operating front-entry terminal blocks.

This operating tool with blade dimensions per DIN 5264 is ideal for front-entry sensor/actuator terminal blocks (280 Series).

Open the clamping unit using an operating tool.

Set of operating tools in a box (Item No. 210-722)

PU = packaging unit; SPU = subpackaging unit

Operating Tool

Operating tool ▸ insulated ▸ for 279 Series		
	Item No.	Pack. Unit
1-way	209-129	100 (1)
2-way	279-432	100 (1)
3-way	279-433	100 (1)
10-way	279-440	30 (1)

Operating tool ▸ insulated ▸ for 264 Series (1- and 2-way only), 280, 281 Series (up to 3-way only)		
1-way	209-130	100 (1)
2-way	280-432	100 (1)
3-way	280-433	100 (1)
4-way	280-434	40 (1)
5-way	280-435	40 (1)
6-way	280-436	30 (1)
7-way	280-437	30 (1)
8-way	280-438	30 (1)
9-way	280-439	30 (1)
10-way	280-440	30 (1)

Operating tool ▸ insulated; for 281 Series		
5-way	281-440	40 (1)

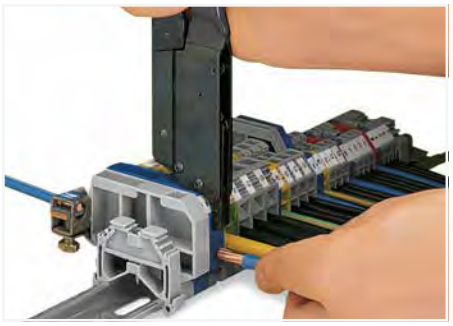
Operating pliers ▸ for side-entry rail-mount terminal blocks (281, 282, 283 and 284 Series)		
	Item No.	Pack. Unit
	210-141	1

Operating pliers ▸ for side-entry rail-mount terminal blocks (279 and 280 Series)		
	210-143	1

T-wrench with a partially insulated shaft		
	Item No.	Pack. Unit
	285-172	1

T-wrench with a partially insulated shaft and anti-rotation protection		
	285-173	1

Commoning front-entry disconnect terminal blocks via comb-style jumper bar using a 10-pole operating tool.

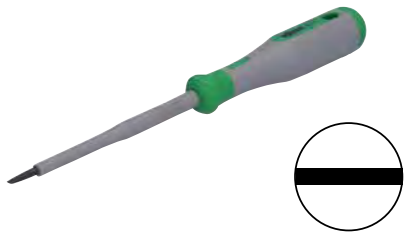


When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.
The operating pliers are placed into the upper operating slot of the rail-mount terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage. This will allow both hands to be used for wiring the terminal blocks.

T-wrench with a partially insulated shaft and anti-rotation protection (Item No. 285-173)

PU = packaging unit; SPU = subpackaging unit

Screwdriver ▸ VDE tested ▸ 1000 V ▸ insulated



Slot screwdriver ▸ (2,5 x 0,4) mm ▸ 75 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2111	1

Slot screwdriver ▸ (3,0 x 0,5) mm ▸ 100 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2112	1

Slot screwdriver ▸ (3,5 x 0,6) mm ▸ 100 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2113	1

Slot screwdriver ▸ (4,0 x 0,8) mm ▸ 100 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2114	1

Slot screwdriver ▸ (5,5 x 1,0) mm ▸ 125 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2115	1

Slot screwdriver ▸ (6,5 x 1,2) mm ▸ 150 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2116	1

Slot screwdriver ▸ (8,0 x 1,2) mm ▸ 175 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2117	1

Crosshead screwdriver ▸ PH0 ▸ 60 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2120	1

Crosshead screwdriver ▸ PH1 ▸ 80 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2121	1

Crosshead screwdriver ▸ PH2 ▸ 100 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2122	1

Crosshead screwdriver ▸ PH3 ▸ 150 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2123	1

Crosshead screwdriver ▸ PZ0 ▸ 60 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2130	1

Crosshead screwdriver ▸ PZ1 ▸ 80 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2131	1

Crosshead screwdriver ▸ PZ2 ▸ 100 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2132	1

Crosshead screwdriver ▸ PZ3 ▸ 150 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2133	1

PU = packaging unit; SPU = subpackaging unit

Torx® screwdriver ▸ T8 ▸ 180 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2163	1

Torx® screwdriver ▸ T10 ▸ 180 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2164	1

Torx® screwdriver ▸ T15 ▸ 190 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2165	1

Torx® screwdriver ▸ T20 ▸ 190 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2166	1

Torx® screwdriver ▸ T25 ▸ 190 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2167	1

Torx® screwdriver ▸ T30 ▸ 215 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2169	1

Combination screwdriver ▸ Cross and slot ▸ +/- PH1/S ▸ 190 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2141	1

Combination screwdriver ▸ Cross and slot ▸ +/- PH2/S ▸ 215 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2142	1

Combination screwdriver ▸ Cross and slot ▸ +/- PZ1/S ▸ 190 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2151	1

Combination screwdriver ▸ Cross and slot ▸ +/- PZ2/S ▸ 215 mm long		
Color	Item No.	Pack. Unit
green/gray	206-2152	1

Screwdriver set ▸ PH1; PH2; PZ1; 2,5 x 0,4; 3,5 x 0,6; 5,5 x 0,8		
Color	Item No.	Pack. Unit
green/gray	206-2101	1

Torx® screwdriver set ▸ T8; T10; T15; T20; T25; T30		
Color	Item No.	Pack. Unit
green/gray	206-2102	1

PU = packaging unit; SPU = subpackaging unit

Cable Knife

Cable knife ▸ for Ø 8 … 28 mm / 0.31 … 1.10 inch ▸ with a unique, changeable cable bracket system ▸ including cable bracket

	Item No.	Pack. Unit
	206-1403	1

Cable knife set ▸ for Ø 4 … 70 mm / 0.16 … 2.75 inch ▸ including all cable brackets in a Sortimo® Box

	Item No.	Pack. Unit
	206-1400	1

Never use this tool on or near live electrical circuits!

To replace the cable bracket, use the new bracket as an operating tool and pull it upwards.

Item-Specific Accessories

Cable bracket; for Ø 4 … 16 mm / 0.16 … 0.63 inch

206-1411 1

Cable bracket; for Ø 8 … 28 mm / 0.31 … 1.10 inch

206-1412 1

Cable bracket; for Ø 27 … 35 mm / 1.06 … 1.38 inch

206-1413 1

Cable bracket; for Ø 35 … 50 mm / 1.38 … 1.97 inch

206-1414 1

Cable bracket; for Ø 50 … 70 mm / 1.97 … 2.75 inch

206-1415 1

The cutting depth of the hook blade can be adjusted with the slider.

The cutting depth of the inner knife can be adjusted with the screw.

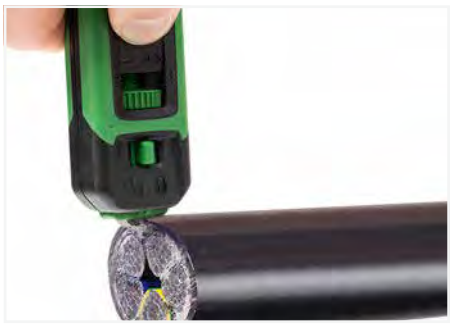
Accessories

Spare inside blade

206-1418 1

Spare hook blade

206-1419 1



Strip large cross sections with the hook blade.

Release the fuse before using the hook blade.

PU = packaging unit; SPU = subpackaging unit

Cable Stripper

In-socket cable stripper ▸
for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1441	1

Product features:
- Extra long design and improved force transmission simplifies stripping in deep device connection sockets
- Special four-blade design for an even more precise round cut
- No cutting depth adjustment required
- TiN-coated blades, TÜV/GS tested
- Ø 8 … 13 mm / 5/16 … 1/2 inch
- Strips all standard round cables, including NYM 3 x 1.5 mm²/16 AWG … 5 x 2.5 mm²/14 AWG

Built-in handy knife

Universal cable stripper ▸
for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1442	1

Sheath stripping: longitudinal cut

Product features:
- Secure grip achieved with soft padding for non-slip grips
- Technically improved functionality
- New locking mechanism prevents the unwanted opening of the tool
- Absolutely straightforward, quick and easy longitudinal cuts – with innovative internal cable duct
- Redesigned blade layout and intake to stop cable waste from jamming the tool
- Durable and ergonomically designed pocket clip
- Ø 8 … 13 mm / 5/16 … 1/2 inch

Stripping a conductor insulation.

Data cable stripper ▸
for Ø 4.5 … 10 mm / 3/16 … 3/8 inch

Item No.	Pack. Unit
206-1451	1

Product features:
- Strip outer insulation and foil sheathing with one tool
- Ideal for stripping PVC-insulated data cables with thin insulation (e.g., Cat. 5, Cat. 6, Cat. 7, twisted pair cable)
- TiN-coated blades
- Ø 4.5 … 10 mm / 3/16 … 3/8 inch

PU = packaging unit; SPU = subpackaging unit

Cable Stripper

Never use this tool on or near live electrical circuits!

The stripping pliers for sensor cables have a blade geometry specially designed for sensor cables with a smaller cross section and a working range from Ø 3.2 mm / 0.13 inch (for stranded cables and round cables with Ø 3.2 mm … 4.4 mm / 0.13 … 0.17 inch).

The stripping pliers for control cables are designed for stronger cables from Ø 4.4 mm / 0.17 inch (for stranded cables and round cables with Ø 4.4 mm … 7 mm / 0.17 … 0.27 inch).

These stripping pliers quickly and safely strip cables for connecting, e.g., sensor/actuator distribution boxes, bus couplers and pluggable connectors.

Suitable for:
- Halogen-free PUR sensor/actuator cables
- Highly flexible TPE-U cables
- Control cables
- PUR cables
- PUR/PVC cables
- PVC cables
- Multi-core cables
- Shielded and unshielded cables

Stripping pliers ▸ for sensor cables ▸ for Ø 3.2 … 4.4 mm / 0.13 … 0.17 inch		
	Item No.	Pack. Unit
	206-1481	1

Item-Specific Accessories		
Replacement blade set; for Ø 3.2 … 4.4 mm / 0.13 … 0.17 inch	206-1491	1

Stripping pliers ▸ for control cables ▸ for Ø 4.4 … 7 mm / 0.17 … 0.27 inch		
	Item No.	Pack. Unit
	206-1482	1

Item-Specific Accessories		
Replacement blade set; for Ø 4.4 … 7 mm / 0.17 … 0.27 inch	206-1492	1

PU = packaging unit; SPU = subpackaging unit

PU = packaging unit; SPU = subpackaging unit

Wire Stripper

Wire stripper "Quickstrip Vario" ▸ 0.03 … 16 mm² / 34 … 6 AWG ▸ with wire cutter		
	Item No.	Pack. Unit
	206-1125	1

Accessories		
Blade set; Standard; 0.03 … 16 mm² / 34 … 6 AWG		
	206-1126	1
Blade set; V-blade; 0.14 … 4 mm² / 24 … 12 AWG		
	206-1127	1
Blade set; Oval blade; 10 … 16 mm² / 8 … 6 AWG		
	206-1128	1
Spare stripping stop		
	206-1129	1
Spare cut protector		
	206-1131	1
Spare clamping jaws		
	206-1132	1

Cutting a conductor.

Partially stripping a conductor.

Wire Stripper:
- Automatically adjust to conductor size
- Stripping blades cause no damage to conductor strands
- Gripping pressure of jaws adjusts automatically to conductor insulation diameter
- Clamping jaws and stripping blades automatically open once the stripping process is completed – no splaying of the conductor strands
- Exact strip length may be set by sliding black setting stop
- Stripping blades can be replaced
- Self-sharpening, fully protected cutter (replaceable)
- Entire body made of glass-fiber-reinforced polyamide
- Cutting capacity of the wire cutter of fine-stranded conductors up to 16 mm² (6 AWG)

10

PU = packaging unit; SPU = subpackaging unit

Wire Stripper

Wire stripper ▶ for PVC insulation ▶ 0,2 … 6 mm²; with wire cutter; 2-component grip

	Item No.	Pack. Unit
	206-1141	1

Adjustable length stop: 6 … 15 mm. Insert stranded wire or conductor. The pliers automatically adjust to the conductor cross-section. Squeeze pliers – open – done!

Three wire cutters up to 2.5 mm²: Insert conductor to be cut and done!

Automatic Wire Stripper
Automatically adjusts to the conductor cross-section; no damage to the conductor possible. Suitable for all conductor types with cross sections of 0,2 mm² up to 6,0 mm² (stripping tool). With integrated wire cutter for conductors with max. cross section of 2.5 mm² (cutting tool).
Warning: Never use this tool on or near live electrical circuits!

PU = packaging unit; SPU = subpackaging unit

Crimping Tool

Application notes:
- The built-in crimping pressure control of "Variocrimp 4" automatically adjusts the crimping force to the conductor cross section. Select the wire gauge on "Variocrimp 16" before crimping.
- Only one crimping station is needed to handle the specified conductor range.
- Uniform, compact crimping on all four sides for high conductor retention.
- No need to center the ferrules into the terminal blocks.
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.

Crimping tool "Variocrimp 4" ▸ for insulated and uninsulated ferrules ▸ Crimping range: 0.25 … 4 mm² (24 … 12 AWG)

Item No.	Pack. Unit
206-1204	1

Item-Specific Accessories

Spring clamp; large

206-1205 1

Spring clamp; small

206-1206 1

Crimping tool "Variocrimp 16" ▸ for insulated and uninsulated ferrules ▸ Crimping range: 6 mm² (10 AWG), 10 mm² (8 AWG) and 16 mm² (6 AWG)

Item No.	Pack. Unit
206-1216	1

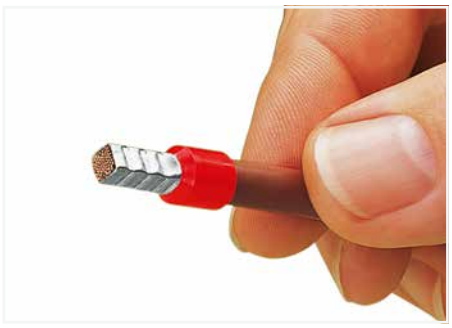
Item-Specific Accessories

Spring clamp; small

206-1206 1

Insert the ferruled conductor into the crimping station.

Squeeze handles until ratchet mechanism is released.



A perfect gas-tight crimp – both electrically and mechanically reliable

Only for "Variocrimp 16":
Adjust conductor cross section with crimping tool in open position.

What is a "gas-tight" connection?
In a gas-tight connection, the conductor and the ferrule are compressed, eliminating all spaces. Under normal atmospheric conditions, neither a liquid nor gaseous medium can penetrate the crimped connection.
Oxidation between crimped single conductors is prevented, virtually eliminating the possibility of any increase in the crimped connection's resistance. In some exceptional cases, minute, isolated spaces may be present. However, these instances can be considered as closed off due to the twisted conductor.
Inadequate crimping can allow the conductor to be pulled out of the connection. Hollow spaces also remain, permitting oxidation formation and an increase in contact resistance.
Elevated resistance is detrimental for both signal transmission (signal flow is damped) and power transmission, resulting in power loss and contact heating (risk of fire).
Crimping tools with built-in ratchets are recommended (e.g., WAGO Crimping Tools). These tools open automatically after the crimping operation is complete. Space-saving crimping from all four sides is ideal for spring clamp termination.
Ferruled conductor cross sections specified for WAGO products are based on this crimping method.

10

PU = packaging unit; SPU = subpackaging unit

Crimping Tool

Application notes:
- Improved crimping for higher conductor retention
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.

Crimping tool 25 ▸ for insulated and uninsulated ferrules ▸ crimping range: 10 mm² (8 AWG), 16 mm² (6 AWG) and 25 mm² (4 AWG)

	Item No.	Pack. Unit
	206-1225	1

Crimping tool 50 ▸ for insulated and uninsulated ferrules ▸ crimping range: 35 mm² (2 AWG) and 50 mm² (1/0 AWG)

	Item No.	Pack. Unit
	206-1250	1

Insert the ferruled conductor into the crimping station.

Squeeze handles until ratchet mechanism is released.

What is a "gas-tight" connection?
In a gas-tight connection, the conductor and the ferrule are compressed, eliminating all spaces. Under normal atmospheric conditions, neither a liquid nor gaseous medium can penetrate the crimped connection.
Oxidation between crimped single conductors is prevented, virtually eliminating the possibility of any increase in the crimped connection's resistance. In some exceptional cases, minute, isolated spaces may be present. However, these instances can be considered as closed off due to the twisted conductor.
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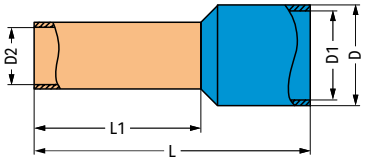
Ferruled conductor cross sections specified for WAGO products are based on this crimping method.

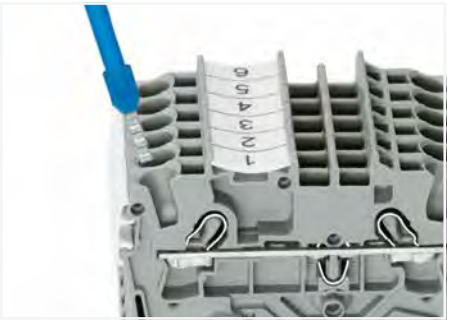
PU = packaging unit; SPU = subpackaging unit

Insulated ferrule ▸ for Rail-Mount Terminal Block TOPJOB® S



Ferrule ▸ insulated ▸ electro-tin-plated ▸ electrolytic copper ▸ gastight crimped ▸ per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.5 mm² / 20 AWG	white	12 mm / 0.47 inch	16	10	3.1	2.6	1	216-241	1000
0.75 mm² / 18 AWG	gray	12 mm / 0.47 inch	16	10	3.3	2.8	1.2	216-242	1000
0.75 mm² / 18 AWG	gray	14 mm / 0.55 inch	18	12	3.3	2.8	1.2	216-262	1000
1 mm² / 18 AWG	red	12 mm / 0.47 inch	16	10	3.5	3	1.4	216-243	1000
1 mm² / 18 AWG	red	14 mm / 0.55 inch	18	12	3.5	3	1.4	216-263	1000
1.5 mm² / 16 AWG	black	12 mm / 0.47 inch	16	10	4	3.5	1.7	216-244	1000
1.5 mm² / 16 AWG	black	14 mm / 0.55 inch	18	12	4	3.5	1.7	216-264	1000
1.5 mm² / 16 AWG	black	20 mm / 0.79 inch	24	18	4	3.5	1.7	216-284	500
2.5 mm² / 14 AWG	blue	12 mm / 0.47 inch	17	10	4.7	4.2	2.2	216-246	1000
2.5 mm² / 14 AWG	blue	14 mm / 0.55 inch	19	12	4.7	4.2	2.2	216-266	1000
2.5 mm² / 14 AWG	blue	20 mm / 0.79 inch	25	18	4.7	4.2	2.2	216-286	500
4 mm² / 12 AWG	gray	14 mm / 0.55 inch	20	12	5.4	4.8	2.8	216-267	500
4 mm² / 12 AWG	gray	20 mm / 0.79 inch	26	18	5.4	4.8	2.8	216-287	100
6 mm² / 10 AWG	yellow	14 mm / 0.55 inch	20	12	6.9	6.3	3.5	216-208	100
6 mm² / 10 AWG	yellow	20 mm / 0.79 inch	26	18	6.9	6.3	3.5	216-288	100
10 mm² / 8 AWG	red	20 mm / 0.79 inch	28	18	8.4	7.6	4.5	216-289	100
16 mm² / 6 AWG	blue	23 mm / 0.91 inch	28	18	9.6	8.8	5.8	216-210	100



Fine-stranded conductors with ferrules from at least two sizes below the rated cross section up to the rated cross section can also be simply pushed in – without tools.

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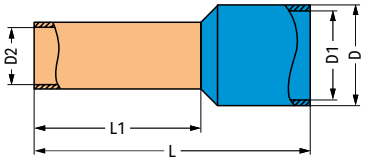
PU = packaging unit; SPU = subpackaging unit

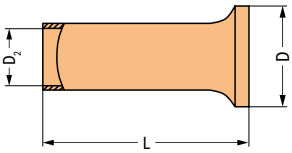
PU = packaging unit; SPU = subpackaging unit

Insulated and Uninsulated Ferrules



Ferrule ▸ insulated ▸ electro-tin-plated ▸ electrolytic copper ▸ gastight crimped ▸ per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	yellow	7 mm / 0.28 inch	10	6	2.3	1.8	0.85	216-321	1000
0.25 mm² / 24 AWG	yellow	9 mm / 0.35 inch	12	8	2.3	1.8	0.85	216-301	1000
0.34 mm² / 22 AWG	light turquoise	7 mm / 0.28 inch	10	6	2.5	2	0.85	216-322	1000
0.34 mm² / 22 AWG	light turquoise	9 mm / 0.35 inch	12	8	2.5	2	0.85	216-302	1000
0.5 mm² / 20 AWG	white	7 mm / 0.28 inch	12	6	3.1	2.6	1	216-221	1000
0.5 mm² / 20 AWG	white	9 mm / 0.35 inch	14	8	3.1	2.6	1	216-201	1000
0.75 mm² / 18 AWG	gray	8 mm / 0.31 inch	12	6	3.3	2.8	1.2	216-222	1000
0.75 mm² / 18 AWG	gray	10 mm / 0.39 inch	14	8	3.3	2.8	1.2	216-202	1000
1 mm² / 18 AWG	red	8 mm / 0.31 inch	12	6	3.5	3	1.4	216-223	1000
1 mm² / 18 AWG	red	10 mm / 0.39 inch	14	8	3.5	3	1.4	216-203	1000
1.5 mm² / 16 AWG	black	8 mm / 0.31 inch	12	6	4	3.5	1.7	216-224	1000
1.5 mm² / 16 AWG	black	10 mm / 0.39 inch	14	8	4	3.5	1.7	216-204	1000
2.08 mm² / 14 AWG	yellow	10 mm / 0.39 inch	15	8	4.8	4.2	2.05	216-205	1000
2.5 mm² / 14 AWG	blue	10 mm / 0.39 inch	15	8	4.7	4.2	2.2	216-206	1000
4 mm² / 12 AWG	gray	12 mm / 0.47 inch	18	10	5.4	4.8	2.8	216-207	500
6 mm² / 10 AWG	yellow	14 mm / 0.55 inch	20	12	6.9	6.3	3.5	216-208	100
10 mm² / 8 AWG	red	16 mm / 0.63 inch	22	12	8.4	7.6	4.6	216-209	100
16 mm² / 6 AWG	blue	23 mm / 0.91 inch	28	18	9.6	8.8	5.8	216-210	100

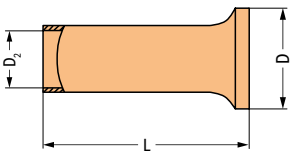


Ferrule ▸ uninsulated ▸ electro-tin-plated ▸ electrolytic copper ▸ gastight crimped ▸ per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	5 mm / 0.2 inch	5	1.7	0.75	216-151	1000
0.25 mm² / 24 AWG	7 mm / 0.28 inch	7	1.7	0.75	216-131	1000
0.34 mm² / 22 AWG	5 mm / 0.2 inch	5	1.8	0.85	216-152	1000
0.34 mm² / 22 AWG	7 mm / 0.28 inch	7	1.8	0.85	216-132	1000
0.5 mm² / 20 AWG	6 mm / 0.24 inch	6	2.1	1	216-121	1000
0.5 mm² / 20 AWG	8 mm / 0.31 inch	8	2.1	1	216-101	1000
0.75 mm² / 18 AWG	6 mm / 0.24 inch	6	2.3	1.2	216-122	1000
0.75 mm² / 18 AWG	8 mm / 0.31 inch	8	2.3	1.2	216-102	1000
1 mm² / 18 AWG	6 mm / 0.24 inch	6	2.5	1.4	216-123	1000
1 mm² / 18 AWG	8 mm / 0.31 inch	8	2.5	1.4	216-103	1000
1.5 mm² / 16 AWG	6 mm / 0.24 inch	6	2.8	1.7	216-124	1000
1.5 mm² / 16 AWG	8 mm / 0.31 inch	8	2.8	1.7	216-104	1000
2.5 mm² / 14 AWG	10 mm / 0.39 inch	10	3.4	2.2	216-106	1000
4 mm² / 12 AWG	10 mm / 0.39 inch	10	4	2.8	216-107	1000
6 mm² / 10 AWG	12 mm / 0.47 inch	12	4.7	3.5	216-108	500
10 mm² / 8 AWG	12 mm / 0.47 inch	12	5.8	4.5	216-109	500
16 mm² / 6 AWG	15 mm / 0.59 inch	15	7.5	5.8	216-110	500

PU = packaging unit; SPU = subpackaging unit

Uninsulated Ferrule



Ferrule ▸ uninsulated ▸ electro-tin-plated ▸ electrolytic copper ▸ gastight crimped ▸ per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
25 mm² / 4 AWG	25 mm / 0.98 inch	25	9.5	7.3	216-413	50
35 mm² / 2 AWG	25 mm / 0.98 inch	25	11	8.3	216-414	50
35 mm² / 2 AWG	30 mm / 1.18 inch	30	11	8.3	216-424	50
50 mm² / 1/0 AWG	30 mm / 1.18 inch	30	13	10.3	216-425	50
50 mm² / 1/0 AWG	35 mm / 1.38 inch	35	13	10.3	216-435	50

PU = packaging unit; SPU = subpackaging unit

Cable Cutter

Cable cutter ▶ for copper and aluminum cables up to 35 mm² (2 AWG)		
	Item No.	Pack. Unit
	206-118	10 (1)

Cutting a cable.

10

PU = packaging unit; SPU = subpackaging unit

Test and Measurement Devices
206 Series

Testboy ▸ with integrated flashlight, non-contact voltage tester		
	Item No.	Pack. Unit
	206-804	6 (1)

WAGO Test Probes ▸ 2 mm Ø ▸ 1000 V ▸ CAT IV ▸ 10 A		
	Item No.	Pack. Unit
	206-912	1

A device that will reliably detect AC voltage in cables, sockets, fuses, switches, outlets and other installations.
Testboy can detect the following:
- Live conductors
- Cable breaks
- Blown fuses (in cartridges or holders)
- Defective switches
- Defective lamps in strings of lights

PU = packaging unit; SPU = subpackaging unit

Banana Plug (Only for Safety Extra-Low Voltage)
215 Series

Technical Data	
0.08 … 2.5 mm²	28 … 14 AWG
max. 42 V	
Test current: 20 A	
Measuring range category: CAT I	
9 … 11 mm / 0.35 … 0.43 inch	

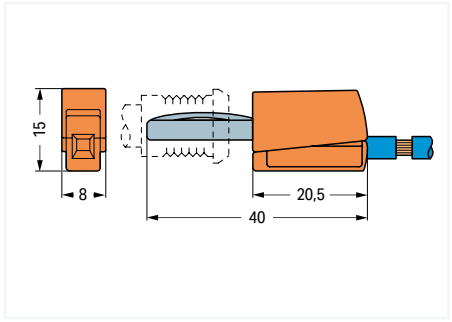
Conductor termination: Press button fully, insert stripped conductor into square entry and release.

Testing via banana plug.
Picture shows a test plug adapter (Item No. 209-170).

Banana plug ▸ for 4 mm socket diameter ▸ color mixed ▸ 10 x orange, white, black, blue, yellow

	Item No.	Pack. Unit
	215-111	50

Banana plug; single



Dimensions in mm

Banana plug; for 4 mm socket diameter			
	orange	215-211	50
Banana plug; for 4 mm socket diameter			
	red	215-212	50
Banana plug; for 4 mm socket diameter			
	black	215-311	50
Banana plug; for 4 mm socket diameter			
	green	215-411	50
Banana plug; for 4 mm socket diameter			
	yellow	215-511	50
Banana plug; for 4 mm socket diameter			
	white	215-611	50
Banana plug; for 4 mm socket diameter			
	blue	215-711	50
Banana plug; for 4 mm socket diameter			
	gray	215-811	50
Banana plug; for 4 mm socket diameter			
	green-yellow	215-911	50

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PU = packaging unit; SPU = subpackaging unit

Test Plug
210 Series

Test plug ▸ with 500 mm cable ▸ 2 mm Ø ▸ max. 42 V		
Color	Item No.	Pack. Unit
red	210-136	50 (1)

Testing with a 2 mm Ø test plug (max. 42 V).

PU = packaging unit; SPU = subpackaging unit

Technical Section

Technical Section

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Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

PUSH-IN CAGE CLAMP®

Push-in CAGE CLAMP® terminates the following copper conductors:
solid

stranded

fine-stranded, also with tinned single strands

fine-stranded, tip-bonded

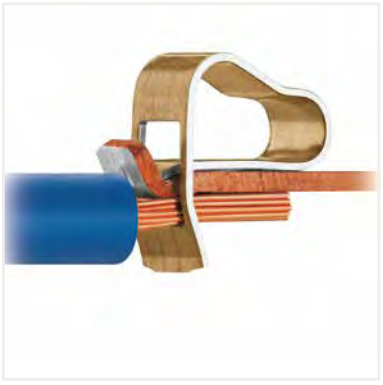
fine-stranded, with ferrule (gastight crimped)

fine-stranded, with pin terminal (gastight crimped)

The universal connection with an additional advantage: Push-in connection
Terminate solid and stranded (Class B 7 strands or less), as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

CAGE CLAMP®



CAGE CLAMP® terminates the following copper conductors:
solid

stranded

fine-stranded, also with tinned single strands

fine-stranded, tip-bonded

fine-stranded, with ferrule (gastight crimped)

fine-stranded, with pin terminal (gastight crimped)

The universal connection for solid, stranded and fine-stranded conductors

Termination:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

POWER CAGE CLAMP®

POWER CAGE CLAMP terminates the following copper conductors:
solid

stranded

fine-stranded, also with tinned single strands

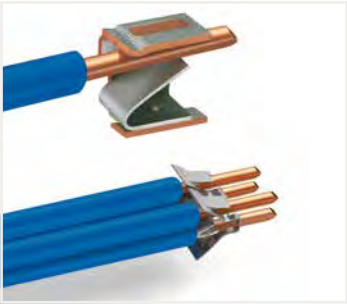
fine-stranded, with ferrule (gastight crimped)

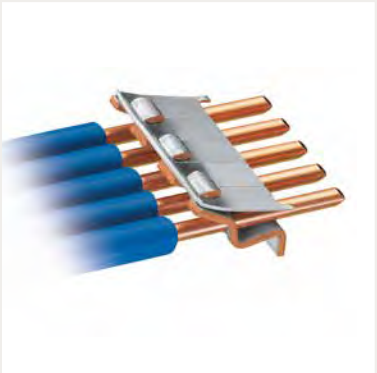
The universal connection for conductors larger than 35 mm² (2 AWG)

Termination:

- Open clamp by turning a T-wrench counter-clockwise.
- Press the integrated latch to open clamping unit for hands-free wiring.
- Insert the conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.

PUSH WIRE®





PUSH WIRE® terminates the following copper conductors:
solid

PUSH WIRE® connection for solid and stranded conductors (depending on the model used)

Termination:
Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.

Signal Conditioners

857 Series

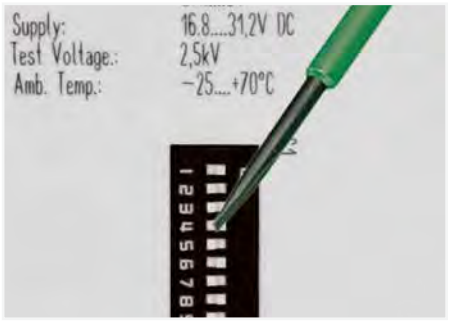
Housed in a 6 mm-wide package, the Signal Conditioners feature eight Push-in CAGE CLAMP® connections and a common profile. These features play a key role in forming the basis for a successful overall solution. Additional benefits include: "safe isolation," extended operating temperature range and calibrated, configurable signals. Combined with excellent technical specifications, these features lead to a line of advanced signal conditioning solutions that maximize panel space while reducing signal wiring and downtime.

Directly Connect:
Simple, push-in termination of solid and ferruled conductors – no operating tool needed.

PUSH-IN CAGE CLAMP®

Highest Safety:
All devices provide "safe isolation" with 2.5 kV test voltage according to DIN EN 61010-1.

Configuration Optiont



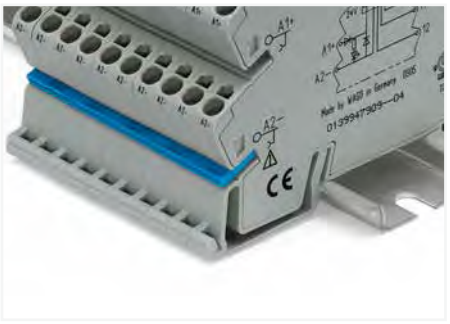
Configuration via DIP switch

Industry's most compact –
"True" 6.0 mm (0.23 inch) width maximizes panel space.

Configuration via PC software

For extreme applications –
Extended temperature range of −25 °C to +70 °C to support more applications.

Configuration via push/slide switch



Commoning, not discrete wiring –
Same outline allows use of a single in-line, push-in jumper.

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Signal Conditioners

2857 Series

The success of the 857 Series Signal Conditioners shaped the design of the new 2857 Series. Just like the 857 Series, usability and absolute reliability are at the core of the 2857 Series. However, the 2857 Series takes flexibility to new levels by providing several convenient configuration options. Every aspect has been engineered for maximum flexibility – exactly what you'd expect from WAGO.

Directly Connect:
Simple, push-in termination of solid and ferruled conductors –no operating tool needed.

PUSH-IN CAGE CLAMP®

Highest Safety:
All devices provide "safe isolation" with 4 kV test voltage according to DIN EN 61010-1.

Configuration Options

Configuration via DIP switch

Commoning, not discrete wiring –
Same outline allows use of a single in-line, push-in jumper.

Configuration via PC software

For extreme applications –
Extended temperature range of −40 °C to +70 °C to support more applications.

Lock-out seal option

Pluggable connection technology

Isolation Amplifiers
with a Power Supply

Pre-Configured Isolation Amplifiers

Pre-configured isolation amplifiers convert, amplify, filter and electrically isolate analog standard signals (e.g., 0 … 10 V into 0 … 20 mA).

Configurable Isolation Amplifiers

For signal conditioners, and particularly two-wire signal conditioners, the measured signal is often in the 4 … 20 mA range as a current value. For the analog input card of a PLC, however, input voltages in the ranges of 0 … 10 V or 0 … 5 V are required.
Configurable isolation amplifiers support various standard signals at the input and output; the devices also convert, amplify, filter and electrically isolate analog standard signals. DIP switches accessible from the side can be used to configure the input and output signals. Measurement range configuration via DIP switch is calibrated.

Universal Isolation Amplifiers

In addition to the configurable isolation amplifiers, the universal isolation amplifiers can also be configured via PC configuration software or smartphone app. The configuration software also offers additional options, such as special input and output signal combinations with intermediate values or inversion of the analog output. An error message can be signaled via digital switching output.

Bipolar Isolation Amplifiers

Bipolar measurement signals often require processing, e.g., when motor currents are measured in both directions of rotation. Bipolar signals are also processed for recording distances or for better resolution of measurement signals.

Repeater Power Supplies

Repeater power supplies energize transmitters.
Two-wire transmitters regulate their own current consumption proportional to the measured value; the 4 … 20 mA connection provides auxiliary power for the transmitter and the magnitude of the current is the same as the output measured value.
Three-wire transmitters usually have an active current output for the measured value and additional connections for the supply voltage (auxiliary power).

Signal Splitters

Signal splitters divide a standard signal into two signals. The measured signal can be supplied to different downstream devices without interference.
Example: A signal conditioner supplies 4 … 20 mA input current. 20 mA.
Output 1 is configured to 4 … 20 mA and transmits the measured value to a controller.
Output 2 is configured to 0 … 20 mA and regulates a controller.

Isolation Amplifiers
without a Power Supply

Passive Isolators

Passive isolators draw their power from the input signal (4 … 20 mA) and require no additional wiring or auxiliary power.

Loop-Powered Isolation Amplifiers

Loop-powered isolation amplifiers draw their power from the output signal (4 … 20 mA) and require no additional wiring or auxiliary power.

Relay Modules

Relay Modules

Conveniently Interface Electronics and Peripheral Devices

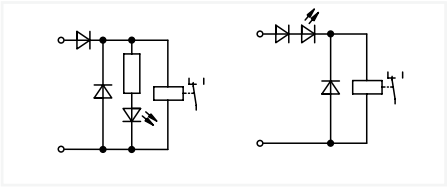
In modern automation systems, electromechanical relays safely connect process peripherals with electronic control, alarm and monitoring systems. For example, relays perform the following tasks:
Electrical isolation with high isolation levels between input and output circuits
Adjust different signal levels
Signal amplification and/or signal multiplication if varying potentials coexist
The comprehensive design of modern relays provides applications with the following benefits:
Immunity to electromagnetic interference and transient voltages
High, short-term overload capacity on both input and output sides
Minimal switching loss
A single module that switches both direct and alternating currents

WAGO offers a complete range of relay modules that perform these tasks for a wide range of applications. Depending on the task and application requirements, there is a choice of relay modules with differently rated voltages, contacts, contact materials, housings and designs. In addition to standard switching relays, other relay models are available including bistable, timer, latching and safety relays with force-guided contacts.

Definitions of Several Important Technical Terms

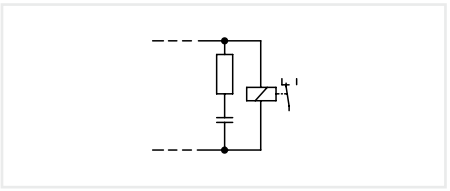
Coil-Side

The relays can be used within the stated temperature range with nominal voltage plus tolerance at 100% continuous rating. According to the type and application, the relays are triggered with a DC or AC signal. The DC versions (residual ripple ≤ 6%) are, unless otherwise stated, equipped with LED function indicators, a recovery diode and a reverse voltage protection diode. The functional details are shown in the wiring diagram.



Possible input circuits of relay modules

AC versions of select relays equipped with series connected rectifiers (refer to the wiring diagrams) can be triggered with AC and DC at the stated nominal voltage.
The free-wheel function is in this case actuated by the rectifier. The only input circuit on purely AC relays is the status display.
To guarantee safe operation, residual voltages (due to the cable capacitance of long connection lines or leakage currents of semi-conductor switches and their protective circuits) must be lower than the release voltage of the relays. For DC relays, the release voltage is specified with ≤ 5 % of the nominal voltage; for AC relays, it is 15 % of the nominal voltage (per EN 61810).
The relay may not reset if a high residual voltage exists. Depending on the reason for the residual voltage, changing the cable routing or a parallel connection of an RC element of R = 100 ··· 220 Ω and C = 220 ··· 470 nF could remedy this situation.



Optionally, modules specially developed for this application are available, e.g., sockets with a miniature switching relay and integrated base load module (857-358/006-000).

Relay Modules

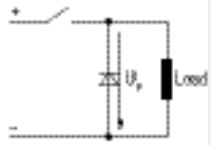
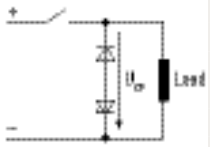
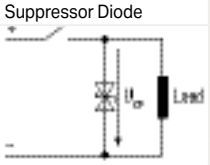
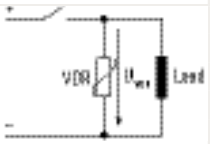
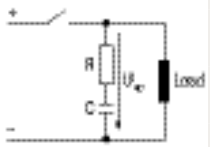
Contact Materials

For contact reliability, the contact resistance over the entire operating life of the relay should remain relatively low and constant. A variety of contact materials can be selected depending on the load type, switching current, switching voltage and the desired number of switching cycles. The accompanying table shows the materials, their properties and applications when used with WAGO relay modules.

Contact Material	Properties and Applications	Application Range
AgNi 0,15 + Au	Excellent corrosion resistance, low and constant contact resistances at extremely low switching power, for dry circuits	µV ... 30 V µA ... 0,2 A
AgNi 0,15	Good mechanical stability, low welding tendency and low contact resistance, universal use at moderate loads	≥ 12 V 5 mA ... 10 A
$AgSnO_2$	Low welding tendency, extremely high burn-off resistance at high switching power, suitable for circuits with high switch on/off loads, DC circuits	≥ 5 V / 100 mA ≥ 10 V / 10 mA ≥ 24 V / 1 mA

Contact Protective Circuit

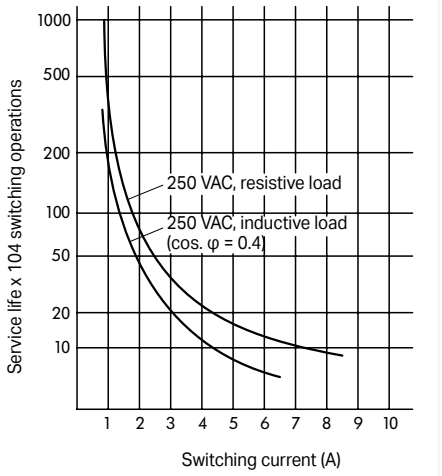
When switching off inductive loads, such as contactors and solenoid valves, transients occur with peak voltages up to several thousand volts. These transients often exceed the permissible EMC standard limits and must therefore be limited by external circuits. They also cause an electric arc at the switching contact, which can destroy the contact or can significantly diminish the relay's service life and reliability. The following protective circuits, which are outlined in the table, are connected directly to the source in parallel to the load and have proven to be successful.

Load Circuit	Additional Fall Delay	Defined Induction Voltage Limitation	Bipolar-Effective Attenuation		
Diode 	Large	Yes (U_D)	No	Advantages:	• Easy implementation • Cost-effective, reliable • Uncritical dimensioning • Small induction voltages
				Disadvantages	• Attenuation only via load resistor
Diode/Zener Diode Series Circuit 	Medium to small	Yes (U_{ZD})	No	Advantages:	• Uncritical dimensioning
				Disadvantages	• Attenuation only above U_{ZD}
Suppressor Diode 	Medium to small	Yes (U_{ZD})	Yes	Advantages:	• High energy absorption • Uncritical dimensioning • Suitable for AC voltage
				Disadvantages	• Attenuation only above U_{VDR}
Varistor 	Medium to small	Yes (U_{VDR})	Yes	Advantages:	• High energy absorption • Uncritical dimensioning • Suitable for AC voltage
				Disadvantages	• Attenuation only above U_{VDR}
R/C Combination 	Medium to small	No	Yes	Advantages:	• RF attenuation via power storage • Suitable for AC voltage • Level-independent attenuation
				Disadvantages	• Accurate dimensioning required • High inrush current

Relay Modules

Service Life

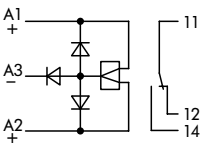
A distinction must be made between the mechanical life, which indicates the number of switching cycles without contact load, and the electrical service life at maximum load, which indicates the number of switching cycles with maximum switching power and resistive load. Reduced power increases the service life compared to the value of the maximum load. The following figure shows the typical curve between switching current and service life of a relay.



More details upon request

Description of Select Relays

Bistable Switching Relays



Bistable switching relays have three coil contacts. According to the wiring scheme, the relay is switched into "working condition" (contacts 11 ... 14 closed) by the common connection A3 and the connection A2 and into "rest position" (contacts 11 ... 14 opened) by the connection A1. After removing the control signal, the relay returns to its respective position and can only be switched over by a control signal circuit. The bistable switching relays are only available for direct voltage with positive or negative triggering.

Current Pulse Switching Relays

One current pulse is needed to change the relay from the rest position to the working position and vice versa. During the triggering process, one of two status indicators displays the actual contact position. The current pulse switching relay is available for direct and alternating voltage.

Safety Relays

Force-guided safety relays have become increasingly recommended and specified for self-regulated systems as they provide protection for personnel, machines and installations. Relays with force-guided contacts are an essential safety component for these circuits, particularly when defects occur. For these applications, WAGO offers specialty relay modules with force-guided contacts as based on EN 61810-3.

Optocouplers

Optocouplers – The Modern and Powerful Alternative

As a link between process peripherals and electronic control, alarm and monitoring systems, optocoupler modules boast the following advantages over electromechanical relays:

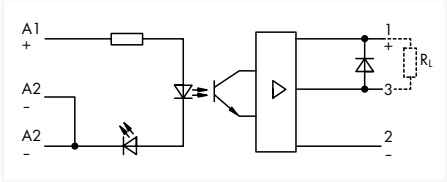
- Longer service life – no mechanical wear
- High switching frequency because of fast switching times
- Vibration resistance
- No contact bouncing
- "Noiseless" switching
- Low control power

WAGO provides a full range of optocouplers for all interfaces between control and load circuits in applications where the following advantages are needed:

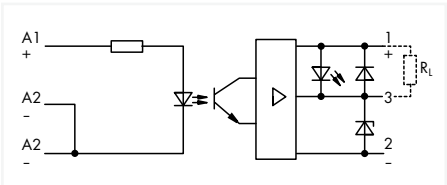
- Electrically isolate input and output circuits
- Adjust different signal levels
- Signal amplification

Input Circuit

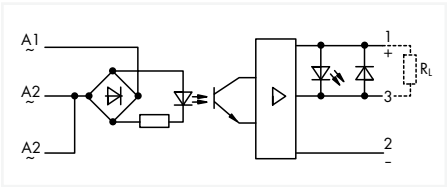
According to the type, triggering the optocoupler modules is performed via DC voltage (residual ripple RR <6%) or AC voltage (50 … 60 Hz).
In the DC type, a reverse voltage protection diode is always provided; in the AC type optocoupler element, a rectifier is included. The optocoupler modules are equipped with a LED function indication at either the input side or at the load side, as shown in the wiring diagram.



DC triggering with LED function indication in the triggering circuit



DC triggering with LED function indication in the load circuit



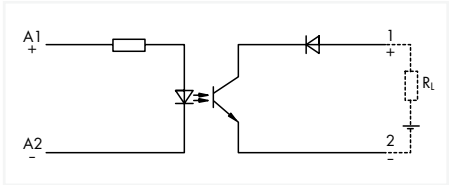
AC triggering with LED function indication in the load circuit

Due to the low threshold voltages, it must be ensured that interference and residual voltages (caused by the cable capacitance of long connection lines or leakage currents of semi-conductor switches and their protective circuits) do not cause any malfunctions.

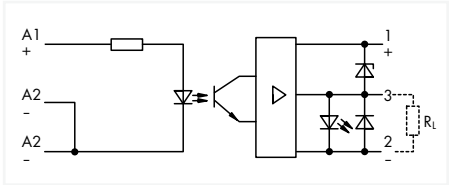
Output Circuit

Depending on the application, an optocoupler module for DC or AC voltage consumers can be selected on the load side. In the case of DC outputs, they can be:

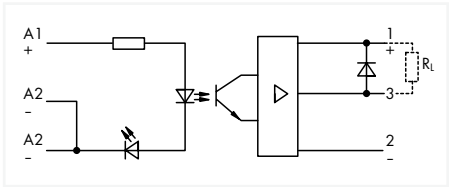
- 2-wire output
- 3-wire high-side switching output
- 3-wire low-side switching output



2-wire output

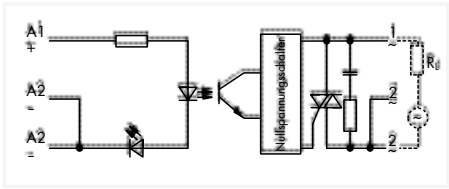


3-wire high-side switching output



3-wire low-side switching output

In addition to these different functional outputs, the output voltage range and the maximum switching current must be observed.
To ensure proper operation, the specified polarity must be observed.
In order to protect the output transistors, inductive loads must always be equipped with a protective circuit, e.g., a recovery diode. For other types of protective measures, the cut-off voltage peaks must be lower than the indicated cut-off voltage of the output transistors. For the AC outputs a Triac is used as the switching element.



In order to avoid high inrush currents, the AC output is equipped with a zero-voltage switch which turns on the load at the zero-voltage point. In the current zero-crossing, the Triac will cut off the load. Besides observing the maximum switching voltage and maximum switching current for inductive loads, ensure the provision of a protection circuit to cut-off peaks to a value below the reverse voltage.

Relay Modules and Optocouplers
Housings and Designs

Modern equipment design requires multiple components that can meet diverse challenges:
User- and maintenance-friendly, limited budgets, safety and availability, simplicity in design and usage.

WAGO offers relay and optocoupler modules in various designs to overcome any of the restraints posed by space requirements.

Sockets with a Miniature Switching Relay or a Solid-State Relay, 788 Series

Socket with a pluggable miniature switching relay

WAGO 788 Series Relay Sockets are an excellent platform for industrial and process automation switching relay applications. Featuring plug-and-play, miniature switching relays (1 or 2 changeover contacts), the 788 Series relays are ultra-compact, fitting where other relays won't.
A compact design (W x H x D: 15 x 53 x 86 mm) is just one of the 788 Series' unique and highly beneficial features.
A robust, easy-to-use lever lifts/ejects relays, simplifying replacement – even if relay modules are side-by-side.
For flexibility and the reduction of part numbers, the 788 Series can be ordered as: a fully equipped relay module, a relay and LED for switching status indication, or as individual components.

Relay and Optocoupler Modules, 857 Series

Relay module with plugged miniature switching relay

WAGO's 857 Series Relay and Optocoupler Modules are supplied in 6 mm-wide housing and share a common profile. The modules feature a single, flexible in-line jumper system, eliminating discrete wiring. The pluggable relays can simply be replaced from the top.

Relay and optocoupler modules

Relay Modules and Optocouplers
Housings and Designs

Pluggable Function Modules for Carrier Terminal Blocks, 286 Series

Pluggable function modules for carrier terminal blocks

Pluggable modules for carrier terminal blocks maximize flexibility while simplifying maintenance.
The carrier terminal block is mounted on the DIN-rail and wired just like a standard terminal block.
For ease of maintenance, the modules are replaced in one step without altering the wiring. This intelligent design also saves space and reduces wiring costs. A comprehensive range of function modules is available to complement these relay and optocoupler modules. The modules seamlessly integrate any required function into control cabinets via pluggable modules.

Rail-Mount Terminal Blocks with Relay and Optocoupler, 859 Series

Relay module

With a wide range of relays and optocouplers, the 859 Series will suit any industrial interface application.
The compact, 6 mm-wide housing is ideal for space-restricted control panels. Simple commoning at the control and load side streamlines looping through of common input and output potentials.

Relay Modules in a DIN-Rail Mount Enclosure, 789 Series

Relay module in a DIN-rail-mount enclosure

WAGO 789 Series Switching Relays serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets.
Just 17.5 mm wide, the compact DIN-rail-mount enclosure is ideal for distribution boards and meter cabinets.
The relay modules with manual operation allow simple emergency operation to be implemented.

Sockets with an Industrial Relay, 858 Series

Socket with an industrial relay

A robust design and vibration-proof CAGE CLAMP® Spring Pressure Connection Technology ensure continuous and uninterrupted operation for any system. The right choice for applications requiring up to four changeover contacts. Dual conductor entries enable customized potential distribution.

Interface Modules

Safe and Maintenance-Free Connections

Interface modules connect electronics to electrical systems at the control level and perform:
- signal transmission between control and field level (system, machine), as well as
- signal distribution between control and field level

and vice versa. Here, the control signals from pre-assembled, plug-in connections are applied to terminal block connections.
WAGO offers a wide range of interface modules for commonly used connector types. Using these interface modules, the following benefits are provided for system wiring:
- Simple and time-saving planning and calculation
- Quick wiring, commissioning and troubleshooting thanks to clearly laid-out wiring and highly legible pole markings – decrease wiring errors
- Safe and maintenance-free connection of signal lines using CAGE CLAMP® terminal strips
- Space-saving, high-density wiring

The interface modules can be delivered as standard, in a universal DIN-rail mounting carrier for the following connectors:

D-Subminiature Connector per DIN 41652

Interface modules for male and female connectors are available with 9, 15, 25, 37 or 50 contacts. Compared with the standard solder connection, the mating connector with IDC connection offers additional advantages.

Interface module with D-subminiature connector per DIN 41652

Pluggable Connector per DIN 41651

Interface modules with 10-, 14-, 16-, 20-, 26-, 34-, 40-, 50- and 64-pole pluggable connectors are available for ribbon cable connectors.

Interface module with pluggable connector per DIN 41651

RJ-45 Interface Modules

The RJ-45 interface modules are switchgear cabinet components for passive and structured network cabling. A range of DIN-rail-mount RJ-45 interface modules in different variants are available for the various applications:
- with shield clamping saddles
- as crossover
- with additional power contacts

RJ-45 Interface Modules

Overvoltage Protection

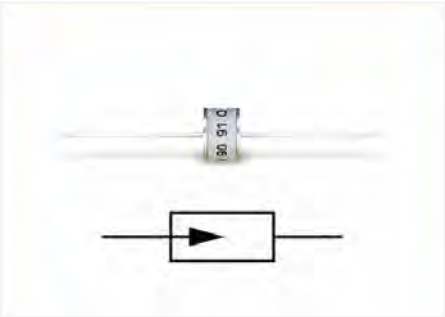
Overvoltage Protection to Increase Operational Safety and Availability

On-the-line overvoltages cause most operating failures for measuring, control, data and power lines. Failure of electronic and semiconductor components due to surges can cause operating interruptions. The overvoltage (also called transients) can be generated by switching electrical equipment on or off or by lighting discharges. Depending on the application, protective measures for systems and devices can be broken down into:

- Coarse protection
- Medium protection
- Fine protection

The boundaries between these levels of protection may not be sharply defined. To implement the appropriate protection measures, various components are used for discharging transient overvoltage, depending on the protection type. The following components have proven performance in these applications:

Gas-Filled Surge Arrester



The gas filled surge arrester is comprised of two electrodes in a ceramic or glass tube filled with a pressurized inert gas.
Once the ignition voltage is reached, resistance drops due to ionization and current begins to flow. The resistance of the device drops from high to low as it conducts. The voltage across the device after the arc is struck is typically 10 ... 30 V. Therefore, the current will continue to flow until the voltage drops below this level. As this is not a guaranteed occurrence in typical power situations, a fuse must precede the device to ensure disconnection from the supply. This is always the case if the nominal voltage of the protected network is greater than 12 VDC and the nominal voltage of the power supply and the protected circuit is greater than 100 mA.

Varistor

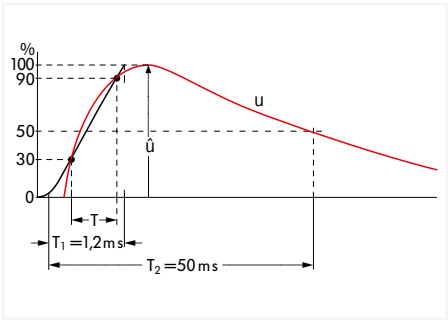
A varistor is a voltage-dependent resistor, in which the resistance becomes low after their "nominal voltage" is exceeded and for the voltage range above it, and can thus cut off any overvoltages through high discharge currents. Varistors can age with continued surge conduction, resulting in lower impedance even in the lower voltage range. However, this normally only occurs when a varistor frequently discharges transients. In this case, they must be replaced and specific time intervals.

Suppressor Diode

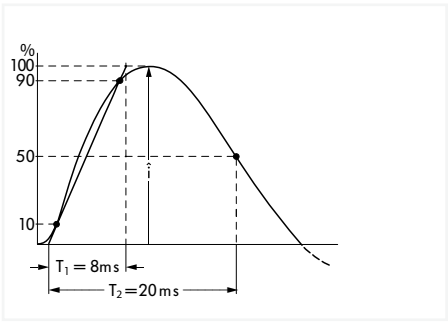
Suppressor diodes have electrical characteristics similar to Zener diodes, but are rated for surge currents.
Once the rated breakdown voltage is exceeded (in the non-conductive direction), the diode becomes a conductor. The suppressor diode differs from a Zener in its higher current carrying capability and faster response time (in the picosecond range).

Test Impulse

Surge arresters are subject to standardized test pulses in order to classify capabilities; the effectiveness of protection measures with reference to dissipation capacity and voltage arresting. The form and level of the test pulses are defined by IEC 60060-1 and EN 62475:2010. Preference is given to voltage pulses of 1.2/50 and current pulses of 8/20.



Voltage pulses 1.2/50 per IEC 60060-1



Current pulses 8/20 per EN 62475:2010

Application Recommendations

The advantages of gas-filled surge arresters lie in their high current carrying capacity, making them ideal for coarse protection. One disadvantage, particularly in the medium protection range, is the relatively long response time, as well as the power follow current.
Varistors have a considerably shorter response time; however they also have lower leakage currents. This makes them more suitable for medium protection as they offer limited applications for coarse protection.
If the connection lines of electronic equipment are already "fine" protected, general coarse and medium protection measures are sufficient. If this is not the case, suppressor diodes with a very short response time may be employed as fine protection. WAGO offers a complete range of modular terminal blocks with integrated surge arresters for coarse, medium and fine protection.
Depending on the application, one can choose the appropriate type from the previously mentioned surge arresters. These are electrically connected in the modular terminal blocks between the connection point and mounting rail. Snapping the terminal block onto the grounded (earthed) mounting rail automatically ensures the required overvoltage protection.

Double-deck terminal block, with varistor direct connection to DIN-35 rail

Frequently, only one surge arrester is fitted for cost reasons. However, due to the fact that one surge arrester alone cannot optimally ensure several protection functions, combinations are recommended. Care must be taken to ensure that the single-stage protection devices are decoupled sufficiently by inductors or resistors.

Overvoltage Protection

Interference suppression modules are a special category here.
In addition to overvoltage protection, a high frequency interference filter can be added to the circuitry. This filter cannot only protect the equipment from high frequency energy transmitted by connecting wires, but also prevents a transmission of disturbances to the supply lines. The main component of a filter is an LC network, which produces a mismatch between the filter impedance and the impedance of the disturbance path. This reflects any disturbance back to its source.

Definition of Several Important Technical Terms

Nominal Operating Voltage (U_{BN})

The nominal operating voltage corresponds to the voltage which may be permanently connected to the appropriate connection terminals of the overvoltage protection module. Alternating voltages are quoted as effective values.

Max. Operating Voltage (U_{Bmax})

The maximum operating voltage corresponds to the voltage which may be permanently connected to the appropriate connection terminals without the operating properties changing or activating the individual module's protection elements.

Nominal Current (I_N)

The nominal current corresponds to the current which may permanently flow through the connection terminals of the overvoltage protection device.

Nominal Discharge Current (I_{SN})

The nominal discharge current is the maximum value of a current having the 8/20 µs waveform, which can flow through the surge arrester five times within a time period of 30 seconds (VDE) without destroying it.

Max. Surge Current (I_{Smax})

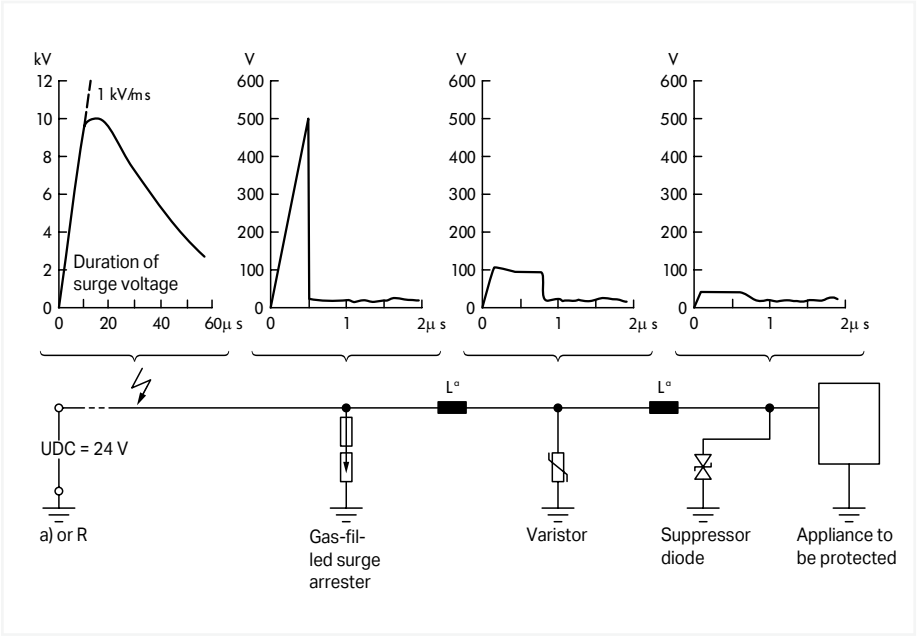
The maximum surge current ISmax defines the maximum value of a current having the 8/20 µs waveform, which can flow through the surge arrester once without destroying it.

Protection Level (U_p)

The protection level is the value of the residual voltage occurring on the "protected" side of the surge arrester when applying the rated discharge current.

Response Time (t_{resp})

The response time is primarily based on the physical properties of the surge arresters and is dependent upon the wave front duration of the surge voltage. WAGO's data refers to a voltage rise 1kV/µs.



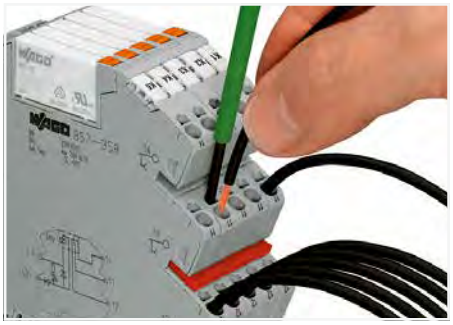
Function diagram of a multi-stage surge voltage protection module

Installation Notes

Relay and Optocoupler Modules, 859 Series

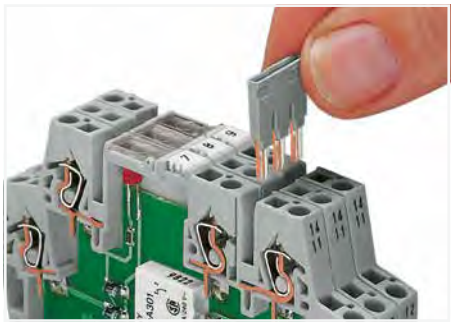
Inserting a conductor via screwdriver.

Relay and Optocoupler Modules, 857 Series

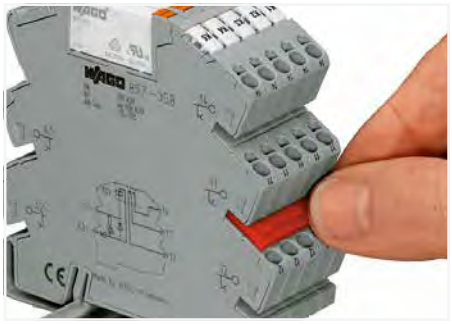


Inserting a conductor via screwdriver.

Removing a relay via ejector.



Easy commoning using adjacent jumpers.



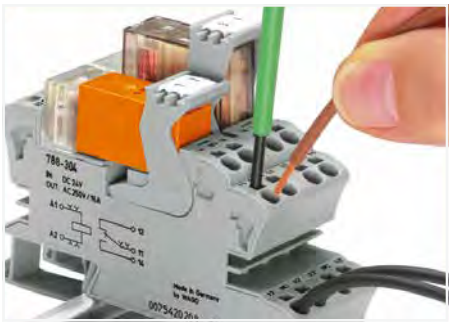
Easy commoning using adjacent jumpers.

Marking via Mini-WSB Quick Marking System.

Marking via WMB Multi Marking System.

Installation Notes

Sockets with a Miniature Switching Relay, 788 Series



Inserting a conductor via screwdriver.

Easy commoning using adjacent jumpers.

Marking using WMB Multi markers and group marker carriers.

Sockets with an Industrial Relay, 858 Series

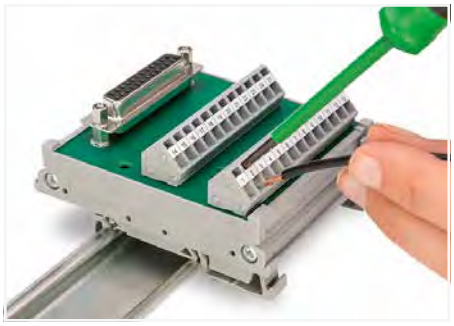
Easy commoning using adjacent jumpers.

Removing a conductor via screwdriver.

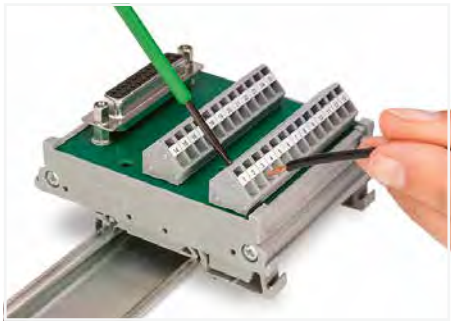
Marking using WMB Multi markers and group marker carriers.

Installation Notes

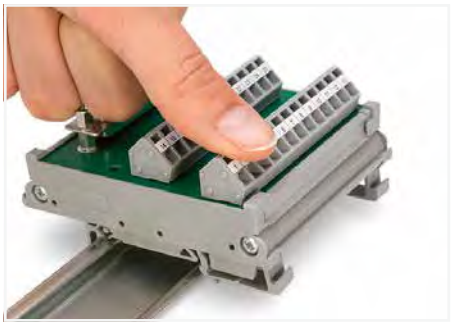
DIN-Rail-Mounted Interface Modules, 289 Series



"Front-entry" conductor termination



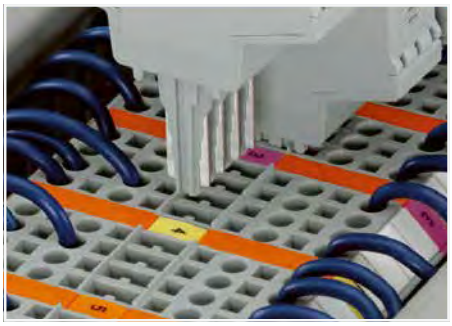
"Side-entry" conductor termination



Snapping a module onto DIN-rail.

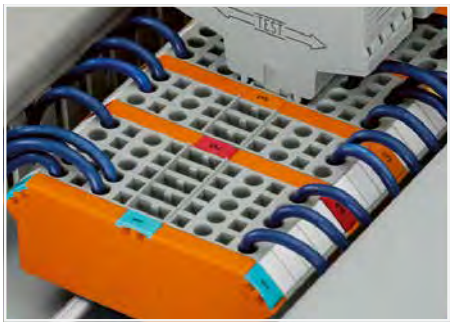
Removing a module from the DIN-rail.

Pluggable Function Modules for Carrier Terminal Blocks, 286 Series



Coding ensures correct polarity.

Pluggable electronic modules on 2- or 4-conductor carrier terminal blocks



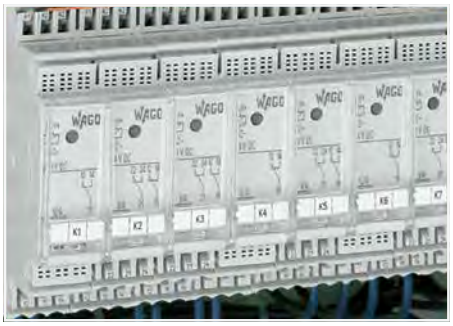
Marking via WMB Multi Marking System.

Function testing via touch-proof test slots.

Relay Modules in a DIN-Rail Mount Enclosure, 789 Series

Inserting a conductor via screwdriver.

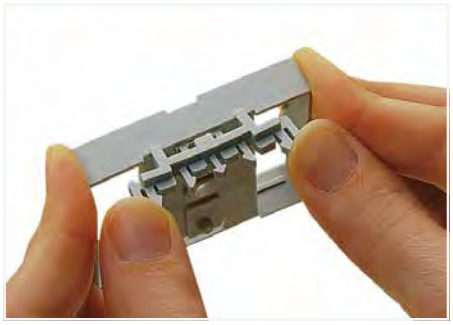
Easy commoning via adjacent jumpers.



Marking via Mini-WSB Quick Marking System.

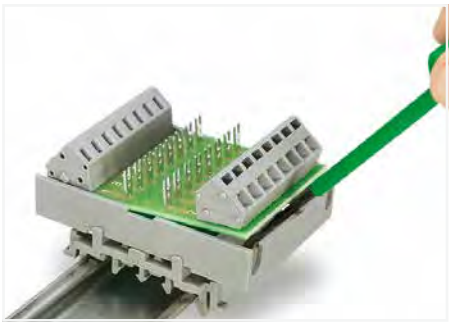
Installation Notes

Interface Modules, 289 Series



Mounting carrier, gray, snap-fit mounting of universal mounting feet

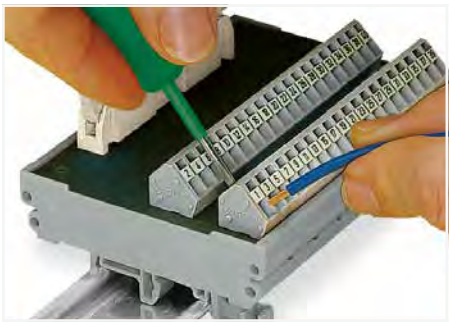
Fitting an individual module to the mounting carrier.



Removing an individual module from the mounting carrier.

Interface Modules, 289 Series

"Front-entry" conductor termination

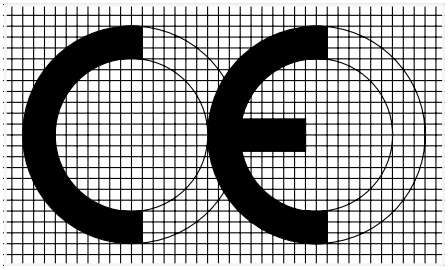


"Side-entry" conductor termination

CE Marking and EC Directives

CE Conformity Marking:

The CE conformity marking consists of the characters "CE" with the following script:



Communauté Européenne
(European Community)

The CE conformity marking must be applied to all electrical equipment; should on-unit marking not be possible, mark the smallest packing unit. With this marking, manufacturers attest conformity of their products to relevant directives.

In addition to the CE marking, manufacturers provide an EC "Declaration of Conformity" for their products. This declaration of conformity must be retained and submitted to a national surveillance authority upon request.

EC directives are legally binding specifications for the European Union. Their goal is aligning legal and administrative specifications in the various EU member countries, in order to prevent trading hindrances arising from different national specifications.

In order to launch a product on the market, it must comply with the relevant directives. Several directives may apply for one single product, for example, EMC and low voltage directives.

Low Voltage Directive (LVD)
The safety of electrical equipment is guaranteed by the Low Voltage Directive. The LVD covers all electrical equipment operating with a voltage between 50 and 1000 VAC and between 75 and 1500 VDC. Products falling within the scope of the LVD that are designed in such a way that they can be used in other electrical devices and whose safety, for the most part, is dependent on how these components were built into the end product and what features the end product has are defined as basic components in accordance with the LVD. The LVD doesn't apply to basic components.

EMC Directive
The EMC Directive implies that a product must meet the limits of the radiated electromagnetic disturbance and also requires that a product must be immune to electromagnetic interference. Electromagnetic passive components or components with no direct function, like resistors, diodes, capacitors, switching relays or cables (in the form of passive printed circuit boards) are not considered as apparatus within the meaning of the EMC Directive.

Machinery Directive
The Machinery Directive does not apply to WAGO products.

Explosive Atmospheres Directive (ATEX)
Directive for devices and protective systems intended for use in hazardous locations.

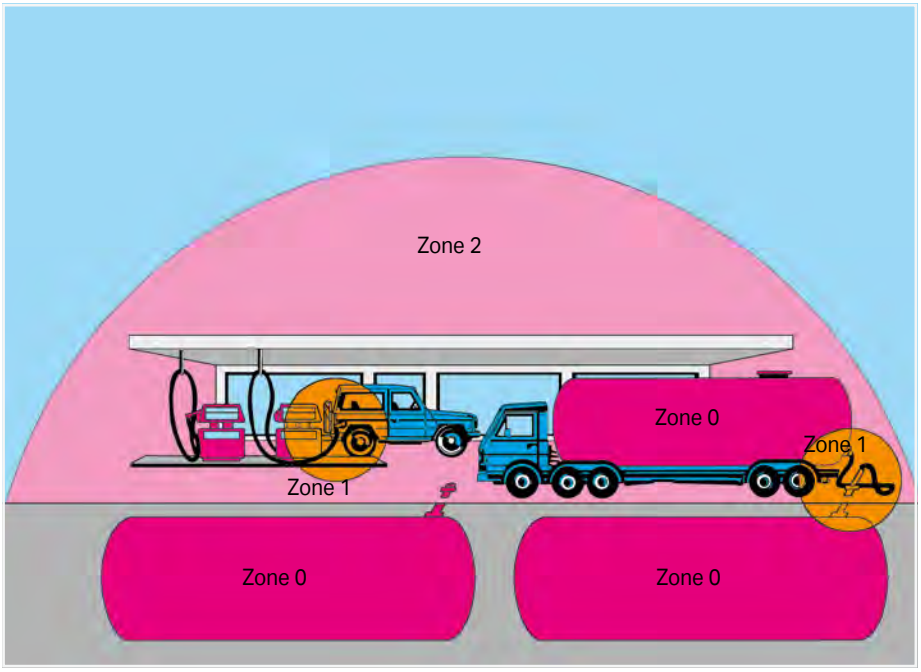
Radio Equipment Directive
A device or relevant component thereof, capable of communication by emitting and/or receiving radio waves utilizing the spectrum allocated to terrestrial/space radio communication, falls within the scope of the Radio Equipment Directive. As such, these devices and components are tested and labeled accordingly. This label implicitly includes both Low Voltage and EMC Directives, since the Radio Equipment Directive also encompasses the safety targets for both of these directives.

General Technical Informationfor Electrical Equipment Used in Hazardous Areas

Hazardous Areas

Hazardous environments are areas in which the atmosphere may become explosive. An explosive atmosphere is a mixture of flammable substances in the form of gases, vapors or mixtures with air under atmospheric conditions in critically mixed ratios such that excessive high temperature, arcs or sparks may cause an explosion.

DIN EN 1127-1 and all other related standards that are commonly known divide up hazardous areas according to the likelihood of the occurrence of an explosive atmosphere into the following zones:



❶ Hazardous areas due to explosive gases, vapors and mists

Zone 0

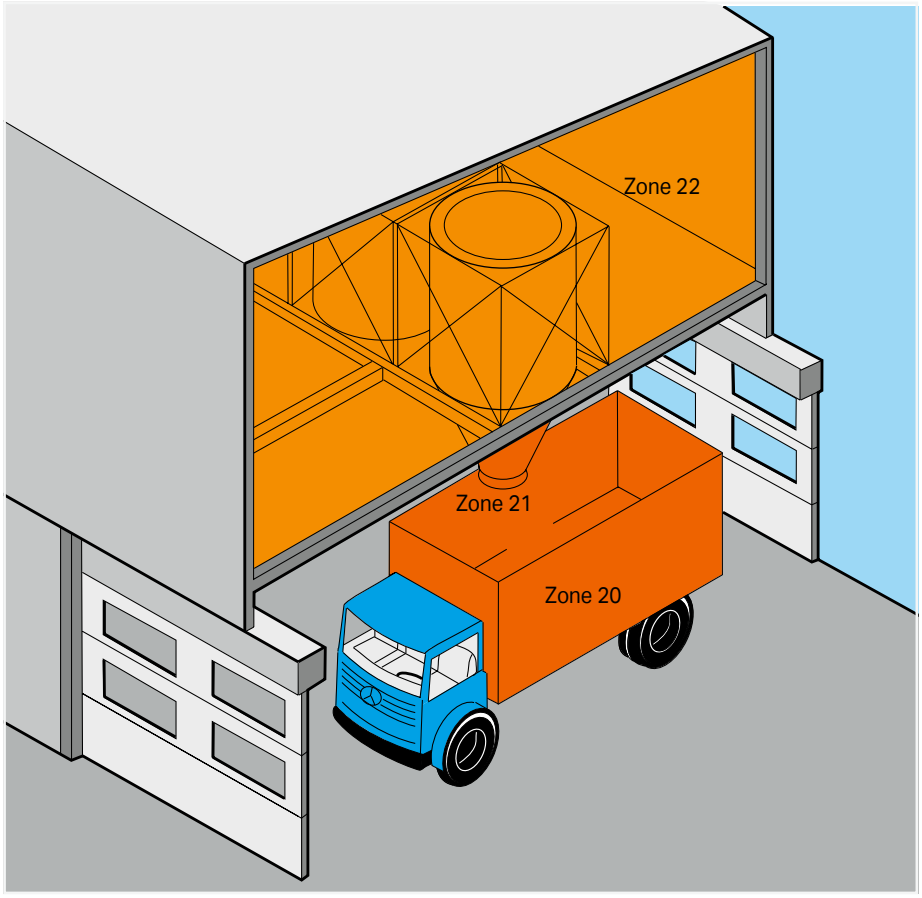
Areas in which an explosive atmosphere is present continuously, for long periods or frequently.

Zone 1

Areas in which an explosive atmosphere is likely to occur occasionally during normal operation.

Zone 2

Areas in which an explosive atmosphere is likely to occur rarely or only for a short period during normal operation.



❷ Hazardous areas due to explosive dust/air mixtures

Zone 20

Areas in which an explosive atmosphere due to dust/air mixtures is present continuously, for long periods or frequently and in which dust deposits of known or excessive thickness may form. Dust deposits alone do not constitute a Zone 20.

Zone 21

Areas in which the occurrence of an explosive atmosphere due to dust/air mixtures is to be expected occasionally and in which deposits or layers of combustible dust can generally be present.

Zone 22

Areas in which an explosive atmosphere due to dust/air mixtures is not likely to occur during normal operation and, if it occurs, will only exist for a short period, or in which accumulations or layers of combustible dust are present.

Electromagnetic Compatibility and Mechanical Strength (Industrial and Residential Areas)

Immunity to Interference for Industrial Areas per EN 61000-6-2

Test Specification		Test Values	Evaluation Criteria *)
EN 61000-4-2	ESD	4 kV/8 kV (contact/air)	B
EN 61000-4-3	Electromagnetic fields	10 V/m: 80 MHz … 1 GHz	A
		3V/m: 1.4 … 2.0 GHz	A
		1V/m: 2.0 … 2.7 GHz	A
EN 61000-4-4	Burst	1 kV/2 kV (data/supply)	B
EN 61000-4-5	Surge	Data: - / 1 kV (line : line – line : ground)	B
		DC supply: 0.5 kV / 0.5 kV (line : line – line : ground)	B
		AC supply: 1 kV / 2 kV (line : line – line : ground)	B
EN 61000-4-6	RF disturbances	10 V/m, 80 % AM (0.15 … 80 MHz)	A
EN 61000-4-8	Magnetic field	30 A/m, 50/60Hz	A

*) Criteria A: The device must work in accordance with the regulations during and after the test.
Criteria B: The device must work in accordance with the regulations after the test.

Emission of Interference for Residential Areas per EN 61000-6-3

Test Specification		Limit Values Quasi Peak	Frequency Range	Distance
EN 55016-2-1	AC supply, conducted	66 … 56 dB(µV)	150 … 500 kHz	
		56 dB(µV)	500 kHz … 5 MHz	
		60 dB(µV)	5 … 30 MHz	
EN 55016-2-1	DC supply/data line	79 dB(µV)	150 … 500 kHz	
	conducted	73 dB(µV)	500 kHz … 30 MHz	
EN 55016-2-3	radiated	30 dB(µV/m)	30 … 230 MHz	10 m
		37 dB(µV/m)	230 MHz … 1 GHz	10 m
EN 55022	Telecommunications/	84 … 74 dB(µV)	150 … 500 kHz	
	Mains connection, conducted	74 dB(µV)	500 kHz … 30 MHz	

Emission of Interference for Industrial Areas per EN 61000-6-4

Test Specification		Limit Values Quasi Peak	Frequency Range	Distance
EN 55016-2-1	AC supply, conducted	79 dB(µV)	150 … 500 kHz	
		73 dB(µV)	500 kHz … 30 MHz	
EN 55016-2-3	radiated	40 dB(µV/m)	30 … 230 MHz	10 m
		47 dB(µV/m)	230 MHz … 1 GHz	10 m
EN 55022	Telecommunications/	97 … 87 dB(µV)	150 … 500 kHz	
	Mains connection, conducted	87 dB(µV)	500 kHz … 30 MHz	

Mechanical Strength per EN 61131-2

Test Specification		Frequency Range	Limit Values
IEC 60068-2-6	Vibration	5 Hz ≤ f < 9 Hz	1.75 mm amplitude (permanently)
			3.5 mm amplitude (short term)
		9 Hz ≤ f < 150 Hz	0.5 g (permanent)
			1 g (short term)
		Note on vibration test: a) Frequency change: max. 1 octave/minute b) Vibration direction: 3 axes	
IEC 60068-2-27	Shock		15 g
		Note on shock test: a) Type of shock: half sine b) Shock duration: 11 ms c) Shock direction: 3x in positive and 3x in negative direction for each of the three mutually perpendicular axes of the test specimen	

Electromagnetic Compatibility and Mechanical Strength (marine applications)

Immunity to Interference in the Shipping Industry per Germanischer Lloyd

Test Specification		Test Values	Evaluation Criteria *)
IEC 61000-4-2	ESD	6 kV / 8 kV (contact – air)	B
IEC 61000-4-3	Electromagnetic fields	10 V/m 80 MHz ... 2 GHz	A
IEC 61000-4-4	Burst	1 kV / 2 kV (data – supply)	A
IEC 61000-4-5	Surge	0.5 kV / 1 kV (line : line – line : ground)	A
IEC 61000-4-6	RF disturbances	10 V, 80 % AM (0.15 ... 80 MHz)	A
Type Test	AF disturbances (harmonics)	3 V, 2 W	A
Type Test	High voltage	755 VDC	-
		1500 VAC	-

*) Criteria A: The device must work in accordance with the regulations during and after the test.
Criteria B: The device must work in accordance with the regulations after the test.

Immunity to Interference in the Shipping Industry per Germanischer Lloyd

Test Specification		Limit Values Quasi Peak	Frequency Range	Distance
Type Test	EMC 1, conducted (allows for ship bridge control applications)	96 ... 50 dB(µV)	10 ... 150 kHz	
		60 ... 50 dB(µV)	150 ... 350 kHz	
		50 dB(µV)	350 kHz ... 30 MHz	
Type Test	EMC 1, radiated (allows for ship bridge control applications)	80 ... 52 dB(µV/m)	150 ... 300 kHz	3 m
		52 ... 34 dB(µV/m)	300 kHz ... 30 MHz	3 m
		54 dB(µV/m)	30 MHz ... 2 GHz	3 m
	except for:	24 dB(µV/m)	156 ... 165 MHz	3 m
Type Test	EMC 2, conducted (allows for machine room applications)	120 ... 69 dB(µV)	10 ... 150 kHz	
		79 dB(µV)	150 ... 500 kHz	
		73 dB(µV)	500 kHz ... 30 MHz	
Type Test	EMC 2, radiated (allows for machine room applications)	80 ... 50 dB(µV/m)	150 kHz ... 30 MHz	3 m
		60 ... 54 dB(µV/m)	30 ... 100 MHz	3 m
		54 dB(µV/m)	100 MHz ... 2 GHz	3 m
	except for:	24 dB(µV/m)	156 ... 165 MHz	3 m

Mechanical Strength per Germanischer Lloyd

Test Specification		Frequency Range	Limit Values
IEC 60068-2-6	Vibration (category A, C)	2 Hz ≤ f < 13.2 Hz	±1.0 mm amplitude (permanent)
		13.2 Hz ≤ f < 100 Hz	0.7 g (permanent)
		Note on vibration test: a) Frequency change: max. 1 octave/minute b) Vibration direction: 3 axes	
IEC 60068-2-6	Vibration (category A-D)	2 Hz ≤ f < 25 Hz	±1.6 mm amplitude (permanent)
		25 Hz ≤ f < 100 Hz	4 g (permanent)
		Note on vibration test: a) Frequency change: max. 1 octave/minute b) Vibration direction: 3 axes	

Specifications and Test Results

The following standards apply to the design and application of the electrical components contained in this catalog:

DIN VDE 0100
Construction of high current installations with nominal voltages up to 1000 V

EN 50110-1
VDE 0105-1
Operation of electrical installations

IEC 61140
EN 61140
VDE 0140-1
Protection against electric shock
– Common aspects for installation and equipment

IEC 60664-1
EN 60664-1
VDE 0110-1
Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests

IEC 60204-1
EN 60204-1
VDE 0113-1
Safety of machinery – Electrical equipment of machines – Part 1:
General requirements

EN 50178
VDE 0160
Electronic equipment for use in power installations

IEC 62305-1
EN 62305-1
VDE 0185-305-1
Protection against lightning – Part 1: General principles

IEC 60060-1
HD 588.1 S1
VDE 0432-1
High voltage test techniques – Part 1:
General specifications and
test requirements

IEC 60085
EN 60085
VDE 0301-1
Electrical insulation –
Thermal evaluation and designation

IEC 60529
EN 60529
VDE 0470-1
Degrees of protection provided by enclosures (IP code)

IEC 60603-1
EN 60603-1
Connectors for frequencies below 3 MHz for use with printed boards – Part 1: Generic specification: General requirements and guide for the preparation of detail specifications, with assessed quality

IEC 61984
EN 61984
VDE 0627
Connectors – Safety requirements and tests

IEC 60999-1
EN 60999-1
VDE 0609-1
Connecting devices – Electrical copper conductors; Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors 0.2 mm2 up to 35 mm2

IEC 60617-2
EN 60617-2
Graphical symbols for diagrams –
Part 2: Symbol elements, qualifying symbols and other symbols having general application

IEC 61558-1
EN 61558-1
VDE 0570-1
Safety of power transformers, power supplies, reactors and similar products – Part 1: General requirements and tests

IEC 60669-2-1
EN 60669-2-1
VDE 0632-2-1
Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches

IEC 60947-7-1
EN 60947-7-1
VDE 0611-1
Low-voltage switchgear and controlgear – Part 7-1: Ancillary equipment – Terminal blocks for copper conductors

IEC 60998-2-2
EN 60998-2-2
VDE 0613-2-2
Connecting devices for low-voltage circuits for household and similar purposes – Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units

IEC 60947-1
EN 60947-1
VDE 0660-100
Low-voltage switchgear and controlgear – Part 1: General rules

IEC 60947-5-6
EN 60947-5-6
VDE 0660-212
Low-voltage switchgear and controlgear – Part 5-6: Control circuit devices and switching elements, DC interface for proximity sensors and switching amplifiers (NAMUR)

IEC 60439-1
EN 60439-1
VDE 0660-500
Low-voltage switchgear and controlgear assemblies – Part 1: Type-tested and partially type-tested assemblies

IEC 60555-1
EN 60555 Part 1
VDE 0838-1
Disturbances in supply systems caused by household appliances and similar electrical equipment; Part 1: definitions

IEC 60715
EN 60715
Dimensions of low-voltage switchgear and controlgear – Standardized mounting on rails for mechanical support of electrical devices in switchgear and controlgear installations

IEC 60950-1
EN 60950-1
VDE 0805-1
Information technology equipment – Safety
Part 1: General requirements

IEC 60127-6
EN 60127-6
VDE 0820-6
Miniature fuses – Part 6: Fuse-holders for miniature fuse-links

EN 50155
VDE 0115-200
Railway applications – Electronic equipment used on rolling stock

EN 50090-2-2
VDE 0829-2-2
Home and Building Electronic Systems (HBES) – Part 2-2: System overview – General technical requirements; German version

IEC 60099-1
EN 60099-1
VDE 0675-1
Surge arresters – Part 1: Non-linear resistor type gapped surge arresters for a.c. systems

IEC 61643-1
EN 61643-11
VDE 0675-6-11
Low-voltage surge protective devices – Part 11: Surge protective devices connected to low-voltage power systems – Requirements and tests

IEC 61643-21
EN 61643-21
VDE 0845-3-1
Low voltage surge protective devices – Part 21: Surge protective devices connected to telecommunications and signalling networks; Performance requirements and testing methods

IEC 61508-1
EN 61508-1
VDE 0803-1
Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements

IEC 62061
EN 62061
VDE 0113-50
Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems

Interfaces – Fieldbuses

DIN 66259-1
Electrical characteristics for unbalanced double-current interchange circuits

EN 50325-1
Industrial communications subsystem based ISO 11898 (CAN) for controller-device interfaces – Part 1: General requirements

IEC 61784-1
EN 61784-1
Industrial communication networks – Profiles – Part 1: Fieldbus profiles

IEC 61158-2
EN 61158-2
Industrial communication networks – Fieldbus specifications – Part 2: Physical layer specification and service definition

IEC 61158-6-x
EN 61158-6-x
DIN EN 61158-6-x
Industrial communication networks – Fieldbus specifications – Part 6-x

Explosion Protection

IEC 60079-0
EN 60079-0
VDE 0170-1
Electrical apparatus for explosive gas atmospheres – Part 0: General requirements

IEC 60079-7
EN 60079-7
VDE 0170-6
Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

IEC 60079-11
EN 60079-11
VDE 0170-7
Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"

IEC 60079-14
EN 60079-14
VDE 0165-1
Explosive atmospheres – Part 14: Electrical installations design, selection and erection

IEC 60079-15
EN 60079-15
VDE 0170-16
Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus

IEC 61241-0
EN 61241-0
VDE 0170-15-0
Electrical apparatus for use in the presence of combustible dust – Part 0: General requirements

IEC 61241-1
EN 61241-1
VDE 0170-15-1
Electrical apparatus for use in the presence of combustible dust – Part 1: Protection by enclosures "tD"

IEC 61241-11
EN 61241-11
VDE 0170-15-11
Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety "iD"

Specifications and Test Results
(continued)

Environmental Testing

IEC 60068-2-6
EN 60068-2-6
VDE 0468-2-6
Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)

IEC 60068-2-27
EN 60068-2-27
Basic environmental testing procedures – Part 2: Tests
– Test Ea and guidance: Shock

IEC 60068-2-42
EN 60068-2-42
Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections

IEC 60068-2-43
EN 60068-2-43
Environmental testing – Part 2-43: Tests – Test Kd: Hydrogen sulphide test for contacts and connections

EMC Requirements

IEC 61000-6-1
EN 61000-6-1
VDE 0839-6-1
Electromagnetic compatibility (EMC) – Part 6-1: Generic standards
– Immunity for residential, commercial and light-industrial environments

IEC 61000-6-2
EN 61000-6-2
VDE 0839-6-2
Electromagnetic compatibility (EMC) – Part 6-2: Generic standards
– Immunity for industrial environments

IEC 61000-6-3
EN 61000-6-3
VDE 0839-6-3
Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments

IEC 61000-6-4
EN 61000-6-4
VDE 0839-6-4
Electromagnetic compatibility (EMC) – Part 6-4: Generic standards
– Emission standard for industrial environments

IEC 61000-3-2
EN 61000-3-2
VDE 0838-2
Electromagnetic compatibility (EMC) – Part 3-2: Limits
– Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

IEC/CISPR 11
EN 55011
VDE 0875-11
Industrial scientific and medical (ISM) radio-frequency equipment
– Electromagnetic disturbance characteristics
– Limits and methods of measurement

IEC/CISPR 22
EN 55022
VDE 0878-22
Information technology equipment
– Radio disturbance characteristics
– Limits and methods of measurement

IEC/CISPR 24
EN 55024
VDE 0878-24
Information technology equipment
– Immunity characteristics
– Limits and methods of measurement

IEC 61326-3-1
EN 61326-3-1
VDE 0843-20-3-1
Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – General industrial applications

PLC

IEC 61131-1
EN 61131-1
Programmable controllers – Part 1: General information

IEC 61131-2
EN 61131-2
VDE 0411-500
Programmable controllers – Part 2: Equipment requirements and tests

IEC 61131-3
EN 61131-3
Programmable controllers – Part 3: Programming languages

Relay

IEC 61810-1
EN 61810-1
VDE 0435-201
Electromechanical elementary relays – Part 1: General requirements

IEC 61810-2
EN 61810-2
VDE 0435-120
Electromechanical elementary relays – Part 2: Reliability

IEC 61810-5
EN 50205
VDE 0435-2022
Electromechanical non-specified time all-or-nothing relays – Part 5: Insulation coordination

IEC 60255-5
EN 60255-5
VDE 0435-130
Electrical relays – Part 5: Insulation coordination for measuring relays and protection equipment – Requirements and tests

UL Directives

UL 1059; ANSI 1059
Terminal blocks

UL 486E
Equipment wiring terminals for use with aluminum and/or copper conductors

UL 508
Industrial control equipment

ANSI/ISA12.12.01
Nonincendive electrical equipment for use in Class I and Class II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations

Ship Classifications

ABS (American Bureau of Shipping)
Steel Vessels
Part 4: Vessel Systems and Machinery

BV (Bureau Veritas)
Rules for the classification of steel ships and offshore units

DNV (Det Norsk Veritas)
Det Norsk Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norsk Veritas' Offshore Standards: 2007

GL (Germanischer Lloyd)
Rules for Classification and Construction
VI Additional Rules and Guidelines
7 Guidelines for the Performance of Type Test
2 Test Requirements for Electrical/Electronic Devices and Systems

LR (Lloyds Register)
Type Approval System
Test Specification Number1

RINA (Registro Italiano Navale)
Rules for the classification of ships
Part C – Machinery, systems and fire protection Ch.3, Sect.6, Table1

BSH (Federal Maritime and Hydrographic Agency)
Certificate on measurement of safe distance to the standard magnetic and steering magnetic compass in accordance with ISO R 695 and DIN EN 60945 Section 11.2

KR (Korean Register of Shipping)
List of approved Manufacturers And Type Approval Equipment; Pt.6, Ch.1, Sec.3 of the Rules for Classification, Steel Ships

NKK (Nippon Kaiji Kyokai)
Guidance for the approval and type approval of materials and equipment for marine use

PRS (Polski Rejestr Statkow)
Publication No.11/P
Enviromental Tests on Marine Equipment

Electrical Engineering Laboratory Product Safety for Our Customers

To use terminal blocks globally, they must satisfy certain standards and obtain test certificates. These requirements apply to every manufacturer. WAGO also conducts its own tests to increase standards and offer greater reliability with its products. Products undergo a full range of mechanical, electrical and climatic testing, and we'll share a few of those processes with you.

WAGO Test Lab

This means that WAGO's products can be used safely and reliably both in Europe and anywhere globally for a wide variety of applications. We heavily emphasize the importance of global acceptance during development. As a result, we can present documentation that verifies our high levels of product safety and reliability while ensuring the fulfillment and accuracy of technical data, which are the highest priorities for our customers and users worldwide.
On December 22, 2009, our test lab was accredited by the German Accreditation Association (Deutsche Gesellschaft für Akkreditierung GmbH) in accordance with DIN EN ISO/IEC 17025.

Pull-Out Test (per EN 60947-7-1, EN 60998-2-2)

During the pull-out force test, a conductor is pulled on until it is removed from the clamping unit. The design of the terminals means that extraction only occurs after the standard pull-out force has been exceeded many times over.

Vibration Test (per IEC/EN 60068-2-6)

Depending on the application, such as railway (per EN 61373) or marine (per GL, LR, DNV), there are various testing requirements to determine if the long-term effects of vibrations degrade electrical connections. The test specimen is subjected to different loads on three axes in an electrodynamic vibration system. The amplitude, the acceleration, and particularly the frequency of the vibration vary during the test. The test values are increased many times over the standard values to meet special customer requirements.

Shock Test (per IEC/EN 60068-2-27)

The shock test is very similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the test specimen. Shock tests are usually performed, for example, at an acceleration of 20g over a period of 11 ms. Tests for special requirements often call for much higher values and are also conducted in our laboratory..

Voltage Drop Test under Bending Stress (per WAGO test requirements)

The voltage drop test under bending stress simulates mechanical stress on the clamping unit. In everyday use, this stress can occur during installation, for example, when an electrician shoves connected conductors to the side in order to access a specific component. The quality of the clamping unit when moving a connected conductor can be validated by the constantly stable measured value of the voltage drop.

DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

WAGO GmbH & Co. KG
Hansastraße 27, 32423 Minden

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

Electrical and mechanical testing of terminals and connectors and environmental simulation

The accreditation certificate shall only apply in connection with the notice of accreditation of 18.05.2022 with the accreditation number D-PL-19704-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 9 pages.

Registration number of the certificate: **D-PL-19704-01-00**

Berlin,
29.06.2022

Florian Burkart
Head of Technical Unit

Translation issued:
29.06.2022

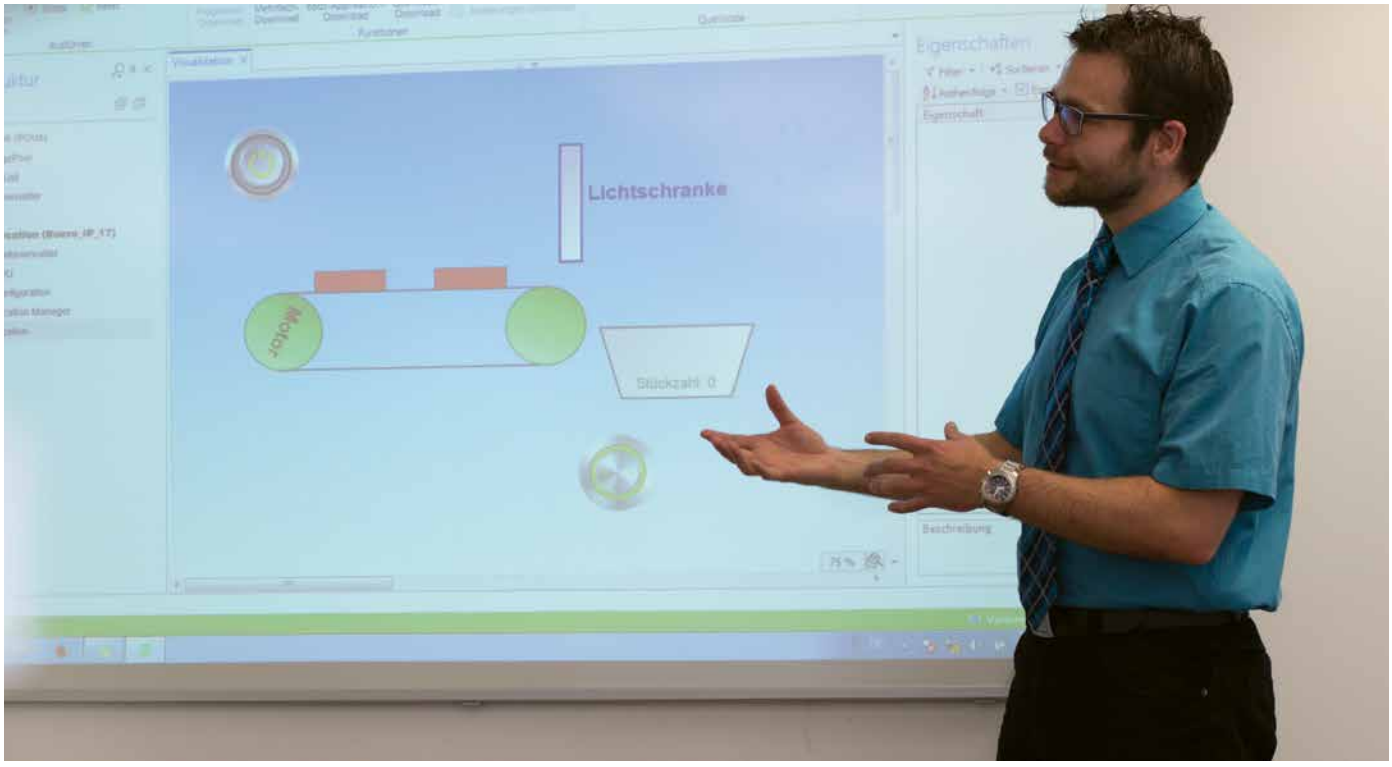
Head of Technical Unit

The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de/en/accredited-bodies-search.html.

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

WAGO-Seminars
Learn Today – Benefit Tomorrow



Setting the Bar with Your Goals

Product-Related and Customer-Specific Seminars

Small Groups

The small class sizes of WAGO training seminars ensures that no question goes unanswered and no one is overlooked.

Teamwork

Learning as a group is very effective. Ideas can be discussed and exchanged while experiences can be shared – all for the benefit of the participants.

Practical Topics

Experience has shown that practice makes perfect. This is why the focus of every WAGO training seminar is on practical, hands-on learning.

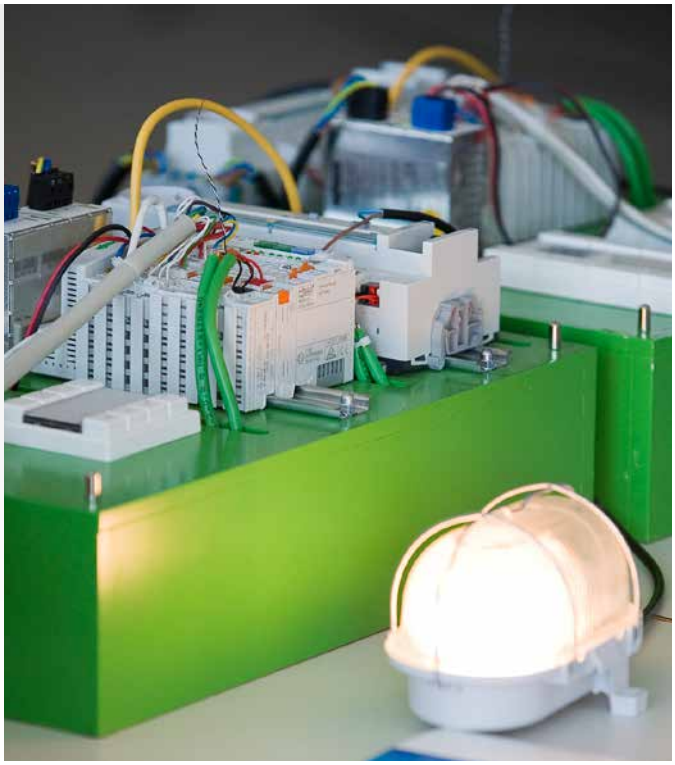
WAGO-Seminars
Experience the Benefits of First-Hand Knowledge and Expertise – Straight from the Source

Our instructors are specialists who know all the ins and outs of WAGO's products. This ensures that the time devoted to each WAGO training seminar is an effective investment in expanding your own expertise.

Request your registration form by email:

training@wago.com

Contact your local WAGO office.



Product-Related Seminars

We regularly offer product-related seminars on the following topics:

- Building and industrial automation
- Programming of automation components
- Fieldbus systems

Current Seminars at: www.wago.com

Customer-Specific Training Seminars

In addition to these "open" seminars, we also offer seminars specially tailored to your organization and its particular needs.

Upon request, we can also conduct these courses at your location.

Special Corporate Seminars

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WAGO GmbH & Co. KG
Postfach 2880 · D · 32385 Minden
Hansastraße 27 · D · 32423 Minden
info@wago.com
www.wago.com

Headquarters +49 571 887 - 0
Sales +49 571 887 - 44222
Order Service +49 571 887 - 44333

Current adresses at **www.wago.com**

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