Relay Module - PLC-RPT- 48DC/21HC - 2900294

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The figure shows a version with a screw connection

PLC-INTERFACE for high continuous currents, consisting of PLC-BPT.../21 HC basic terminal block with push-in connection and plug-in miniature relay, for mounting on DIN rail NS 35/7,5, limiting continuous current up to 10 A, 1 PDT, input voltage 48 V DC

Product Features

- All common input voltages of 12 V DC to 230 V AC
- Long electrical service life thanks to 16 A relay
- Efficient connection to system cabling using V8 adapter
- Safe isolation according to DIN EN 50178 between coil and contact
- Max. continuous current of 10 A
- Functional plug-in bridges

Key Commercial Data

Packing unit	1 pc
Custom tariff number	85364190
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Coil side

Nominal input voltage U_N	48 V DC
Typical input current at U_N	20 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Reverse polarity protection Polarity protection diode
	Free-wheeling diode Damping diode
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.96 W

Contact side

Contact type	1 PDT
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...)
Minimum switching voltage	12 V DC (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	30 A (300 ms)
Limiting continuous current	10 A
	6 A (value applies to connections 12. If connections 12 are bridged, the normal value applies.)
Interrupting rating (ohmic load) max.	240 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	2500 VA (for 250 V AC)
Interrupting rating (ohmic load) max. bridged	144 W (for 24 V DC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)
	1500 VA (for 250 V AC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	6 A (at 24 V, AC15)

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Technical data

Contact side

	6 A (at 120 V, AC15)
	6 A (at 250 V, AC15)

Connection data input side

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

General

Operating mode	100% operating factor
Degree of protection	RT II (Relay)
Mechanical service life	3 x 10^7 cycles
Flammability rating according to UL 94	V0
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated surge voltage/insulation	6 kV / Safe isolation, increased insulation
Degree of pollution	2
Overvoltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Connection in acc. with standard	CUL
Designation	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178

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Technical data

Standards and Regulations

	IEC 62103
Rated surge voltage/insulation	6 kV / Safe isolation, increased insulation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0

Articles in set

Relay socket - PLC-BPT- 48DC/21HC - 2900256

14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

Single relay - REL-MR- 24DC/21HC - 2961312

Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 24 V DC

Classifications

eCl@ss

eCl@ss 4.0	27371001
eCl@ss 4.1	27371001
eCl@ss 5.0	27371001
eCl@ss 5.1	27371001
eCl@ss 6.0	27371001
eCl@ss 7.0	27371001
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

ETIM

ETIM 4.0	EC000196
ETIM 5.0	EC001437

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Classifications

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39121515

Approvals

Approvals

Approvals

GL / UL Listed / cUL Listed / UL Recognized / cUL Recognized / EAC / RC FRT / cULus Recognized / cULus Listed

Ex Approvals

Approvals submitted

Approval details

GL

UL Listed

cUL Listed

UL Recognized

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Approvals

cUL Recognized

EAC

RC FRT

cULus Recognized

cULus Listed

Accessories

Accessories

Bridge

Continuous plug-in bridge - FBST 500-PLC RD - 2966786

Continuous plug-in bridge, Length: 500 mm, Color: red

Continuous plug-in bridge - FBST 500-PLC BU - 2966692

Continuous plug-in bridge, Length: 500 mm, Color: blue

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Accessories

Continuous plug-in bridge - FBST 500-PLC GY - 2966838

Continuous plug-in bridge, Length: 500 mm, Color: gray

Single plug-in bridge - FBST 6-PLC RD - 2966236

Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: red

Single plug-in bridge - FBST 6-PLC BU - 2966812

Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: blue

Single plug-in bridge - FBST 6-PLC GY - 2966825

Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: gray

Single plug-in bridge - FBST 8-PLC GY - 2967688

Single plug-in bridge, Length: 8 mm, Number of positions: 2, Color: gray

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Accessories

Single plug-in bridge - FBST 14-PLC BK - 2967691

Single plug-in bridge, Length: 14 mm, Number of positions: 2, Color: black

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DIN rail

DIN rail, unperforated - NS 35/ 7,5 V2A UNPERF 2000MM - 0801377

DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

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DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733

DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm

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DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762

DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714

DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m

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Accessories

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895

DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

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DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798

DIN rail, material: Steel, unperforated, 2.3 mm thick, height 15 mm, width 35 mm, length: 2 m

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DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756

DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

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DIN rail perforated - NS 35/15 PERF 2000MM - 1201730

DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681

DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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Labeled terminal marker

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Accessories

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014

Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Partition plate

Separating plate - PLC-ATP BK - 2966841

Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation

Power module

Power terminal block - PLC-ESK GY - 2966508

Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517

Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Terminal marking

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Accessories

Zack marker strip - ZB10/WH-100:UNBEDRUCKT - 5060883

Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

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Zack marker strip - ZB 10:UNBEDRUCKT - 1053001

Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm

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Spare parts

Relay socket - PLC-BPT- 48DC/21HC - 2900256

14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

Single relay - REL-MR- 24DC/21HC - 2961312

Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 24 V DC

Drawings

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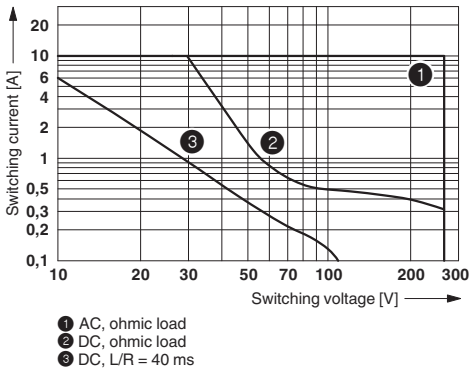
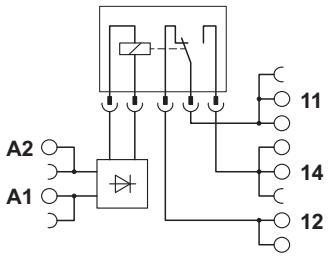
Diagram



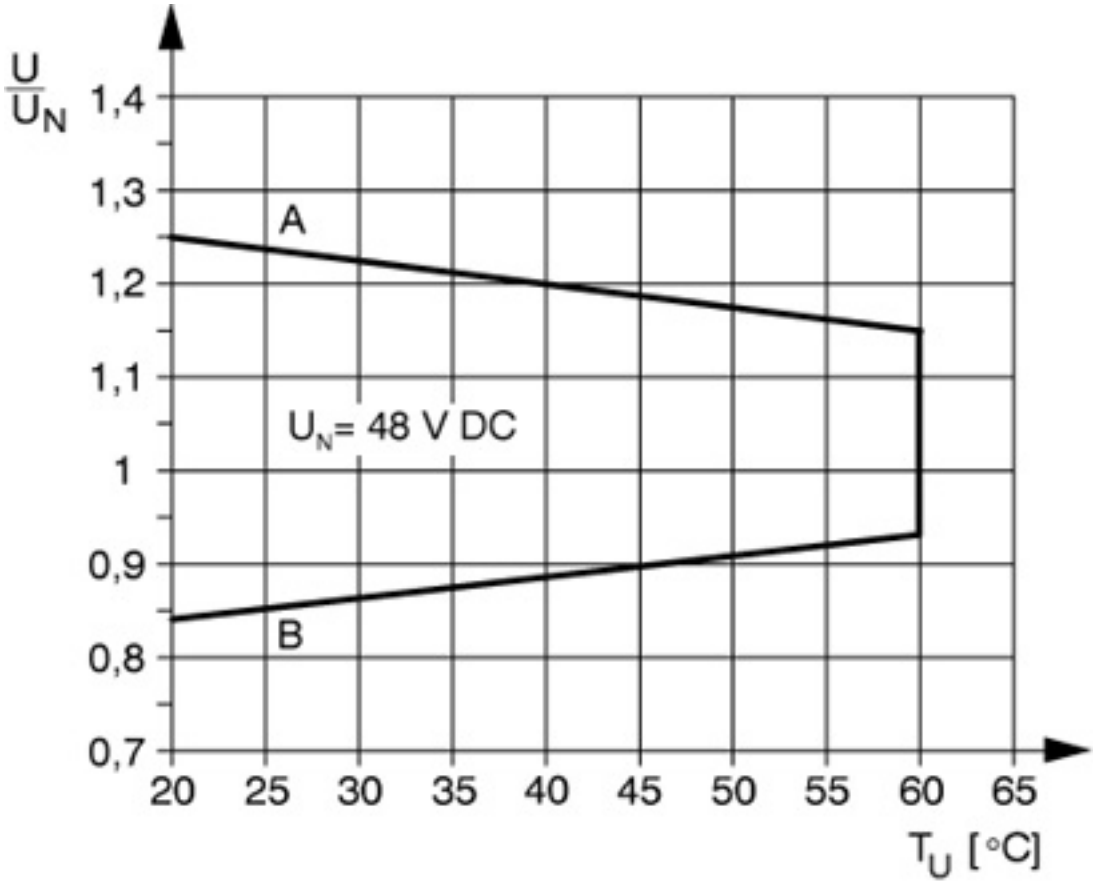
❶ AC, ohmic load
❷ DC, ohmic load
❸ DC, L/R = 40 ms

Circuit diagram



Interrupting rating

Diagram



Curve A
Maximum permissible continuous voltage U_{max} with limiting continuous current on the contact side (see relevant technical data)

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Curve B
Minimum permissible operate voltage U_{op} after pre-excitation (see relevant technical data)