

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

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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

The figure shows a version with a screw connection

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 |

Ambient conditions

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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 |
| Operating voltage display | Yellow LED |
| Protective circuit | Protection against polarity reversal Polarity protection diode |
| | Free-wheeling diode Damping diode |

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) |
| Maximum inrush current | 30 A (300 ms) |
| Min. switching current | 10 mA (at 12 V) |
| 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) |
| | 6 A (at 120 V, AC15) |

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Technical data

Contact side

| | |
|--|----------------------|
| | 6 A (at 250 V, AC15) |
|--|----------------------|

General

| | |
|---|---|
| Operating mode | 100% operating factor |
| Degree of protection | RT II (Relay) |
| Mechanical service life | 3 x 10 ⁷ cycles |
| Inflammability class 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 |
| Pollution degree | 2 |
| Surge voltage category | III |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

Connection data

| | |
|--|----------------------|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section stranded min. | 0.14 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section solid min. | 0.14 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil max | 14 |
| Conductor cross section AWG/kcmil min. | 26 |

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

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Articles in set

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 | 27371001 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC000196 |
| ETIM 5.0 | EC000196 |

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 / cUL Listed / cULus Recognized / cULus Listed / cULus Listed / cULus Listed / null / null / null / null










Ex Approvals

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

Approvals

Approvals submitted

Approval details

| |
|--|
| GL |
| UL Listed  |
| cUL Listed  |
| UL Recognized  |
| cUL Recognized  |
| cUL Listed  |
| cULus Recognized   |
| cULus Listed  |
| cULus Listed  |

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

Approvals

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

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



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

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Accessories

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

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



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

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

Mounting 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

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

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

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

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

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

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

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

Partition plate

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Accessories

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

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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Accessories

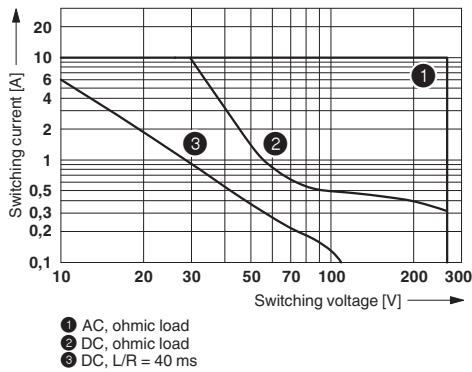
Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



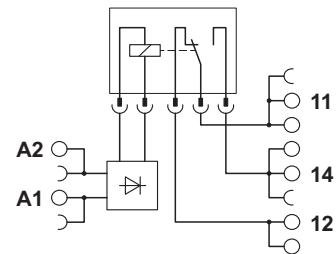
Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm

Drawings

Diagram



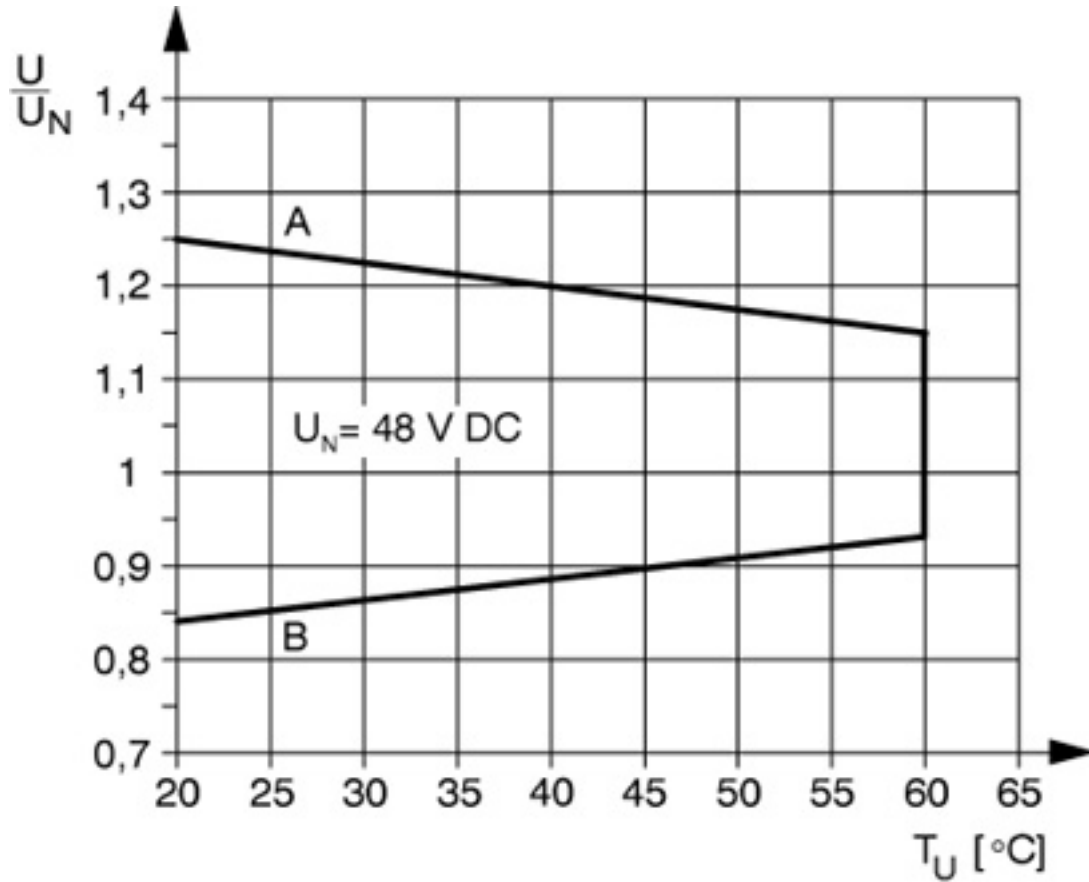
Circuit diagram



Interrupting rating

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Diagram



Curve A

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

Curve B

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