

Relay Module - PLC-RPT- 24UC/21-21AU/RW - 2900349

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PLC-INTERFACE for railway applications, consisting of basic terminal block with push-in connection and plug-in miniature relay with multi-layer gold contact, range: $0.7 \times U_N$ to $1.25 \times U_N$, temperature class TX: -40°C to $+70^\circ\text{C}$, 2 PDTs, input voltage 24 V DC

The figure shows a version with a screw connection

Product Features

- ✓ Optimum relay operation thanks to wide-range electronics
- ✓ Vibration and shock resistance according to EN 50155
- ✓ Safe isolation according to DIN EN 50178 between coil and contact
- ✓ Certified according to EN 50155
- ✓ Spring-cage and Push-in connection technology
- ✓ Input voltage range of 0.7 to $1.25 \times U_N$ ($1.4 \times U_N$ briefly)
- ✓ Temperature range from -40°C to $+70^\circ\text{C}$ ($+85^\circ\text{C}$ briefly)



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 99.99 GRM |
| 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 |

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Technical data

Dimensions

| | |
|-------|-------|
| Depth | 94 mm |
|-------|-------|

Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 70 °C (Temperature class TX) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Coil side

| | |
|---|-----------------------------------|
| Nominal input voltage U_N | 24 V DC |
| Input voltage range in reference to U_N | 0.7 ... 1.25 |
| Typical input current at U_N | 20 mA |
| Typical response time | 5 ms |
| Typical release time | 11 ms |
| Operating voltage display | Yellow LED |
| Protective circuit | Bridge rectifier Bridge rectifier |
| | Free-wheeling diode Damping diode |
| | Surge protection |
| | RCZ filter |
| | Wide-range electronics |

Contact side

| | |
|---------------------------------------|---|
| Contact type | 2 PDT |
| Contact material | AgNi, hard gold-plated |
| Maximum switching voltage | 30 V AC |
| | 36 V DC |
| Minimum switching voltage | 100 mV (at 10 mA) |
| Maximum inrush current | 50 mA |
| Min. switching current | 1 mA (at 24 V) |
| Limiting continuous current | 50 mA |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC) |
| Note | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage | 250 V AC/DC (Separating plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules.) |
| Minimum switching voltage | 5 V AC/DC |
| Limiting continuous current | 6 A |
| Maximum inrush current | 8 A |
| Min. switching current | 10 mA |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC) |
| | 100 W (at 48 V DC) |

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Contact side

| | |
|--|------------------------|
| | 60 W (at 60 V DC) |
| | 44 W (at 110 V DC) |
| | 60 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |
| 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) |
| | 2 A (at 24 V, AC15) |
| | 2 A (at 120 V, AC15) |
| | 2 A (at 250 V, AC15) |

General

| | |
|--|---------------------------------------|
| Test voltage relay winding/relay contact | 5 kV _{rms} (50 Hz, 1 min.) |
| Test voltage PDT/PDT | 2.5 kV _{rms} (50 Hz, 1 min.) |
| Operating mode | 100% operating factor |
| Degree of protection | Relay socket |
| | RT III (Relay) |
| Mechanical service life | Approx. 3 x 10 ⁷ cycles |
| Inflammability class according to UL 94 | V0 |
| Standards/regulations | EN 50155 (VDE 0115 part 200) |
| | EN 50178 |
| | IEC 62103 |
| | EN 61373 |
| | EN 50121 |
| Rated surge voltage / insulation | 6 kV / Basic isolation |
| Rated insulation voltage | 250 V AC |
| 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 |

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Connection data

| | |
|--|----|
| Conductor cross section AWG/kcmil max | 14 |
| Conductor cross section AWG/kcmil min. | 26 |

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


Approvals submitted

Relay Module - PLC-RPT- 24UC/21-21AU/RW - 2900349


Approvals


Approval details

GL


UL Listed 

cUL Listed 

UL Recognized 

cUL Recognized 

cUL Listed 

cULus Recognized  US

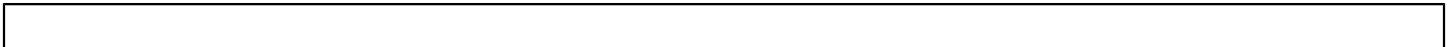
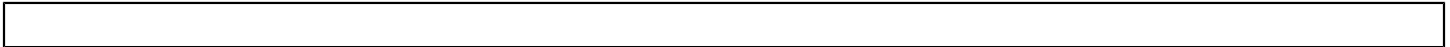
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Approvals



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

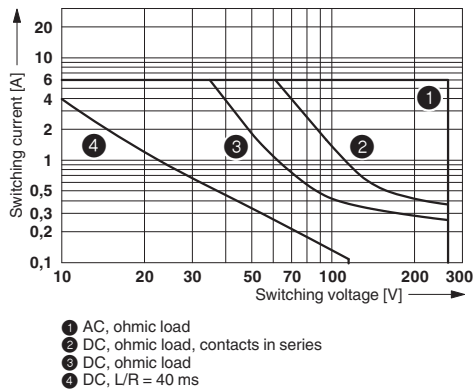
Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



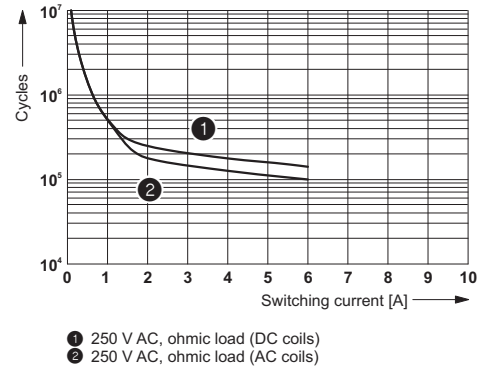
Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm

Drawings

Diagram



Diagram



Electrical service life

Interrupting rating

Circuit diagram

