

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



PLC-INTERFACE for railway applications, consisting of basic terminal block with push-in connection and integrated miniature solid-state relay, range: $0.7 \times U_N$ to $1.25 \times U_N$, temperature range: -25°C to $+70^\circ\text{C}$, 1 N/O contact, input: 48 V DC, output: 12 - 140 V DC/3 A

The figure shows a version with a screw connection

Why buy this product

- Shock resistance according to DIN 50155 (requirements according to EN 61373)
- Temperature range of -25°C to $+70^\circ\text{C}$
- Input voltage range of $0.7 - 1.25 \times U_N$



Key commercial data

| | |
|--------------------------------------|---|
| Packing unit | 10 pc |
| GTIN |  4 046356 508988 |
| Weight per Piece (excluding packing) | 31.89 g |
| Custom tariff number | 85364190 |
| Country of origin | Germany |
| Note | Made to Order (non-returnable) |

Technical data

Note

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

Dimensions

| | |
|--------|--------|
| Width | 6.2 mm |
| Height | 80 mm |
| Depth | 86 mm |

Ambient conditions

| | |
|---------------------------------|--|
| Ambient temperature (operation) | $-25^\circ\text{C} \dots 70^\circ\text{C}$ |
|---------------------------------|--|

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Technical data

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Degree of protection | IP20 |

Input data

| | |
|--|---|
| Nominal input voltage U_N | 48 V DC |
| Input voltage range in reference to U_N | 0.7 ... 1.25 ($t < 1 \text{ s} = 0.6 \dots 1.4 \times U_N$) |
| Switching threshold "0" signal in reference to U_N | < 0.3 |
| Switching threshold "1" signal in reference to U_N | > 0.6 |
| Typical input current at U_N | 5.5 mA |
| Typical response time | 40 μs |
| Typical turn-off time | 200 μs |
| Operating voltage display | Yellow LED |
| Type of protection | Protection against polarity reversal |
| | Surge protection |
| Protective circuit/component | Series polarity protection diode |
| Surge voltage protection | > 150 V |
| Transmission frequency | 300 Hz |

Output data

| | |
|--|--|
| Output nominal voltage | 110 V DC |
| Output voltage range | 12 V DC ... 140 V DC ($t < 1 \text{ s} = 1.40 \times U_N$) |
| Limiting continuous current | 3 A (see derating curve) |
| Surge voltage protection | > 150 V |
| Voltage drop at max. limiting continuous current | < 150 mV |
| Output circuit | 2-wire, floating |
| Type of protection | Protection against polarity reversal |
| | Surge protection |
| Protective circuit/component | Parallel polarity protection diode |

Connection data

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

General

| | |
|---------------------------|---------------------------|
| Test voltage input/output | 2.5 kV _{rms} |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Technical data

General

| | |
|---|---|
| Operating mode | 100% operating factor |
| Inflammability class according to UL 94 | V0 |
| Designation | Air and creepage distances between the power circuits |
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | IEC 62103 |
| Rated surge voltage/insulation | 4 kV / basic insulation |
| Rated insulation voltage | 160 V DC |
| Pollution degree | 2 |
| Surge voltage category | III |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| 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 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001504 |
| ETIM 3.0 | EC001504 |
| ETIM 4.0 | EC000196 |
| ETIM 5.0 | EC001437 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121542 |
| UNSPSC 11 | 39121542 |
| UNSPSC 12.01 | 39121542 |
| UNSPSC 13.2 | 39121542 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / UL Recognized / cUL Recognized / EAC / cULus Recognized / cULus Listed

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Approvals


Ex Approvals


Approvals submitted

Approval details


UL Listed 

cUL Listed 

UL Recognized 

cUL Recognized 

EAC

cULus Recognized 

cULus Listed 

Accessories

Accessories

Bridge

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Accessories

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

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

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Accessories

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

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

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Accessories

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



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

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

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Accessories

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

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

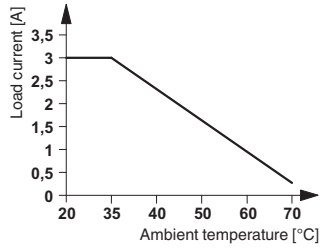


Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Drawings

Solid-state relay module - PLC-OPT- 48DC/110DC/3RW - 2900393

Diagram



Circuit diagram

