# PLC-OPT- 24DC/ 48DC/500/W - Solid-state relay module

2900378

https://www.phoenixcontact.com/nl/products/2900378

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PLC-INTERFACE with electronic changeover contact, consisting of PLC-BPT…/21 basic terminal block with Push-in connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 changeover contact, input: 24 V DC, output: 3-48 V DC/500 mA

## Your advantages

- Wear-free switching with no contact bounce
- Resistant to vibrations and shocks
- Protective circuit in input and output
- Option of bridging adjacent modules
- DC voltage outputs of up to 300 V DC/1 A or up to 24 V DC/10 A
- Electronic changeover contact output up to 48 V DC/500 mA
- Status indicator

## Commercial data

| | |
|---|---|
| Item number | 2900378 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | DK62A3 |
| Product key | DK62A3 |
| GTIN | 4046356506977 |
| Weight per piece (including packing) | 28,89 g |
| Weight per piece (excluding packing) | 29,46 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

## Technical data

### Product properties

| | |
|---|---|
| Product family | PLC-INTERFACE |
| Application | With integrated solid-state relay |
| Operating mode | 100% operating factor |

Insulation characteristics: Standards/regulations

| | |
|---|---|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|---|---|
| Date of last data management | 20.01.2026 |

### Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 0.07 W |

Standards/regulations

| | |
|---|---|
| Rated insulation voltage | 300 V |
| Rated surge voltage | 4 kV |

### Input data

| | |
|---|---|
| Nominal input voltage $U_N$ | 24 V DC |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.2 |
| Input voltage range | 19.2 V DC ... 28.8 V DC |
| Switching threshold "0" signal in reference to $U_N$ | ≤ 0.4 |
| Switching threshold "1" signal in reference to $U_N$ | ≥ 0.8 |
| Typical input current at $U_N$ | 3 mA |
| Typical response time | 0.03 ms |
| Typical turn-off time | 0.15 ms |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| | Surge protection |
| Transmission frequency | 1000 Hz |

### Output data

| | |
|---|---|
| Contact switching type | 1 changeover contact |
| Design of digital output | electronic |
| Contact connection type | Power contact |
| Output voltage range | 3 V DC ... 48 V DC |
| Limiting continuous current | 500 mA (see derating curve) |
| Load current | ≥ 10 mA (Terminal block 12) |
| | ≥ 5 mA (Terminal block 14) |
| Quiescent current | ≤ 1.5 mA (Terminal block 12) |

| | |
|---|---|
| | ≤ 0.05 mA (Terminal block 14) |
| Voltage drop at max. limiting continuous current | < 1.2 V |
| Output circuit | 2-conductor, floating |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| | Surge protection |

## Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross-section rigid | 0.14 mm² ... 2.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² (Single ferrule) |
| | 2x 0.5 mm² ... 1 mm² (TWIN ferrule) |
| Conductor cross-section AWG | 26 ... 14 |

## Dimensions

| | |
|---|---|
| Width | 6.2 mm |
| Height | 80 mm |
| Depth | 94 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 (Housing) | V0 (Housing) |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

### Corrosive gas test

| | |
|---|---|
| Identification | ISA-S71.04. G3 Harsh Group |
| | EN 60068-2-60 |

## Standards and regulations

### Standards/regulations

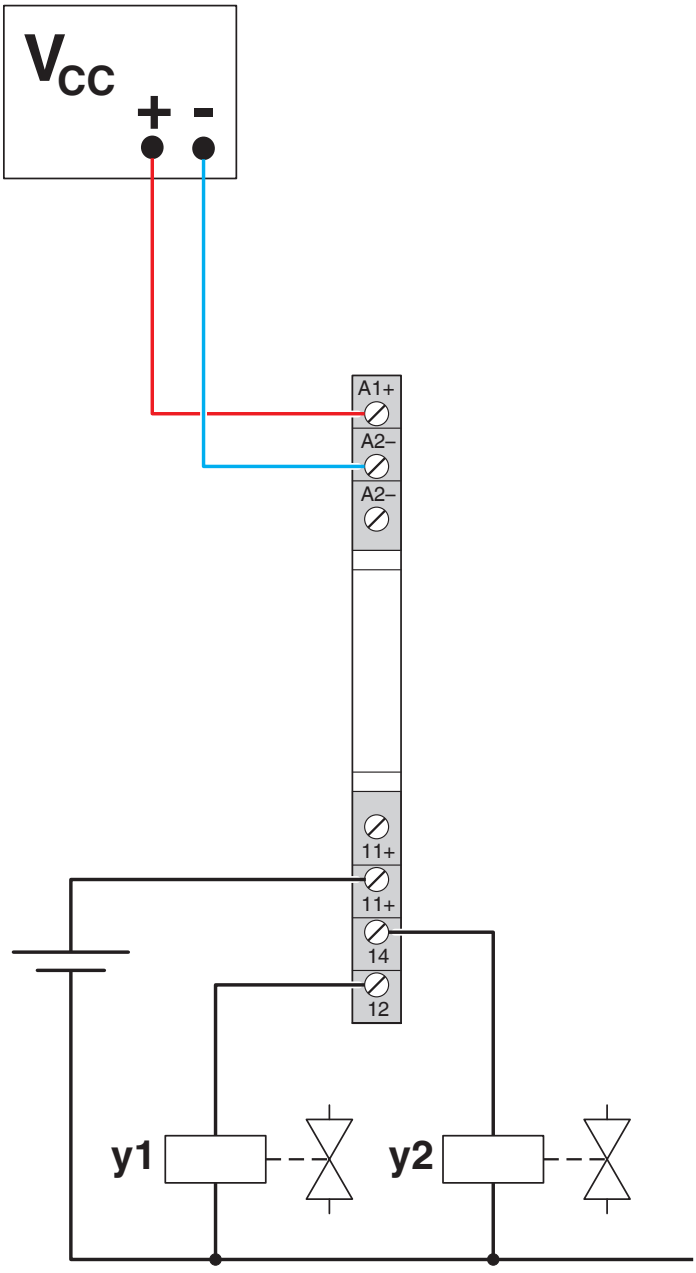
| | |
|---|---|
| Standards/regulations | IEC 60664 |
| | EN 50178 |

## Mounting

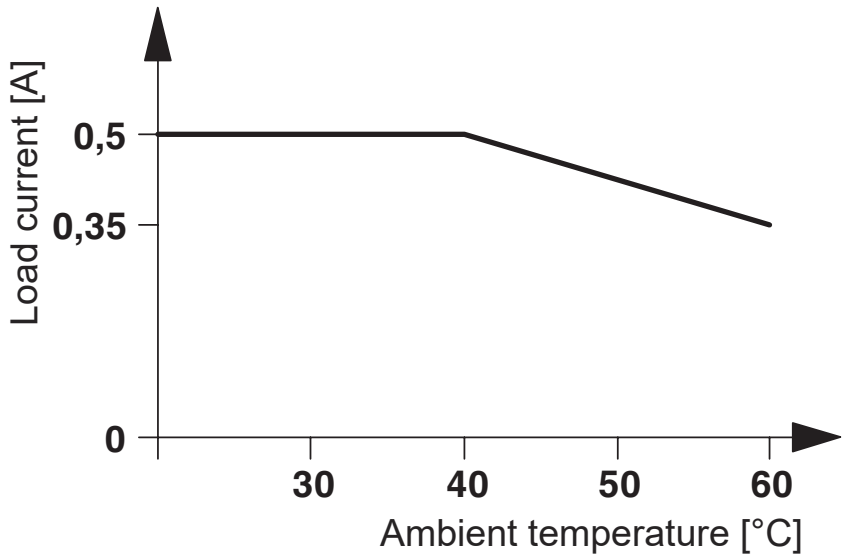
| | |
|---|---|
| Mounting type | DIN rail mounting |
| Assembly note | in rows with zero spacing |
| Mounting position | any |

## Drawings

Application drawing

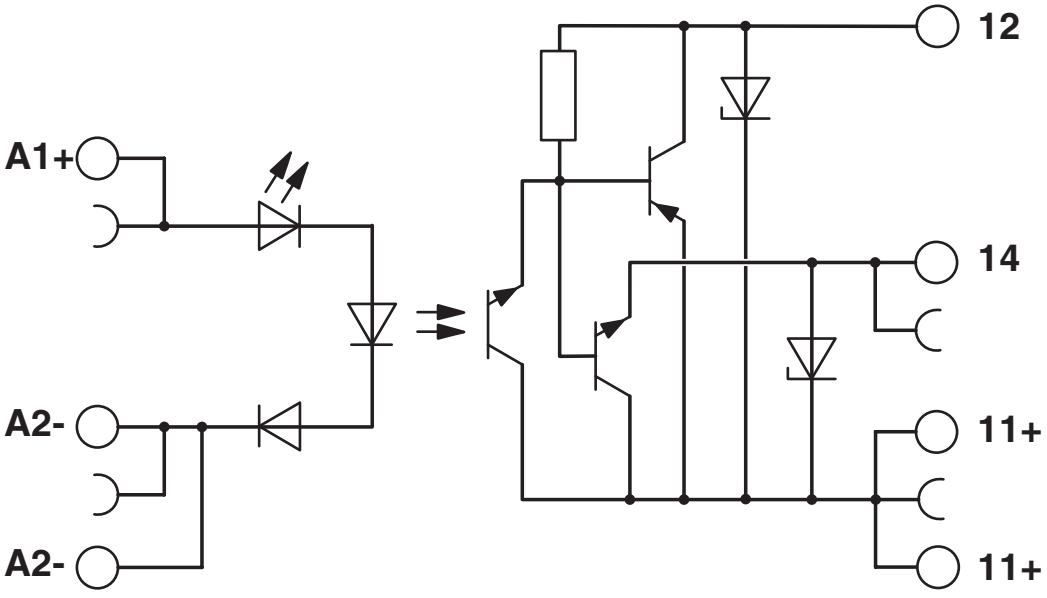


Diagram




The figure shows the derating curve for PLC-...24DC/48DC/500/W

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/nl/products/2900378

**cULus Listed**
Approval ID: E140324

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27371604 |
| ECLASS-15.0 | 27371604 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001504 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39122300 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 0e235f68-d7d4-484a-8115-5d136084f2b0 |

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