

PLC-OPT- 48DC/230AC/1 - Solid-state relay module



2900370

<https://www.phoenixcontact.com/us/products/2900370>

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PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 48 V DC, output: 24 - 253 V AC/0.75 A

Your advantages

- Slim design
- Efficient connection to system cabling using V8 adapter
- RT III sealed solid-state relay
- Integrated input circuit
- Functional plug-in bridges
- Zero voltage switch at AC output
- High switching power

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2900370 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C461 |
| Product key | DK62A4 |
| GTIN | 4046356508810 |
| Weight per piece (including packing) | 34.58 g |
| Weight per piece (excluding packing) | 31.27 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

Technical data

Product properties

| | |
|----------------|--------------------------|
| Product type | Solid-state relay module |
| Product family | PLC-INTERFACE |
| Application | Universal |
| 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 | 01.04.2026 |
|------------------------------|------------|

Electrical properties

| | |
|---|--------------------------------------|
| Maximum power dissipation for nominal condition | 0.43 W |
| Test voltage (Input/output) | 2.5 kV (50 Hz, 1 min., input/output) |

Input data

| | |
|--|--|
| Nominal input voltage U_N | 48 V DC |
| Nominal voltage (plugged-in solid-state relay) | 24 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |
| Input voltage range | 38.4 V DC ... 57.6 V DC |
| Switching threshold "0" signal in reference to U_N | ≤ 0.25 |
| Switching threshold "1" signal in reference to U_N | ≥ 0.8 |
| Typical input current at U_N | 9 mA |
| Typical response time | 10 ms (at U_N) |
| Typical turn-off time | 10 ms (at U_N) |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection; Polarity protection diode Freewheeling diode; Freewheeling diode |
| Transmission frequency | 10 Hz |

Output data

| | |
|-----------------------------|-----------------------------|
| Contact switching type | 1 N/O contact |
| Design of digital output | electronic |
| Output voltage range | 24 V AC ... 253 V AC |
| Limiting continuous current | 750 mA (see derating curve) |
| Maximum inrush current | 30 A (10 ms) |
| Min. load current | 10 mA |
| Leakage current | < 1 mA (in off state) |
| Phase angle $\cos \phi$ min | 0.5 |

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| | |
|--|-----------------------|
| Max. load value | 4.5 A ² s |
| Voltage drop at max. limiting continuous current | < 1 V |
| Output circuit | 2-conductor, floating |
| Protective circuit | RCV circuit |

Connection data

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

Dimensions

Item 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) | -25 °C ... 70 °C |

Approvals

CE

| | |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

UKCA

| | |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

Shipbuilding approval

| | |
|-------------|------------|
| Certificate | TAE0000196 |
|-------------|------------|

Corrosive gas test

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

Shipbuilding data

| | |
|-------------|---|
| Temperature | D |
|-------------|---|

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| | |
|-----------|---|
| Humidity | A |
| Vibration | B/C |
| EMC | B |
| Enclosure | Required protection according to the Rules shall be provided upon installation on board |

EMC data

| | |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC directive |
| Low Voltage Directive | Conformance with Low Voltage Directive |

Standards and regulations

Standards/regulations

| | |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-5-1 |
|-----------------------|---------------|

Mounting

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

Drawings

Diagram



Circuit diagram



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Approvals

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EAC

Approval ID: RU*C-DE.*08.B.00010



DNV GL

Approval ID: TAE0000196



cULus Listed

Approval ID: E140324



cULus Listed

Approval ID: E140324

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Classifications

ECLASS

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

ETIM

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

UNSPSC

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

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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.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
| | Lead(CAS: 7439-92-1) |
| SCIP | 88a62159-2cd5-4bc8-8ea8-cb8a7a64b93e |

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 1.725 kg CO2e |
|---------|---------------|

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