

# PLC-RSC- 48DC/21 - Relay module



2966113

<https://www.phoenixcontact.com/us/products/2966113>

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PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 48 V DC

## Your advantages

- Slim design
- Efficient connection to system cabling using V8 adapter
- Safe isolation between coil and contact side
- RT III sealed relay
- Integrated input circuit and interference suppression circuit
- Functional plug-in bridges

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2966113       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | C461          |
| Product key                          | DK6226        |
| GTIN                                 | 4017918161972 |
| Weight per piece (including packing) | 38.9 g        |
| Weight per piece (excluding packing) | 33.89 g       |
| Customs tariff number                | 85364190      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

|                         |                           |
|-------------------------|---------------------------|
| Product type            | Relay Module              |
| Product family          | PLC-INTERFACE             |
| Application             | Universal                 |
| Operating mode          | 100% operating factor     |
| Mechanical service life | 2x 10 <sup>7</sup> cycles |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

### Electrical properties

|   |  |
|---|--|
| Maximum power dissipation for nominal condition | 0.44 W                                   |
| Test voltage (Winding/contact)                  | 4 kV AC (50 Hz, 1 min., winding/contact) |

### Insulation characteristics: Coil/contact

|                                 |       |
|---------------------------------|-------|
| Rated insulation voltage        | 250 V |
| Rated impulse withstand voltage | 6 kV  |
| Overvoltage category            | III   |
| Degree of pollution             | 3     |

### Input data

#### Coil side

|  |  |
|--|--|
| Nominal input voltage $U_N$                          | 48 V DC  |
| Input voltage range                                  | 37.4 V DC ... 60 V DC (20 °C)  |
| Nominal voltage (plugged-in electromechanical relay) | 24 V DC  |
| Drive and function                                   | monostable   |
| Drive (polarity)                                     | polarized  |
| Typical input current at $U_N$                       | 9.2 mA   |
| Typical response time                                | 5 ms   |
| Typical release time                                 | 8 ms   |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode<br>Freewheeling diode; Freewheeling diode |
| Operating voltage display                            | yes  |

### Output data

#### Switching

|                           |   |
|---------------------------|---|
| Contact switching type    | 1 changeover contact  |
| Type of switch contact    | Single contact  |
| Contact material          | AgSnO   |
| 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 |

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|                                       |   |
|---------------------------------------|---|
|                                       | carried out with FBST 8-PLC... or ...FBST 500...) |
| Minimum switching voltage             | 5 V (100 mA)                                      |
| Limiting continuous current           | 6 A   |
| Maximum inrush current                | 10 A (4 s)  |
| Min. switching current                | 10 mA (12 V)                                      |
| Short-circuit current                 | 200 A (conditional short-circuit current)         |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC)                                |
|                                       | 20 W (at 48 V DC)                                 |
|                                       | 18 W (at 60 V DC)                                 |
|                                       | 23 W (at 110 V DC)                                |
|                                       | 40 W (at 220 V DC)                                |
|                                       | 1500 VA (for 250 V AC)                            |
| Output fuse                           | 4 A gL/gG NEOZED                                  |
| Switching capacity                    | 2 A (at 24 V, DC13)                               |
|                                       | 0.2 A (at 110 V, DC13)                            |
|                                       | 0.1 A (at 220 V, DC13)                            |
|                                       | 3 A (at 24 V, AC15)                               |
|                                       | 3 A (at 120 V, AC15)                              |
|                                       | 3 A (at 230 V, AC15)                              |

## Connection data

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection  |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross-section rigid    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                  |
| Conductor cross-section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                  |
|                                  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule)  |
|                                  | 2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule) |
| Conductor cross-section AWG      | 26 ... 14   |
| Tightening torque                | 0.6 Nm ... 0.8 Nm   |

## 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

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|   |                   |
|---|-------------------|
| Degree of protection (Relay base)       | IP20 (Relay base) |
| Ambient temperature (operation)         | -40 °C ... 60 °C  |
| Ambient temperature (storage/transport) | -40 °C ... 85 °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   |
| 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 | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

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

## Drawings

Diagram



### Curve A

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

### Curve B

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



Interrupting rating

Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2966113>



**EAC**

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



**cULus Listed**

Approval ID: E140324



**cULus Listed**

Approval ID: E140324



**cULus Listed**

Approval ID: E140324

**DNV**

Approval ID: TAE0000196

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001437 |
|-----------|----------|

### 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                                | 1eb597f0-8722-4b16-af00-bb7d1cde77c0        |

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