

# PLC-OSC- 24DC/ 48DC/100 - Solid-state relay module



2966728

<https://www.phoenixcontact.com/us/products/2966728>

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PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

## Your advantages

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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2966728       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | C461          |
| Product key                          | DK6223        |
| GTIN                                 | 4017918130565 |
| Weight per piece (including packing) | 37.6 g        |
| Weight per piece (excluding packing) | 35.5 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 | 15.09.2025 |
|------------------------------|------------|

### Electrical properties

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| Maximum power dissipation for nominal condition | 0.2 W                                |
| Test voltage (Input/output)                     | 2.5 kV (50 Hz, 1 min., input/output) |

### Input data

|                                                      |                                                                                                  |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Nominal input voltage $U_N$                          | 24 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                                  | 19.2 V DC ... 28.8 V DC                                                                          |
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.4$                                                                                       |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$                                                                                       |
| Typical input current at $U_N$                       | 8.5 mA                                                                                           |
| Typical response time                                | 20 $\mu$ s (at $U_N$ )                                                                           |
| Typical turn-off time                                | 300 $\mu$ s (at $U_N$ )                                                                          |
| Operating voltage display                            | Yellow LED                                                                                       |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode<br>Freewheeling diode; Freewheeling diode |
| Transmission frequency                               | 300 Hz                                                                                           |

### Output data

|                                                  |                                                        |
|--------------------------------------------------|--------------------------------------------------------|
| Contact switching type                           | 1 N/O contact                                          |
| Design of digital output                         | electronic                                             |
| Contact connection type                          | Signal contact                                         |
| Output voltage range                             | 3 V DC ... 48 V DC                                     |
| Limiting continuous current                      | 100 mA                                                 |
| Voltage drop at max. limiting continuous current | $\leq 1$ V                                             |
| Output circuit                                   | 2-conductor, floating                                  |
| Protective circuit                               | Reverse polarity protection; Polarity protection diode |

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|  |                  |
|--|------------------|
|  | Surge protection |
|--|------------------|

## Connection data

|                                  |                                       |
|----------------------------------|---------------------------------------|
| Connection method                | Screw connection                      |
| Stripping length                 | 8 mm                                  |
| Screw thread                     | M3                                    |
| 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 ... 1.5 mm² (TWIN ferrule) |
| Conductor cross-section AWG      | 26 ... 14                             |
| Tightening torque                | 0.6 Nm ... 0.8 Nm                     |

## 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   |
| Humidity    | A   |
| Vibration   | B/C |

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|           |                                                                                         |
|-----------|-----------------------------------------------------------------------------------------|
| 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

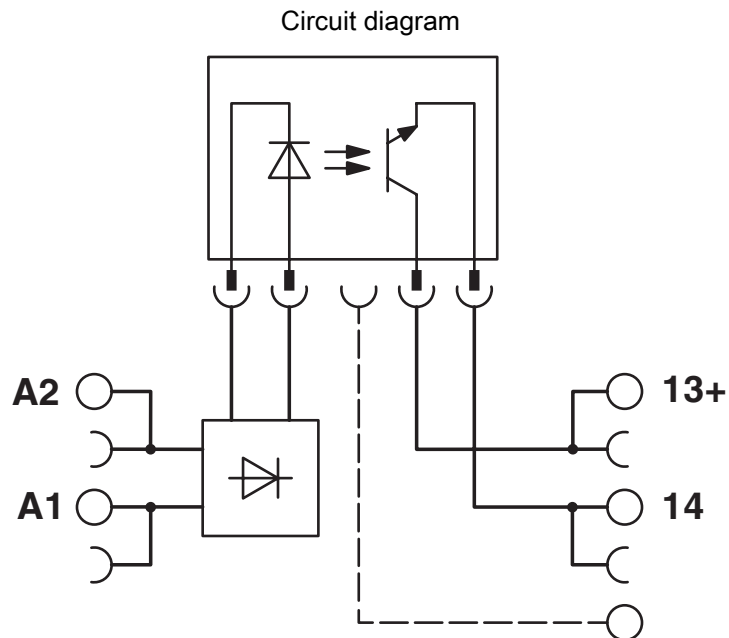
### Standards/regulations

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

## Mounting

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

## Drawings



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## Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2966728>



**EAC**

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



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | 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.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
|                                     | Lead(CAS: 7439-92-1)                        |
| SCIP                                | af2be7bc-8bbf-480b-9055-c6025c5f2d8d        |