

# PLC-OSC-120UC/ 48DC/100/SEN - Solid-state relay module



2966799

<https://www.phoenixcontact.com/cn/products/2966799>

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PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN 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: 120 V AC/110 V DC, output: 3 - 48 V DC/100 mA

## Your advantages

- Time savings of up to 60 %
- Efficient connection to system cabling using V8 adapter
- No need for additional modular terminal blocks
- Relay modules with safe isolation according to DIN EN 50178 between coil and contact
- Space savings of up to 80 %
- Functional plug-in bridges
- Sensor connected directly to relay module

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2966799             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | CK6215              |
| Product key                          | CK6215              |
| Catalog page                         | Page 381 (C-5-2019) |
| GTIN                                 | 4017918130619       |
| Weight per piece (including packing) | 38.12 g             |
| Weight per piece (excluding packing) | 38.12 g             |
| Customs tariff number                | 8536490090          |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                |                          |
|----------------|--------------------------|
| Product type   | Solid-state relay module |
| Product family | PLC-INTERFACE            |
| Application    | Input function           |
| Operating mode | 100% operating factor    |

### Insulation characteristics

|            |                  |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

### Insulation characteristics: Standards/regulations

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

### Electrical properties

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| Maximum power dissipation for nominal condition | 0.42 W                               |
| Test voltage (Input/output)                     | 2.5 kV (50 Hz, 1 min., input/output) |

### Input data

|                                                      |                                    |
|------------------------------------------------------|------------------------------------|
| Nominal input voltage $U_N$                          | 120 V AC                           |
|                                                      | 110 V DC                           |
| Input voltage range in reference to $U_N$            | 0.8 ... 1.1                        |
| Input voltage range                                  | 96 V AC ... 132 V AC               |
|                                                      | 88 V DC ... 121 V DC               |
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.3$                         |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$                         |
| Typical input current at $U_N$                       | 3.5 mA                             |
| Typical response time                                | 6 ms (at $U_N$ )                   |
| Typical turn-off time                                | 10 ms (at $U_N$ )                  |
| Operating voltage display                            | Yellow LED                         |
| Protective circuit                                   | Bridge rectifier; Bridge rectifier |
| Transmission frequency                               | 10 Hz                              |

### Output data

|                                                  |                                                        |
|--------------------------------------------------|--------------------------------------------------------|
| Contact switching type                           | 1 N/O contact                                          |
| Design of digital output                         | electronic                                             |
| 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 |
|                                                  | Surge protection                                       |

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## 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

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

## Material specifications

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

### DNV GL data

|             |     |
|-------------|-----|
| Temperature | D   |
| Humidity    | A   |
| Vibration   | B/C |
| EMC         | B   |

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|           |                                                                                         |
|-----------|-----------------------------------------------------------------------------------------|
| Enclosure | Required protection according to the Rules shall be provided upon installation on board |
|-----------|-----------------------------------------------------------------------------------------|

## EMC data

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

## Standards and regulations

### Standards/regulations

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

## Mounting

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



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## Approvals

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**cUL Recognized**  
Approval ID: FILE E 238705



**UL Recognized**  
Approval ID: FILE E 238705



**EAC**  
Approval ID: TR\_TS\_D\_00573\_c



**DNV GL**  
Approval ID: TAE0000196



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



**UL Listed**  
Approval ID: FILE E 172140



**cUL Listed**  
Approval ID: FILE E 172140



**cULus Listed**  
Approval ID: E140324

**cULus Recognized**

**cULus Listed**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371604 |
| ECLASS-12.0 | 27371604 |
| ECLASS-13.0 | 27371604 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001504 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
|            | Hexahydromethylphthalic anhydride                                                                            |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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