

# PLC-OSC- 24DC/230AC/2.4/ACT - Solid-state relay module



2904631  
<https://www.phoenixcontact.com/us/products/2904631>

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PLC-INTERFACE for output functions, consisting of PLC-BSC.../ACT basic terminal block with screw connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 24 - 253 V AC/2.4 A

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2904631       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | C462          |
| Product key                          | DK6224        |
| GTIN                                 | 4046356867771 |
| Weight per piece (including packing) | 37.09 g       |
| Weight per piece (excluding packing) | 31.06 g       |
| Customs tariff number                | 85364190      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

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

Insulation characteristics: Air clearances and creepage distances between the power circuits

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

Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 15.04.2026 |
|------------------------------|------------|

### Electrical properties

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| Maximum power dissipation for nominal condition | 0.19 W                               |
| Test voltage (Input/output)                     | 2.5 kV (50 Hz, 1 min., input/output) |

Air clearances and creepage distances between the power circuits

|                          |          |
|--------------------------|----------|
| Rated insulation voltage | 260 V AC |
| Rated surge voltage      | 4 kV     |

### Input data

|                                                      |                             |
|------------------------------------------------------|-----------------------------|
| Rated actuating voltage $U_C$                        | 24 V DC                     |
| Voltage range with reference to $U_C$                | 0.8 ... 1.2                 |
| Rated actuating current $I_C$                        | 8 mA                        |
| Input voltage range                                  | 19.2 V DC ... 28.8 V DC     |
| "0" signal switching threshold in reference to $U_C$ | < 0.4                       |
| "1" signal switching threshold in reference to $U_C$ | > 0.8                       |
| Typical response time                                | 10 ms (at $U_C$ )           |
| Typical turn-off time                                | 10 ms (at $U_C$ )           |
| Status display                                       | LED (yellow)                |
| Protective circuit                                   | Reverse polarity protection |
|                                                      | Surge protection            |
| Surge voltage protection                             | > 33 V                      |
| Transmission frequency                               | 10 Hz                       |

### Output data

Output data

|                          |               |
|--------------------------|---------------|
| Contact switching type   | 1 N/O contact |
| Design of digital output | electronic    |
| Contact connection type  | Power contact |

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|                                                  |                                             |
|--------------------------------------------------|---------------------------------------------|
| Output voltage range                             | 24 V AC ... 253 V AC                        |
| Limiting continuous current                      | 2.4 A (see to derating)                     |
| Maximum inrush current                           | 250 A (20 ms)                               |
| Min. load current                                | 10 mA                                       |
| Leakage current                                  | < 3 mA                                      |
| Max. load value                                  | 340 A <sup>2</sup> s (tp = 10 ms, at 25 °C) |
| Surge voltage protection                         | > 275 V                                     |
| Voltage drop at max. limiting continuous current | < 1 V                                       |
| Output circuit                                   | 2-conductor, zero voltage switch            |
| Protective circuit                               | RCV circuit                                 |

## 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                | 0.45 Nm ... 0.55 Nm (Usually these terminal blocks must be supported during conductor connection (held by one hand, supported on the housing)) |

## 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

|                                         |                  |
|-----------------------------------------|------------------|
| Degree of protection                    | IP20             |
| 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              |

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## Standards and regulations

Air clearances and creepage distances between the power circuits

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

## Mounting

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

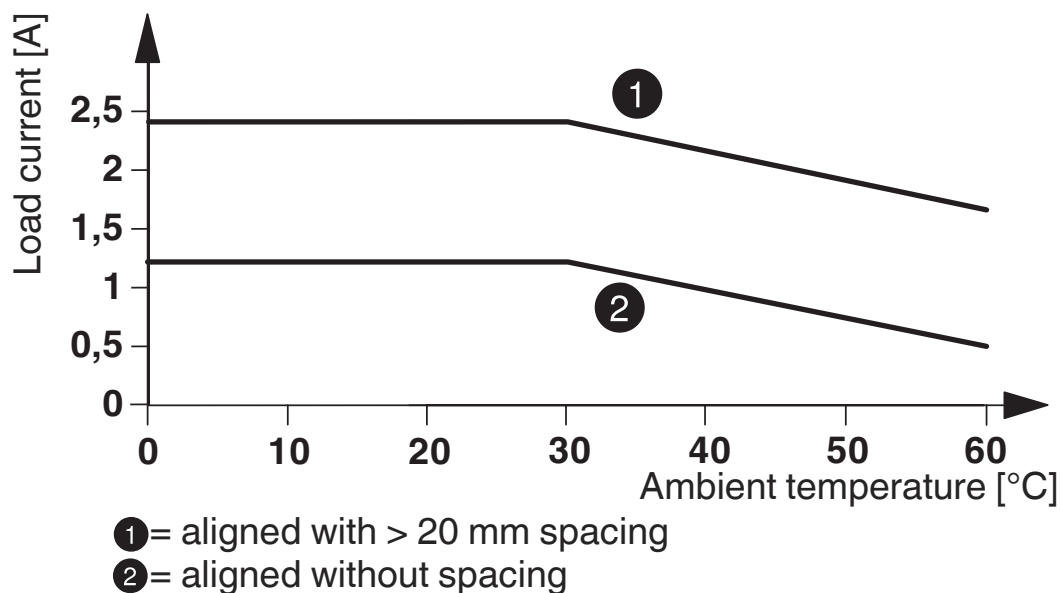
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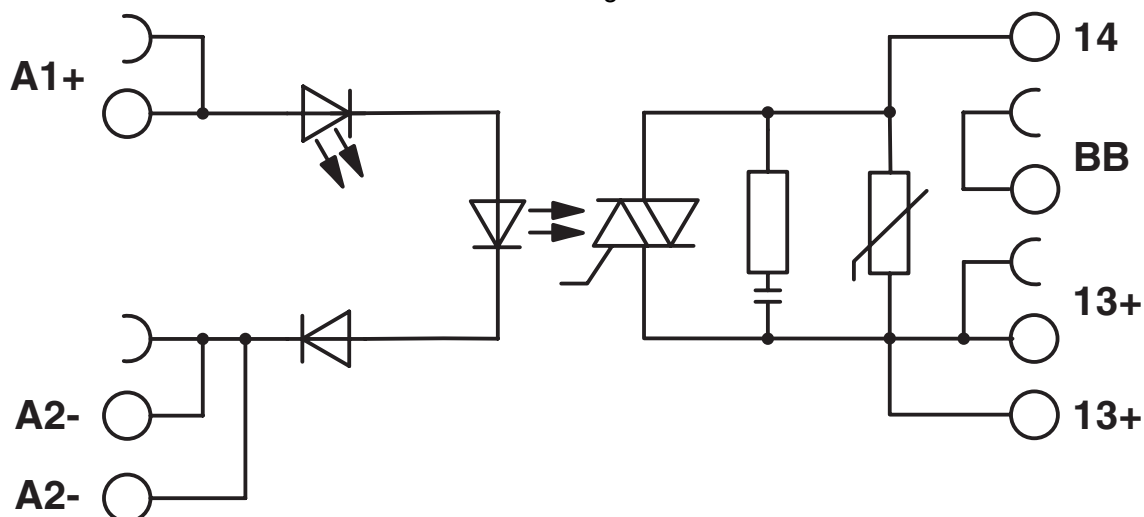
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## Drawings

Diagram



Circuit diagram



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## Approvals

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**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.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 9abc2b93-7e1d-435d-ac60-f99d7b7dfbde |

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 1.568 kg CO2e |
|---------|---------------|

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