

# PLC-OPT- 5DC/300DC/1 - Solid-state relay module



2900381

<https://www.phoenixcontact.com/gb/products/2900381>

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PLC-INTERFACE, integrated solid-state relay, with push-in connection, for mounting on NS 35/7,5 DIN rails, input: 5 V DC, output: 12 - 300 V DC/1 A

## Your advantages

- Wear-free switching with no contact bounce
- Resistant to vibrations and shocks
- Protective circuit in input and output
- Status indicator
- DC voltage outputs up to 300 V DC/1 A
- Option of bridging adjacent modules

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2900381       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | DK62A3        |
| Product key                          | DK62A3        |
| GTIN                                 | 4046356508841 |
| Weight per piece (including packing) | 31.85 g       |
| Weight per piece (excluding packing) | 28.7 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    | With integrated solid-state relay |
| 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 | 09.07.2026 |
|------------------------------|------------|

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Maximum power dissipation for nominal condition | 0.08 W |
|-------------------------------------------------|--------|

### Standards/regulations

|                          |        |
|--------------------------|--------|
| Rated insulation voltage | 300 V  |
| Rated surge voltage      | 2.5 kV |

### Input data

|                                                      |                                                        |
|------------------------------------------------------|--------------------------------------------------------|
| Nominal input voltage $U_N$                          | 5 V DC                                                 |
| Input voltage range in reference to $U_N$            | 0.8 ... 1.2                                            |
| Input voltage range                                  | 4 V DC ... 6 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 $U_N$                       | 15 mA                                                  |
| Typical response time                                | 0.8 ms                                                 |
| Typical turn-off time                                | 1.5 ms                                                 |
| Operating voltage display                            | Yellow LED                                             |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode |
|                                                      | Surge protection; Varistor                             |
| Transmission frequency                               | 50 Hz                                                  |

### Output data

#### Output data

|                          |                                                                                                                                                                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact switching type   | 1 N/O contact                                                                                                                                                                                                                                 |
| Design of digital output | electronic                                                                                                                                                                                                                                    |
| Output voltage range     | 12 V DC ... 300 V DC (Divider plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal points in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...) |

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|                                                  |                                                                                      |
|--------------------------------------------------|--------------------------------------------------------------------------------------|
| Limiting continuous current                      | 1 A (see derating curve)                                                             |
| Voltage drop at max. limiting continuous current | < 500 mV                                                                             |
| Protective circuit                               | Reverse polarity protection; Polarity protection diode<br>Surge protection; Varistor |

## Connection data

|                                  |                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------|
| Connection method                | Push-in connection                                                                                  |
| Stripping length                 | 10 mm                                                                                               |
| Conductor cross-section rigid    | 0.14 mm² ... 2.5 mm²                                                                                |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm²<br>0.2 mm² ... 2.5 mm² (Single ferrule)<br>2x 0.5 mm² ... 1 mm² (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) | -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<br>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

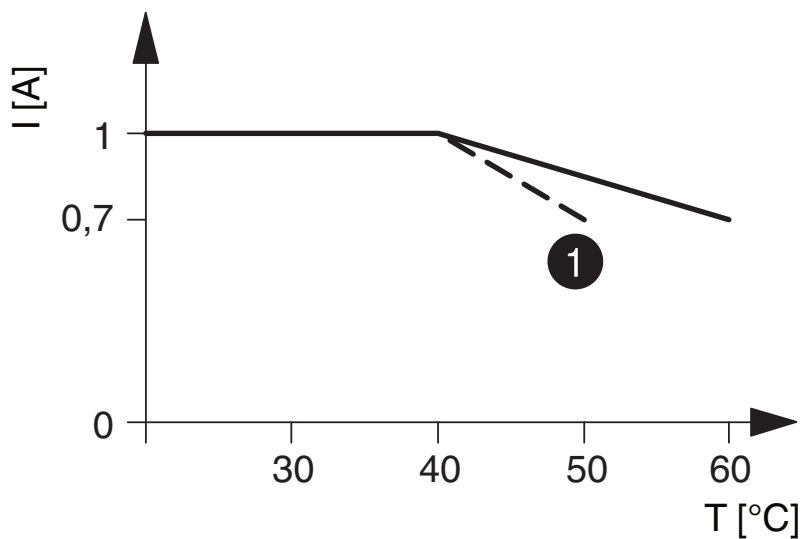
|                       |               |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

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

## Drawings

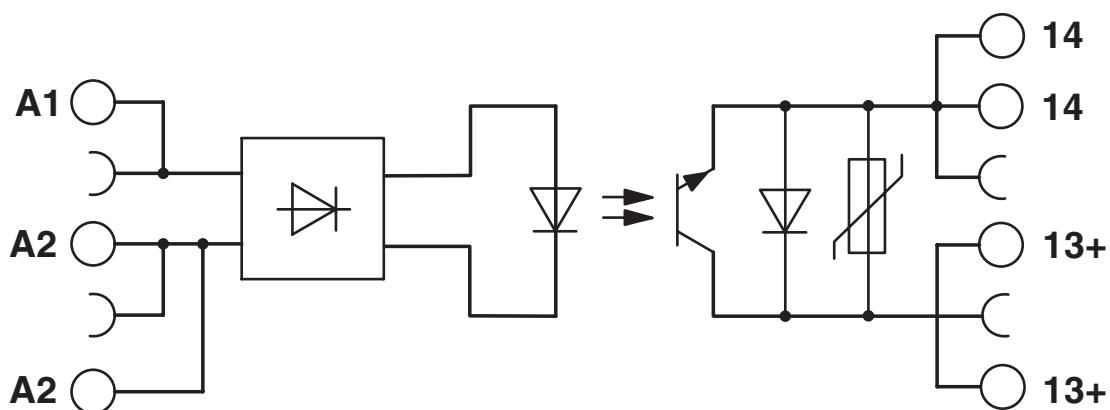
Diagram



### ① Input voltages 220 V DC/230 V AC

The figure shows the derating curve for PLC-...300DC/1

Circuit diagram



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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2900381>



**cULus Listed**

Approval ID: E140324



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Approval ID: E140324

**DNV**

Approval ID: TAE0000196

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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                                | 103750f5-b749-4ba7-8a83-d6cc78017165 |

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 1.637 kg CO2e |
|---------|---------------|

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