

2900338

https://www.phoenixcontact.com/us/products/2900338

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PLC-INTERFACE, consisting of PLC-BPT.../21-21 basic terminal block with Push-in connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 2 changeover contacts, input voltage 24 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
- · Functional plug-in bridges
- · Integrated input circuit and interference suppression circuit

#### Commercial data

| Item number                          | 2900338             |
|--------------------------------------|---------------------|
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C462                |
| Product key                          | CK62B9              |
| Catalog page                         | Page 367 (C-5-2019) |
| GTIN                                 | 4046356507356       |
| Weight per piece (including packing) | 70.9 g              |
| Weight per piece (excluding packing) | 58.7 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 | 3x 10 <sup>7</sup> cycles |

#### Data management status

| Date of last data management | 01.07.2024 |
|------------------------------|------------|
| Article revision             | 08         |

#### Insulation characteristics

| Insulation           | Basic insulation |
|----------------------|------------------|
| Overvoltage category | III              |
| Pollution degree     | 3                |

## Electrical properties

| Maximum power dissipation for nominal condition | 0.43 W |
|---|--------|
| Rated surge voltage                             | 6 kV   |

### Input data

#### Coil side

| Nominal input voltage U <sub>N</sub>                 | 24 V DC  |
|--|--|
| Input voltage range                                  | 20.2 V DC 33.6 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 <sub>N</sub>              | 18 mA  |
| Typical response time                                | 8 ms   |
| Typical release time                                 | 10 ms  |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode |
|  | Surge protection; Freewheeling diode                   |
| Operating voltage display                            | Yellow LED   |

### Output data

#### Switching

| Contact switching type    | 2 changeover contacts  |
|---------------------------|------------------------|
| Type of switch contact    | Single contact         |
| Contact material          | AgNi, hard gold-plated |
| Maximum switching voltage | 30 V AC                |
|                           | 36 V DC                |



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| Minimum switching voltage             | 100 mV (10 mA)     |
|---------------------------------------|--------------------|
| Limiting continuous current           | 50 mA              |
| Maximum inrush current                | 50 mA              |
| Min. switching current                | 1 mA (24 V)        |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC) |

### Switching: when the gold layer is destroyed

| Note                                  | the following values are applicable if a gold layer is destroyed |
|---------------------------------------|--|
| Maximum switching voltage             | 250 V AC/DC  |
| Minimum switching voltage             | 5 V AC/DC  |
| Limiting continuous current           | 6 A  |
| Maximum inrush current                | 15 A (300 ms)  |
| Min. switching current                | 10 mA  |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC)   |
|                                       | 85 W (at 48 V DC)  |
|                                       | 60 W (at 60 V DC)  |
|                                       | 44 W (at 110 V DC)   |
|                                       | 60 W (at 220 V DC)   |
|                                       | 1500 VA (for 250 V AC)   |
| Switching capacity                    | 2 A (at 24 V, DC13)  |
|                                       | 0.2 A (at 110 V, DC13)   |
|                                       | 0.2 A (at 250 V, DC13)   |
|                                       | 2 A (at 24 V, AC15)  |
|                                       | 2 A (at 120 V, AC15)   |
|                                       | 2 A (at 250 V, AC15)   |

### 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   |
|                                  | 0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup> (Single ferrule) |
|                                  | 2x 0.5 mm² 1 mm² (TWIN ferrule)                          |
| Conductor cross section AWG      | 26 14  |

#### **Dimensions**

| Width  | 14 mm |
|--------|-------|
| Height | 80 mm |
| Depth  | 94 mm |

### Material specifications

| Color                                  | gray (RAL 7042) |
|--|-----------------|
| Flammability rating according to UL 94 | V0 (Housing)    |



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#### Environmental and real-life conditions

| Degree of protection (Relay)            | RT III (Relay)    |
|---|-------------------|
| Degree of protection (Relay base)       | IP20 (Relay base) |
| Ambient temperature (operation)         | -40 °C 60 °C      |
| Ambient temperature (storage/transport) | -40 °C 85 °C      |

### Approvals

Certificate

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

| UKCA                  |                |
|-----------------------|----------------|
| UNCA                  |                |
| Certificate           | UKCA-compliant |
|                       |                |
| Shipbuilding approval |                |
| Certificate           | TAE0000196     |

CE-compliant

### Corrosive gas test

| 3              |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

#### DNV GL data

| Temperature | D   |
|-------------|---|
| Humidity    | A   |
| Vibration   | B/C   |
| EMC         | В   |
| 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 | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

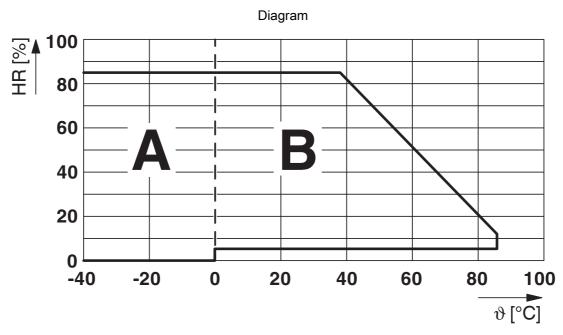
| Mounting type     | DIN rail mounting         |
|-------------------|---------------------------|
| Thread type       | ()                        |
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |



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## **Drawings**



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 ≤ 0°C must be prevented

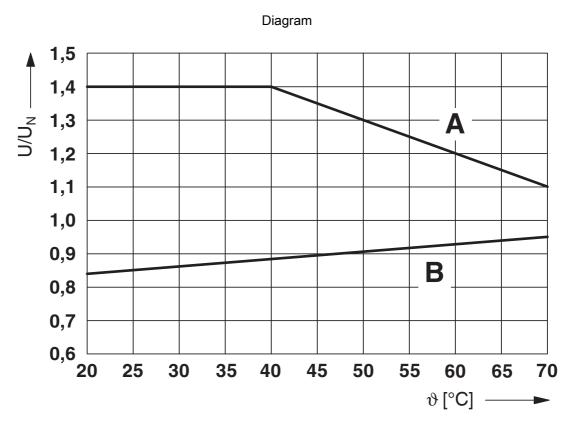
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature ≤ 25°C.

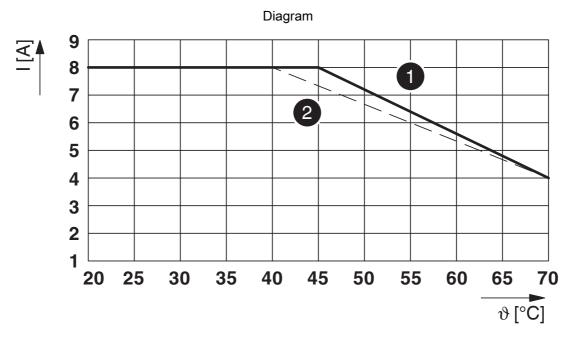


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Curve A Maximum permissible continuous voltage  $U_{max}$  with limiting continuous current on the contact side (see relevant technical data) Curve B Minimum permissible operate voltage  $U_{op}$  after pre-excitation (see relevant technical data)



### Limiting continuous current per contact for 0.85 ... 1.1 U<sub>N</sub> (contact-side)

- (1) Limiting continuous current for horizontal installation position without clearance
- (2) Limiting continuous current for vertical installation position without clearance



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## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2900338



**cUL Recognized**Approval ID: E238705



**UL Recognized**Approval ID: E238705



**EAC** 

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



**DNV GL** 

Approval ID: TAE0000196



**UL Listed** 

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140



**cULus Listed** 

Approval ID: E140324

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## Classifications

UNSPSC 21.0

#### **ECLASS**

| ECLASS-11.0 | 2737 | 601  |
|-------------|------|------|
| ECLASS-12.0 | 2737 | 601  |
| ECLASS-13.0 | 2737 | 601  |
| ETIM        |      |      |
| ETIM 9.0    | EC00 | 1437 |
| UNSPSC      |      |      |

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## Environmental product compliance

#### EU RoHS

| Fulfills EU RoHS substance requirements | Yes   |
|---|---|
| Exemption                               | 7(a), 7(c)-l  |
| 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                                    | 2eaf7f6c-4b25-4039-8e33-7fd39a12d1f8  |
| SCIP EF3.0 Climate Change               | 2eaf7f6c-4b25-4039-8e33-7fd39a12d1f8  |

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