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PLC-INTERFACE, consisting of PLC-BPT.../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, 1 PDT, input voltage 60 V DC

#### **Product Features**

- Slim design
- Efficient connection to system cabling using V8 adapter
- Safe isolation according to DIN EN 50178 between coil and contact
- RT III sealed relay
- Functional plug-in bridges
- Integrated input circuit and interference suppression circuit



## **Key Commercial Data**

| Packing unit                         | 1 pc     |
|--------------------------------------|----------|
| Weight per Piece (excluding packing) | 32.6 g   |
| Custom tariff number                 | 85364190 |
| Country of origin                    | Germany  |

### Technical data

#### Note

| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

#### **Dimensions**

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

## Ambient conditions



## Technical data

#### Ambient conditions

| Ambient temperature (operation)         | -40 °C 60 °C |
|---|--------------|
| Ambient temperature (storage/transport) | -40 °C 85 °C |

### Coil side

| Nominal input voltage U <sub>N</sub>    | 60 V DC  |
|---|--|
| Typical input current at U <sub>N</sub> | 4.8 mA   |
| Typical response time                   | 5 ms   |
| Typical release time                    | 8 ms   |
| Protective circuit                      | Protection against polarity reversal Polarity protection diode |
|   | Free-wheeling diode Damping diode                              |
| Operating voltage display               | Yellow LED   |
| Power dissipation for nominal condition | 0.29 W   |

### Contact side

| Contact type   | 1 PDT  |
|--|--|
| Contact material                                       | AgSnO, hard gold-plated  |
| Maximum switching voltage                              | 30 V AC  |
|  | 36 V DC  |
| Minimum switching voltage                              | 100 mV (at 10 mA)  |
| Min. switching current                                 | 1 mA (at 24 V)   |
| Maximum inrush current                                 | 50 mA  |
| Limiting continuous current                            | 50 mA  |
| Interrupting rating (ohmic load) max.                  | 1.2 W (at 24 V DC)   |
| Note   | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage                              | 250 V AC/DC  |
| Minimum switching voltage                              | 5 V (at 100 mA)  |
| Limiting continuous current                            | 6 A  |
| Min. switching current                                 | 10 mA (at 12 V)  |
| Interrupting rating (ohmic load) max.                  | 140 W (at 24 V DC)   |
|  | 20 W (at 48 V DC)  |
|  | 18 W (at 60 V DC)  |
|  | 23 W (at 110 V DC)   |
|  | 40 W (at 220 V DC)   |
|  | 1500 VA (for 250 V AC)   |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)  |
|  | 0.2 A (at 110 V, DC13)   |
|  | 0.1 A (at 220 V, DC13)   |
|  | 3 A (at 24 V, AC15)  |



## Technical data

#### Contact side

| 3 A (at 120 V, AC15) |
|----------------------|
| 3 A (at 230 V, AC15) |

### Connection data input side

| Connection name                  | Coil side          |
|----------------------------------|--------------------|
| Connection method                | Push-in connection |
| Stripping length                 | 8 mm               |
| Conductor cross section solid    | 0.14 mm² 2.5 mm²   |
| Conductor cross section flexible | 0.14 mm² 2.5 mm²   |
| Conductor cross section AWG      | 26 14              |

## Connection data output side

| Connection name                  | Contact side       |
|----------------------------------|--------------------|
| Connection method                | Push-in connection |
| Stripping length                 | 8 mm               |
| Conductor cross section solid    | 0.14 mm² 2.5 mm²   |
| Conductor cross section flexible | 0.14 mm² 2.5 mm²   |
| Conductor cross section AWG      | 26 14              |

### General

| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)                       |
|--|---|
| Operating mode                           | 100% operating factor                         |
| Degree of protection                     | RT III (Relay)                                |
| Mechanical service life                  | 2 x 10 <sup>7</sup> cycles                    |
| Flammability rating according to UL 94   | V0  |
| Designation                              | Standards/regulations                         |
| Standards/regulations                    | IEC 60664                                     |
|  | IEC 60664A                                    |
|  | DIN VDE 0110                                  |
|  | DIN EN 50178/DIN VDE 0160 (in relevant parts) |
|  | DIN EN 50178/VDE 0160                         |
|  | IEC 60255/DIN VDE 0435 (in relevant parts)    |
| Degree of pollution                      | 3   |
| Overvoltage category                     | III   |
| Mounting position                        | any   |
| Assembly instructions                    | In rows with zero spacing                     |

## Standards and Regulations

| _ |                                  |     |
|---|----------------------------------|-----|
| ſ | Connection in acc. with standard | CUL |



## Technical data

### Standards and Regulations

| Designation                            | Standards/regulations                         |
|--|---|
| Standards/regulations                  | IEC 60664                                     |
|  | IEC 60664A                                    |
|  | DIN VDE 0110                                  |
|  | DIN EN 50178/DIN VDE 0160 (in relevant parts) |
|  | DIN EN 50178/VDE 0160                         |
|  | IEC 60255/DIN VDE 0435 (in relevant parts)    |
| Degree of pollution                    | 3   |
| Overvoltage category                   | III   |
| Flammability rating according to UL 94 | V0  |

### Articles in set

Relay socket - PLC-BPT- 60DC/21 - 2900279



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 60 V DC

Single relay - REL-MR- 60DC/21AU - 2961134



Plug-in miniature power relay, with multi-layer gold contact, 1 PDT, input voltage 60 V DC

## Classifications

### eCl@ss

| eCl@ss 4.0 | 27371001 |
|------------|----------|
| eCl@ss 4.1 | 27371001 |
| eCl@ss 5.0 | 27371001 |
| eCl@ss 5.1 | 27371001 |
| eCl@ss 6.0 | 27371001 |
| eCl@ss 7.0 | 27371001 |
| eCl@ss 8.0 | 27371601 |



## Classifications

| - 01 | <u> </u> |
|------|----------|
| eClo | ass      |

| eCl@ss        |          |  |
|---------------|----------|--|
| eCl@ss 9.0    | 27371601 |  |
| ETIM          |          |  |
| ETIM 3.0      | EC000196 |  |
| ETIM 4.0      | EC000196 |  |
| ETIM 5.0      | EC001437 |  |
| UNSPSC        |          |  |
| UNSPSC 6.01   | 30211916 |  |
| UNSPSC 7.0901 | 39121515 |  |
| UNSPSC 11     | 39121515 |  |

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## Approvals

UNSPSC 12.01

UNSPSC 13.2

### Approvals

Approvals

Ex Approvals

Approvals submitted

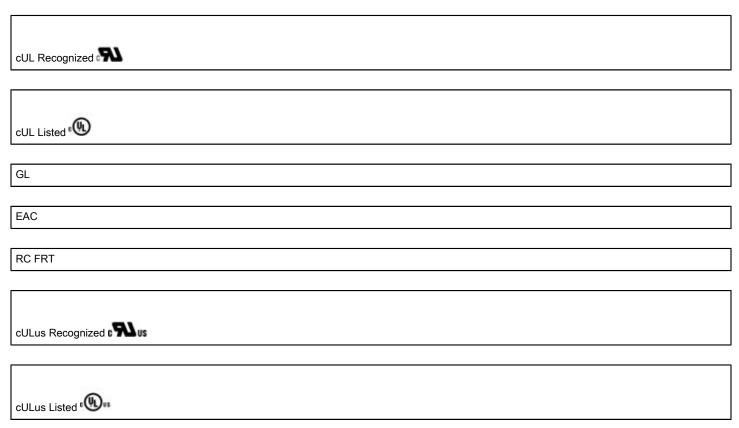
### Approval details

UL Recognized **511** 



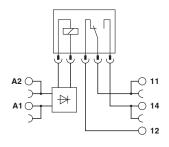


## Approvals

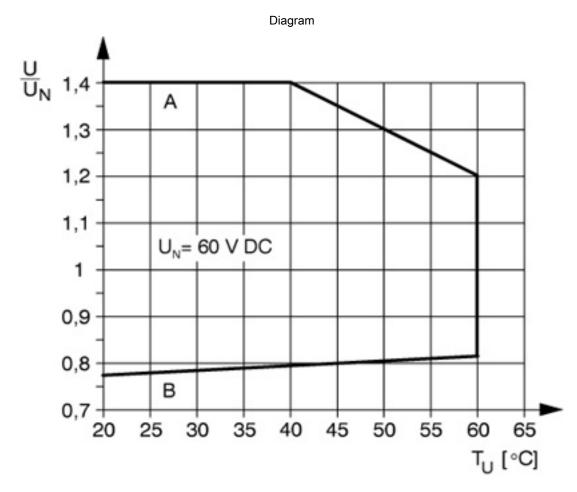


## **Drawings**

## Circuit diagram







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)

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