

# PLC-BPT-TTL/1 - Relay base

2900458

<https://www.phoenixcontact.com/us/products/2900458>



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6.2 mm PLC basic terminal block for TTL signal with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage TTL (5 V DC)

## Your advantages

- 6.2 mm narrow design width
- Screw and spring-cage connection
- RT III protection
- Safe isolation in accordance with EN 50178 (VDE 0160)
- Status indicator
- 4 kV<sub>rms</sub> electrical isolation between coil and contact
- Bridging options

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2900458       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | C461          |
| Product key                          | DK62A1        |
| GTIN                                 | 4046356507783 |
| Weight per piece (including packing) | 27.19 g       |
| Weight per piece (excluding packing) | 27.19 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | DE            |

## Technical data

### Notes

#### Utilization restriction

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

### Product properties

|                |                       |
|----------------|-----------------------|
| Product type   | Relay socket          |
| Product family | PLC-INTERFACE         |
| Application    | TTL signal at input   |
| Operating mode | 100% operating factor |

### Input data

|                             |  |
|-----------------------------|--|
| Nominal input voltage $U_N$ | 5 V DC (TTL)   |
|                             | The nominal voltage of the plug-on electromechanical relay or solid-state relay (see necessary accessories) deviates from the nominal input voltage of the base with integrated upstream circuit |
|                             | 5 V DC (TTL)   |
|                             | The nominal voltage of the plug-on electromechanical relay or solid-state relay (see necessary accessories) deviates from the nominal input voltage of the base with integrated upstream circuit |

### Relay assembly

|  |                             |
|--|-----------------------------|
| Rated control circuit supply voltage $U_S$ | 5 V DC                      |
| Voltage range with reference to $U_S$      | 0.9 ... 1.2                 |
| Rated control supply current $I_S$         | 41 mA                       |
| Rated actuating voltage $U_C$              | 5 V DC (TTL)                |
| Voltage range with reference to $U_C$      | 0.9 ... 1.2                 |
| Rated actuating current $I_C$              | 2.5 mA                      |
| Typical response time                      | 4.5 ms                      |
| Typical release time                       | 3.5 ms                      |
| Operating voltage display                  | Yellow LED                  |
| Protective circuit                         | Reverse polarity protection |
|  | Surge protection            |
| Surge voltage protection                   | > 6.5 V                     |

### Optocoupler assembly

|   |              |
|---|--------------|
| Rated control circuit supply voltage $U_S$  | 5 V DC       |
| Voltage range with reference to $U_S$       | 0.9 ... 1.2  |
| Rated control supply current $I_S$          | 11.5 mA      |
| Rated actuating voltage $U_C$               | 5 V DC (TTL) |
| Rated actuating current $I_C$               | 2.5 mA       |
| Switching level 1 signal ("H") (TTL signal) | > 2 V DC     |
| Switching level 0 signal ("L") (TTL signal) | < 0.8 V DC   |

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|                           |                             |
|---------------------------|-----------------------------|
| Typical response time     | 35 µs                       |
| Typical release time      | 320 µs                      |
| Operating voltage display | Yellow LED                  |
| Protective circuit        | Reverse polarity protection |
|                           | Surge protection            |
| Transmission frequency    | 1000 Hz                     |
| Surge voltage protection  | > 6.5 V                     |

## Output data

|  |                             |
|--|-----------------------------|
| Maximum switching voltage                        | 48 V DC                     |
| Minimum switching voltage                        | 3 V DC                      |
| Limiting continuous current                      | 100 mA                      |
| Voltage drop at max. limiting continuous current | < 1 V                       |
| Output circuit                                   | 2-conductor, floating       |
| Protective circuit                               | Reverse polarity protection |
|  | Surge protection            |
| Maximum switching voltage                        | 33 V DC                     |
| Minimum switching voltage                        | 3 V DC                      |
| Limiting continuous current                      | 3 A                         |
| Voltage drop at max. limiting continuous current | < 200 mV                    |
| Maximum inrush current                           | 15 A (10 ms)                |
| Output circuit                                   | 2-conductor, floating       |
| Protective circuit                               | Reverse polarity protection |
|  | Surge protection            |

## Connection data

|                                  |  |
|----------------------------------|--|
| Connection method                | Push-in connection   |
| Stripping length                 | 10 mm  |
| 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 mm <sup>2</sup> (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)    |

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## Environmental and real-life conditions

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -20 °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              |

## Standards and regulations

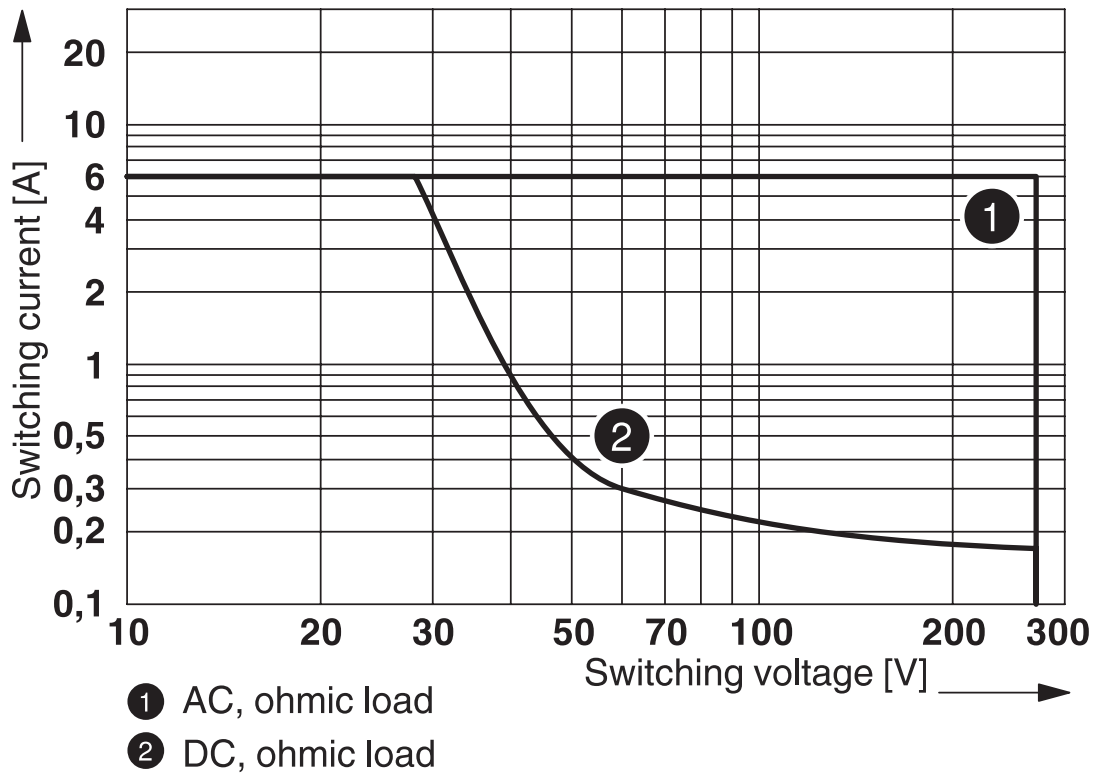
|                       |                |
|-----------------------|----------------|
| Standards/regulations | IEC/EN 60664-1 |
|-----------------------|----------------|

## Mounting

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

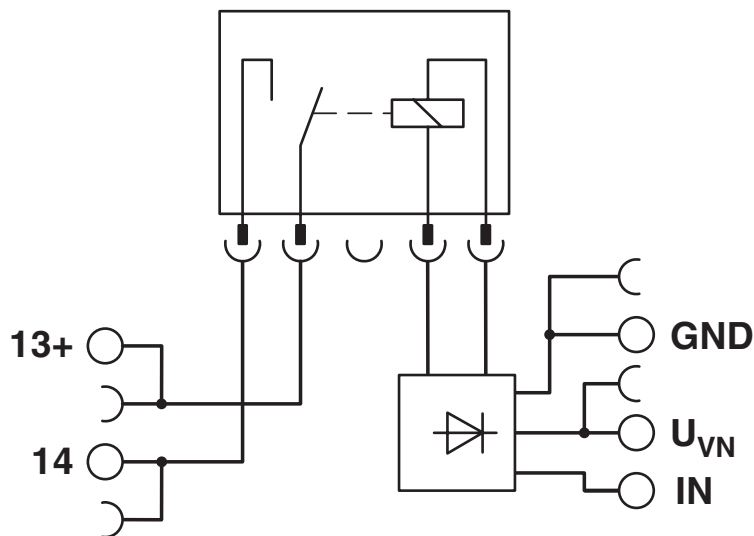
## Drawings

Diagram



Max. interrupting rating

Circuit diagram



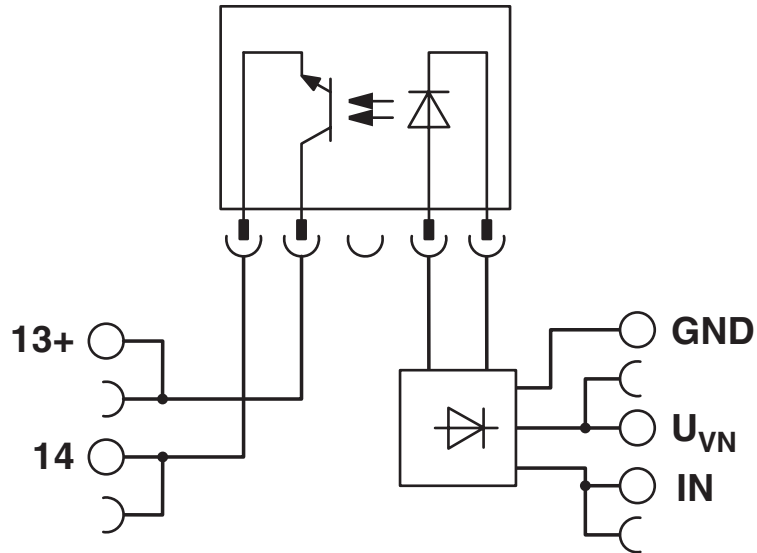
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Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2900458>



**cUL Recognized**  
Approval ID: E238705



**UL Recognized**  
Approval ID: E238705



**EAC**  
Approval ID: RU D-DE.B\*00573/18

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371603 |
| ECLASS-15.0 | 27371603 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001456 |
|-----------|----------|

### 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                                | 8ef2651d-ef2d-437b-a31b-7f216f6840fa |

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 0.909 kg CO2e |
|---------|---------------|

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