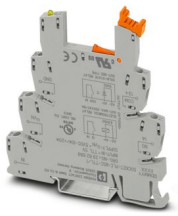
# PLC-BSC-TTL/1 - Relay base

2982689

https://www.phoenixcontact.com/gb/products/2982689

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6.2 mm PLC basic terminal block for TTL signal with screw 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)
- 4 kV<sub>rms</sub> electrical isolation between coil and contact
- Status indicator
- Bridging options

## Commercial data

| | |
|---|---|
| Item number | 2982689 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | DK6221 |
| Product key | DK6221 |
| GTIN | 4046356155212 |
| Weight per piece (including packing) | 30.94 g |
| Weight per piece (excluding packing) | 30 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 |

| | |
|---|---|
| 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 | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross-section rigid | 0.14 mm² ... 2.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² (Single ferrule) |
| | 2x 0.5 mm² ... 1.5 mm² (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

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

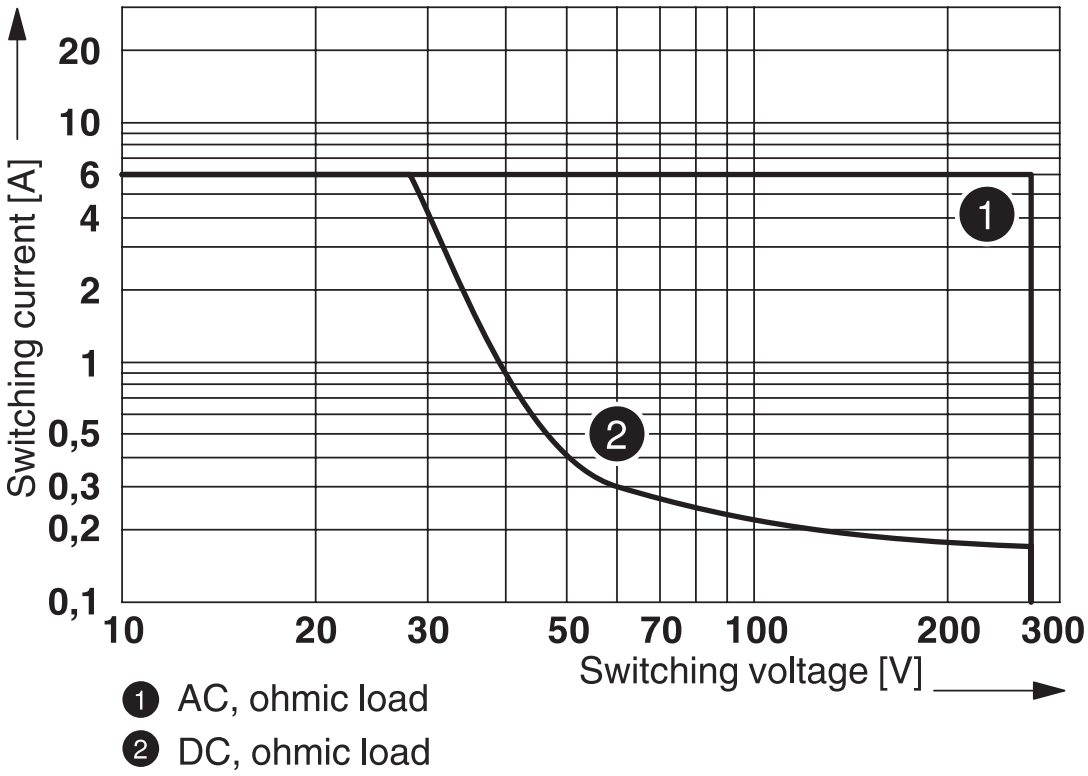
| | |
|---|---|
| Standards/regulations | IEC/EN 60664-1 |

## Mounting

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

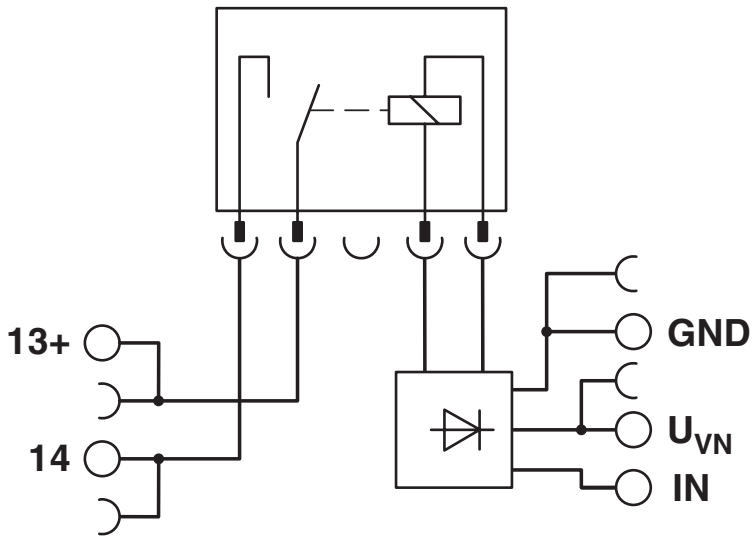
## Drawings

Diagram

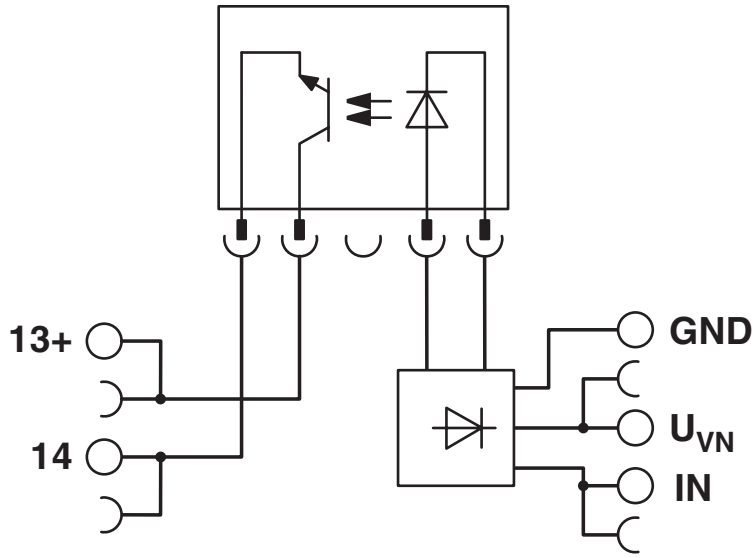



Max. interrupting rating

Circuit diagram



Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2982689

**cUL Recognized**
Approval ID: E238705

**UL Recognized**
Approval ID: E238705

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

**UL Listed**
Approval ID: FILE E 172140

**cUL Listed**
Approval ID: FILE E 172140

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39122300 |

## 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 | 9389f072-1be7-4b04-963d-0e3b01028b42 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 1.062 kg CO2e |


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