# PTTB 2,5-DIO/O-U - Component terminal block

3210923

https://www.phoenixcontact.com/gb/products/3210923

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Component terminal block, with integrated 1N4007 diode, nominal current: 0.5 A, number of connections: 4, connection method: Push-in connection, Rated cross section: 2.5 mm$^2$, 1st and 2nd level, cross section: 0.14 mm$^2$ - 4 mm$^2$, mounting type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The compact design and front connection enable wiring in a confined space<br/>

## Commercial data

| | |
|---|---|
| Item number | 3210923 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE2272 |
| Product key | BE2272 |
| GTIN | 4046356419024 |
| Weight per piece (including packing) | 11.24 g |
| Weight per piece (excluding packing) | 10.375 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

# Technical data

## Notes

| | |
|---|---|
| General | The max. current is determined by the diode. Installed: Diode 1N 4007, reverse voltage: 1300 V, maximum continuous current: 0.5 A. |

## Product properties

| | |
|---|---|
| Product type | Component terminal block |
| Number of connections | 4 |
| Number of rows | 2 |

### Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Degree of pollution | 3 |

## Electrical properties

| | |
|---|---|
| Rated insulation voltage | 500 V |
| Rated surge voltage | 6 kV |

## Connection data

| | |
|---|---|
| Number of connections per level | 2 |
| Nominal cross section | 2.5 mm² |

### 1st and 2nd level

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| | B3 |
| Connection in acc. with standard | IEC 60947-7-1 (in compliance) |
| Conductor cross-section rigid | 0.14 mm² ... 4 mm² |
| Cross section AWG | 26 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm² ... 4 mm² |
| Conductor cross-section, flexible [AWG] | 26 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm² ... 2.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm² ... 2.5 mm² |
| Nominal cross section | 2.5 mm² |
| Nominal current | 0.5 A |
| Maximum load current | 0.5 A |
| Component type | Diode 1N4007 |
| Reverse voltage | 1300 V |

### 1st and 2nd level Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross-section rigid | 0.34 mm² ... 4 mm² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm² ... 2.5 mm² |

| | |
|---|---|
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm² ... 2.5 mm² |

## Dimensions

| | |
|---|---|
| Width | 5.2 mm |
| End cover width | 2.2 mm |
| Height | 68 mm |
| Depth | 45.8 mm |
| Depth on NS 35/7,5 | 47.5 mm |
| Depth on NS 35/15 | 55 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I |
| Insulating material | PA |
| Static insulating material application in cold | -60 °C |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 |
| Surface flammability NFPA 130 (ASTM E 162) | passed |
| Specific optical density of smoke NFPA 130 (ASTM E 662) | passed |
| Smoke gas toxicity NFPA 130 (SMP 800C) | passed |

## Electrical tests

Surge voltage test

| | |
|---|---|
| Result | Test passed |

Power-frequency withstand voltage

| | |
|---|---|
| Test voltage setpoint | 1.89 kV |
| Result | Test passed |

## Mechanical properties

Mechanical data

| | |
|---|---|
| Open side panel | Yes |

## Mechanical tests

Attachment on the carrier

| | |
|---|---|
| DIN rail/fixing support | NS 35 |
| Result | Test passed |

## Environmental and real-life conditions

Oscillation/broadband noise

| | |
|---|---|
| Specification | DIN EN 50155 (VDE 0115-200):2022-06 |
| Spectrum | Long life test category 2, bogie-mounted |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 250 Hz |
| ASD level | 6.12 (m/s²)²/Hz |
| Acceleration | 30.6 m/s² |
| Test duration per axis | 5 h |
| Test directions | X-, Y- and Z-axis |
| Result | Test passed |

Shocks

| | |
|---|---|
| Pulse shape | Half-sine |
| Acceleration | 300 m/s² |
| Shock duration | 18 ms |
| Number of shocks per direction | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
| Result | Test passed |

Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly) | -5 °C ... 70 °C |
| Ambient temperature (actuation) | -5 °C ... 70 °C |
| Permissible humidity (operation) | 20 % ... 90 % |
| Permissible humidity (storage/transport) | 30 % ... 70 % |

## Standards and regulations

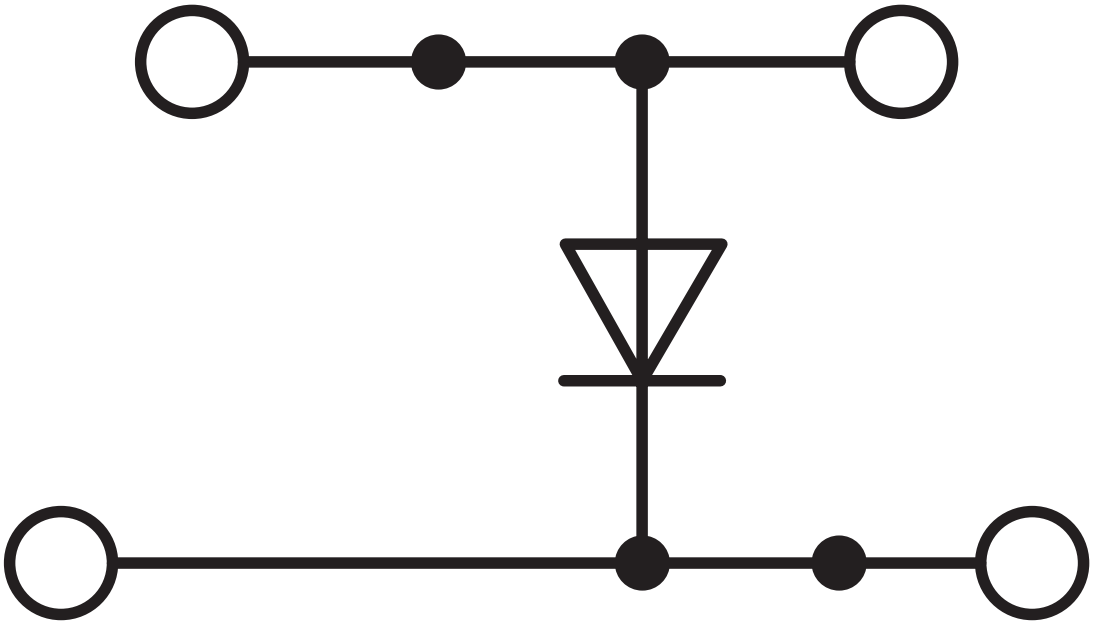
| | |
|---|---|
| Connection in acc. with standard | IEC 60947-7-1 (in compliance) |

## Mounting

| | |
|---|---|
| Mounting type | NS 35/7,5 |
| | NS 35/15 |

## Drawings

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/3210923

**CSA**
Approval ID: 158887

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| Current determined by the diode | 300 V | 0.5 A | 26 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| Current determined by the diode | 300 V | 0.5 A | 26 - 12 | - |

**EAC**
Approval ID: RU C-DE.BL08.B.00644

**cULus Recognized**
Approval ID: E60425

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| Current determined by the diode | 300 V | 0.5 A | 26 - 12 | - |
| C | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| Current determined by the diode | 300 V | 0.5 A | 26 - 12 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27250114 |
| ECLASS-15.0 | 27250114 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC000898 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a) |

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 | 4da76da3-d0e6-48aa-8bc2-557c64106c9b |

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