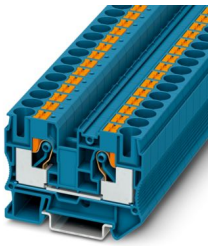
# PT 10 BU - Feed-through terminal block

3212123

https://www.phoenixcontact.com/us/products/3212123

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 57 A, number of connections: 2, connection method: Push-in connection, Rated cross section: 10 $mm^2$, cross section: 0.5 $mm^2$ - 16 $mm^2$, mounting type: NS 35/7,5, NS 35/15, color: blue

## Your advantages

- Time-saving conductor connection thanks to tool-free direct-connection technology
- Convenient plugging with lower insertion force
- High conductor pull-out forces due to the spring design
- Vibration-resistant and maintenance-free conductor connection
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories
- Optimized for manual and automated wiring

## Commercial data

| | |
|---|---|
| Item number | 3212123 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE22 |
| Product key | BE2211 |
| GTIN | 4046356494809 |
| Weight per piece (including packing) | 27.22 g |
| Weight per piece (excluding packing) | 26.16 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |



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# Technical data

## Product properties

| | |
|---|---|
| Product type | Feed-through terminal block |
| Product family | PT |
| Area of application | Railway industry |
| | Machine building |
| | Plant engineering |
| Number of connections | 2 |
| Number of rows | 1 |
| Potentials | 1 |

### Insulation characteristics

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

## Electrical properties

| | |
|---|---|
| Rated surge voltage | 8 kV |
| Maximum power dissipation for nominal condition | 1.82 W |

## Connection data

| | |
|---|---|
| Number of connections per level | 2 |
| Nominal cross section | 10 mm² |
| Connection method | Push-in connection |
| Stripping length | 18 mm ... 20 mm |
| Internal cylindrical gage | A6 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.5 mm² ... 16 mm² |
| Cross section AWG | 20 ... 6 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.5 mm² ... 16 mm² |
| Conductor cross-section, flexible [AWG] | 20 ... 6 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.5 mm² ... 10 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.5 mm² ... 10 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 1.5 mm² ... 4 mm² |
| Nominal current | 57 A |
| Maximum load current | 70 A (with a 16 mm² conductor cross-section, rigid) |
| Nominal voltage | 1000 V |
| Nominal cross section | 10 mm² |

### Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross-section rigid | 1 mm² ... 16 mm² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 4 mm² ... 10 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 2.5 mm² ... 10 mm² |



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## Ex data

Rated data (ATEX/IECEx)

| | |
|---|---|
| Identification | II 2 GD Ex eb IIC Gb |
| Operating temperature range (1) | -60 °C ... 85 °C |
| Operating temperature range (2) | -40 °C ... 110 °C |
| Ex-certified accessories | 3212057 D-PT 10 |
| | 1204517 SZF 1-0,6X3,5 |
| | 3022276 CLIPFIX 35-5 |
| | 3022218 CLIPFIX 35 |
| List of bridges | Plug-in bridge / FBS 2-10 / 3005947 |
| | Plug-in bridge / FBS 5-10 / 3005948 |
| Bridge data | 48 A (10 mm²) |
| Ex temperature increase | 40 K (52.5 A / 10 mm²) |
| for bridging with bridge | 550 V |
| Rated insulation voltage | 500 V |
| output | (Permanent) |

Ex level General

| | |
|---|---|
| Rated voltage | 550 V |
| Rated current | 52.5 A |
| Maximum load current | 61.5 A |
| Contact resistance | 0.43 mΩ |

Ex connection data General

| | |
|---|---|
| Nominal cross section | 10 mm² |
| Rated cross section AWG | 8 |
| Connection capacity rigid | 0.5 mm² ... 16 mm² |
| Connection capacity AWG | 20 ... 6 |
| Connection capacity flexible | 0.5 mm² ... 10 mm² |
| Connection capacity AWG | 20 ... 8 |

## Dimensions

| | |
|---|---|
| Width | 10.2 mm |
| End cover width | 2.2 mm |
| Height | 67.7 mm |
| Depth | 49.5 mm |
| Depth on NS 35/7,5 | 50.5 mm |
| Depth on NS 35/15 | 58 mm |

## Material specifications

| | |
|---|---|
| Color | blue (RAL 5015) |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I |
| Insulating material | PA |



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

| | |
|---|---|
| Test voltage setpoint | 9.8 kV |
| Result | Test passed |

### Temperature-rise test

| | |
|---|---|
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |
| Result | Test passed |
| Short-time withstand current 10 mm² | 1.2 kA |
| Short-time withstand current 16 mm² | 1.92 kA |
| Result | Test passed |

### Power-frequency withstand voltage

| | |
|---|---|
| Test voltage setpoint | 2.2 kV |
| Result | Test passed |

## Mechanical properties

### Mechanical data

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

## Mechanical tests

### Mechanical strength

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

### Attachment on the carrier

| | |
|---|---|
| DIN rail/fixing support | NS 35 |
| Test force setpoint | 5 N |
| Result | Test passed |

### Test for conductor damage and slackening

| | |
|---|---|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 0.5 mm² / 0.3 kg |
| | 10 mm² / 2 kg |
| | 16 mm² / 2.9 kg |



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

## Environmental and real-life conditions

### Service life

| | |
|---|---|
| Insertion/withdrawal cycles | 100 |

### Aging

| | |
|---|---|
| Temperature cycles | 192 |
| Result | Test passed |

### Needle-flame test

| | |
|---|---|
| Time of exposure | 30 s |
| Result | Test passed |

### Oscillation/broadband noise

| | |
|---|---|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03 |
| Spectrum | Long life test category 1, class B, body mounted |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 150 Hz |
| ASD level | 1.857 $(m/s^2)^2/Hz$ |
| Acceleration | 0.8g |
| Test duration per axis | 5 h |
| Test directions | X-, Y- and Z-axis |
| Result | Test passed |

### Shocks

| | |
|---|---|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03 |
| Pulse shape | Half-sine |
| Acceleration | 5g |
| Shock duration | 30 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 |

## Mounting



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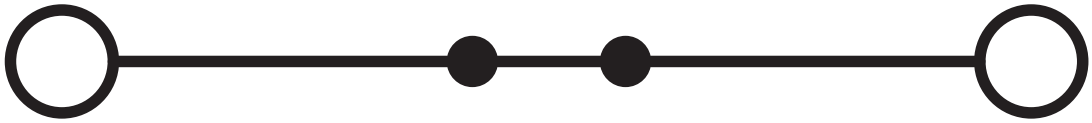
| | |
|---|---|
| Mounting type | NS 35/7,5 |
| | NS 35/15 |



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## Drawings

Circuit diagram





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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3212123

**IECEE CB Scheme**
Approval ID: DE1-62942

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 1000 V | 57 A | - | - |

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

**LR**
Approval ID: LR2371832TA

**NK**
Approval ID: 22ME0007

**VDE Zeichengenehmigung**
Approval ID: 40038590

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 1000 V | 57 A | - | 0.5 - 10 |

**PRS**
Approval ID: TE/2107/880590/21

**ABS**
Approval ID: 21-2192245-PDA

**DNV**
Approval ID: TAE000010T

**cUL Recognized**
Approval ID: E192998

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 550 V | 60 A | 20 - 6 | - |



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**EAC Ex**
Approval ID: RU C-DE.AB72.B.02351

**IECEx**
Approval ID: IECEx SEV13.0005U

**UL Recognized**
Approval ID: E192998

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 550 V | 60 A | 20 - 6 | - |

**ATEX**
Approval ID: SEV13ATEX0159U

**CCC**
Approval ID: 2020322313000631

**EAC Ex**
Approval ID: KZ 7500525010101950




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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27250101 |
| ECLASS-15.0 | 27250101 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC000897 |

### UNSPSC

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



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## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |


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