

PTTB 1,5/S/2P - Double-level terminal block



3212439

<https://www.phoenixcontact.com/us/products/3212439>

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Double-level terminal block, Current and voltage are determined by the plug used., nom. voltage: 500 V, nominal current: 16 A, connection method: Push-in / plug connection, 1st and 2nd level, Rated cross section: 1.5 mm², cross section: 0.14 mm² - 1.5 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- 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
- The compact design and front connection enable wiring in a confined space
- Tested for railway applications

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3212439 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE22 |
| Product key | BE2241 |
| GTIN | 4046356565400 |
| Weight per piece (including packing) | 6.16 g |
| Weight per piece (excluding packing) | 6 g |
| Customs tariff number | 85369010 |
| Country of origin | DE |

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Technical data

Notes

| | |
|---------|--|
| General | Current and voltage are determined by the plug used. |
|---------|--|

Product properties

| | |
|-----------------------|------------------------|
| Product type | Plug-in terminal block |
| Product family | PTTB |
| Area of application | Railway industry |
| | Machine building |
| | Plant engineering |
| Number of connections | 4 |
| Number of rows | 2 |
| Potentials | 2 |

Insulation characteristics

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

Electrical properties

| | |
|---|--------|
| Rated surge voltage | 6 kV |
| Maximum power dissipation for nominal condition | 0.56 W |

Connection data

| | |
|---------------------------------|---------------------|
| Number of connections per level | 2 |
| Nominal cross section | 1.5 mm ² |

1st and 2nd level

| | |
|---|--|
| Connection method | Push-in / plug connection |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A1 / B1 |
| Connection in acc. with standard | IEC 61984 |
| Conductor cross-section rigid | 0.14 mm ² ... 1.5 mm ² |
| Cross section AWG | 26 ... 16 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross-section, flexible [AWG] | 26 ... 16 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm ² ... 1.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm ² ... 1 mm ² (Using the AI-S 1-8 TQ ferrule, Item No. 1200293, is recommended) |
| Nominal current | 16 A (observe derating) |
| Maximum load current | 16 A (with 1.5 mm ² conductor cross-section) |
| Nominal voltage | 500 V |
| Nominal cross section | 1.5 mm ² |

1st and 2nd level Connection cross sections directly pluggable

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| | |
|---|--|
| Conductor cross-section rigid | 0.25 mm ² ... 1.5 mm ² |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm ² ... 1.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm ² ... 1 mm ² |

Dimensions

| | |
|--------------------|---------|
| Width | 3.5 mm |
| End cover width | 2.2 mm |
| Height | 69.3 mm |
| Depth on NS 35/7,5 | 42.6 mm |
| Depth on NS 35/15 | 50.1 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 |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °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 |
| Calorimetric heat release NFPA 130 (ASTM E 1354) | 28 MJ/kg |
| 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 | 7.3 kV |
| Result | Test passed |
| Short-time withstand current 1.5 mm ² | 0.18 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 3.31 kV |
| Result | Test passed |

Mechanical properties

Mechanical data

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

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Mechanical tests

Attachment on the carrier

| | |
|-------------------------|-------------|
| DIN rail/fixing support | NS 35 |
| Test force setpoint | 1 N |
| Result | Test passed |

Environmental and real-life conditions

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 | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$ |
| ASD level | $0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$ |
| Acceleration | 0.58g |
| 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 ... 100 °C (max. operating temperature range including self-heating, see derating curve) |
| 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 61984 |
|----------------------------------|-----------|

Mounting

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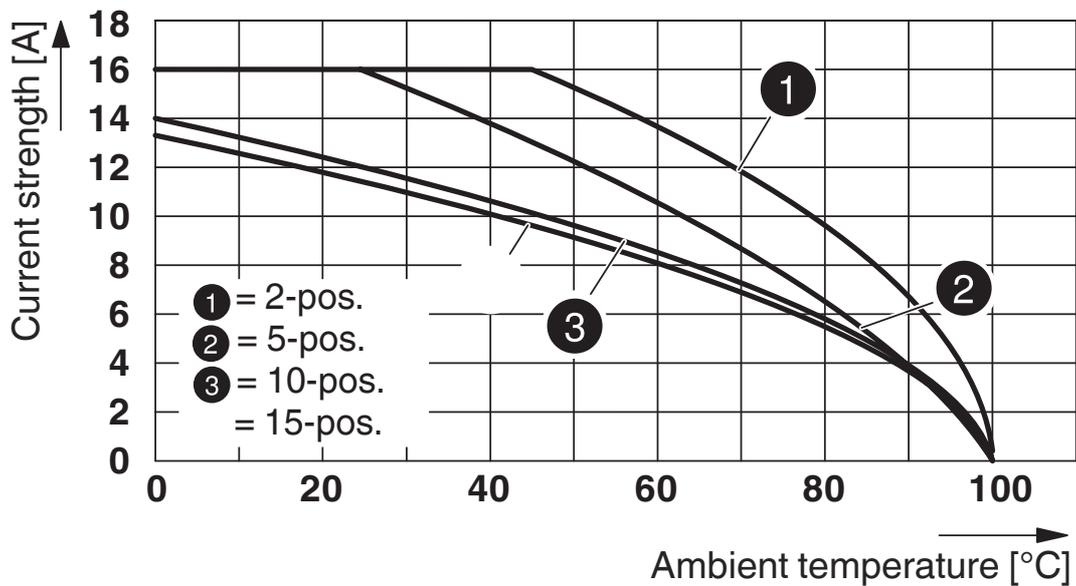
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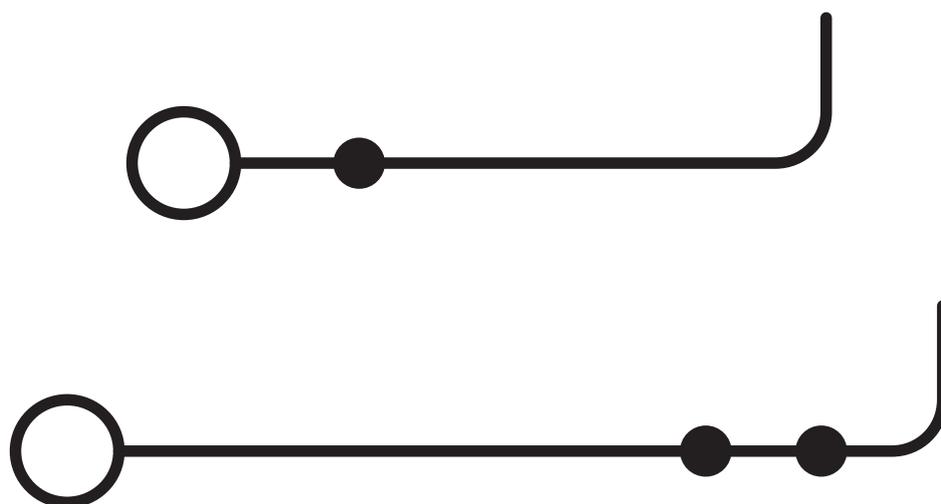
| | |
|---------------|-----------|
| Mounting type | NS 35/7,5 |
| | NS 35/15 |

Drawings

Diagram



Circuit diagram



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Approvals

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|  CSA Approval ID: 2030668 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 15 A | 26 - 14 | - |
| C | 300 V | 15 A | 26 - 14 | - |
| D | 600 V | 5 A | 26 - 14 | - |

|  IECEE CB Scheme Approval ID: DE1-65179 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | 500 V | - | - | 0.14 - 1.5 |

|  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 | 15 A | 26 - 14 | - |
| C | 300 V | 15 A | 26 - 14 | - |
| D | 600 V | 5 A | 26 - 14 | - |

|  LR Approval ID: LR2371832TA | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

|  ClassNK Approval ID: 14ME0912 | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

|  BV | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

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Approval ID: 39979/B0 BV



VDE Gutachten mit Fertigungsüberwachung

Approval ID: 40034766

| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine | 500 V | - | - | - |

DNV

Approval ID: TAE000010T



EAC

Approval ID: KZ7500651131219505

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250117 |
| ECLASS-15.0 | 27250117 |

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% |
|-------------------------------------|----------------------------|

EF3.0 Climate Change

| | |
|---------|--------------|
| CO2e kg | 0.04 kg CO2e |
|---------|--------------|

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com