# ST 2,5/2P-PE - Spring-cage protective conductor terminal block

3042146

https://www.phoenixcontact.com/gb/products/3042146

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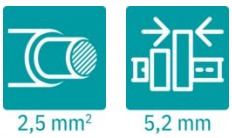
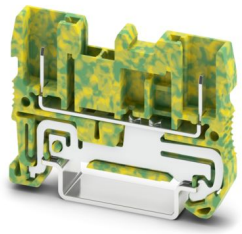


Spring-cage protective conductor terminal block, number of connections: 2, connection method: Plug-in connection, 1 level, cross section: 0.08 mm$^2$ - 4 mm$^2$, mounting type: NS 35/7,5, NS 35/15, color: green-yellow

## Your advantages

- Same shape and pitch as the PIN/PIN versions of the COMBI series
- Contact is made free from mechanical and electrical errors by simply snapping onto the DIN rail
- ST ...-PE meet all the requirements of standard IEC 60947-7-2
- Tested for railway applications

## Commercial data

| | |
|---|---|
| Item number | 3042146 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE2142 |
| Product key | BE2142 |
| GTIN | 4017918936068 |
| Weight per piece (including packing) | 8.535 g |
| Weight per piece (excluding packing) | 8.11 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

## Technical data

### Product properties

| | |
|---|---|
| Product type | Ground terminal block |
| Product family | ST |
| Area of application | Railway industry |
| | Machine building |
| | Plant engineering |
| Number of connections | 2 |
| Number of rows | 1 |

Insulation characteristics

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

### Electrical properties

| | |
|---|---|
| Rated surge voltage | 6 kV |

### Connection data

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

1 level

| | |
|---|---|
| Connection method | Plug-in connection |
| Note | Please observe the current carrying capacity of the DIN rails. |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 61984 |
| Conductor cross-section rigid | 0.08 mm² ... 4 mm² |
| Cross section AWG | 28 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.08 mm² ... 2.5 mm² |
| Conductor cross-section, flexible [AWG] | 28 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible ultrasound-compressed | 0.34 mm² ... 4 mm² |
| Conductor cross-section, flexible [AWG] ultrasound-compressed | 22 ... 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 |

### Dimensions

| | |
|---|---|
| Width | 5.2 mm |
| End cover width | 2.2 mm |
| Height | 49.1 mm |
| Depth on NS 35/7,5 | 36.5 mm |
| Depth on NS 35/15 | 44 mm |

## Material specifications

| | |
|---|---|
| Color | green-yellow |
| 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)) | 125 °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) | 27,5 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 |

## Mechanical properties

### Mechanical data

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

## Environmental and real-life conditions

### Service life

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

### 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 | 0.964 $(m/s^2)^2/Hz$ |
| 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

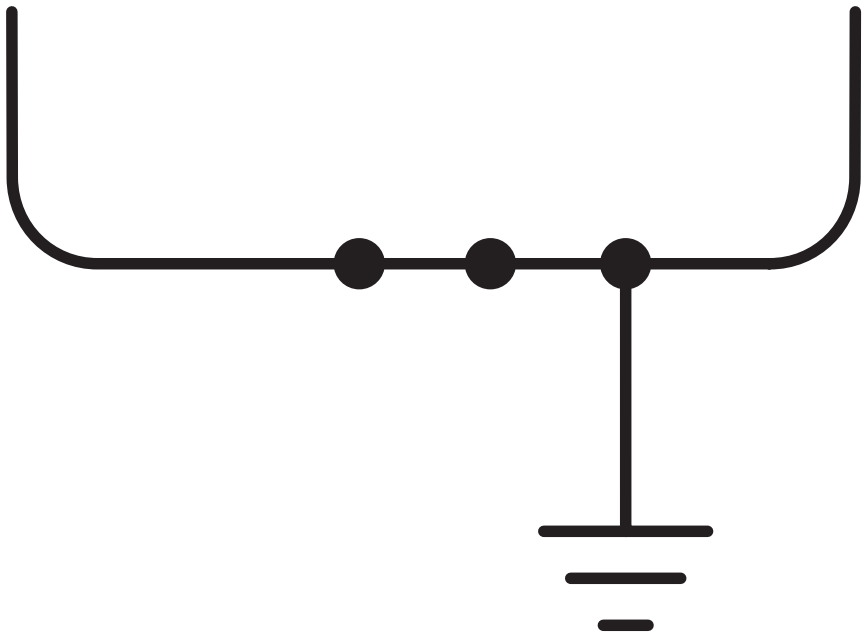
| | |
|---|---|
| Connection in acc. with standard | IEC 61984 |

## Mounting

| | |
|---|---|
| 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/3042146

**CSA**
Approval ID: 13631

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | - | - | 28 - 12 | - |
| C | | | | |
| | - | - | 28 - 12 | - |
| D | | | | |
| | - | - | 28 - 12 | - |

**IECEE CB Scheme**
Approval ID: DE1-62736/B1/B2

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

**VDE Zeichengenehmigung**
Approval ID: 40019518

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

**cULus Recognized**
Approval ID: E60425

**DNV**
Approval ID: TAE00001CS

**EAC**
Approval ID: KZ7500651131219505

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27250103 |
| ECLASS-15.0 | 27250103 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC000901 |

### UNSPSC

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

## 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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.041 kg CO2e |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