# PTRV 8-PV BU/BK - Potential distributors

3270145

https://www.phoenixcontact.com/us/products/3270145

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Potential distributors, nom. voltage: 250 V, nominal current: 17.5 A, connection method: Push-in connection, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level, Rated cross section: 1.5 $mm^2$, cross section: 0.14 $mm^2$ - 2.5 $mm^2$, mounting: NS 35/7,5, NS 35/15, color: blue, color of connection elements: black

## Your advantages

- Tool-free wiring in a confined space thanks to compact size
- Potential distributor for distributing potentials up to 17.5 A in EXi areas
- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- The 2.3 mm test pick-off enables testing between the conductors with commercially available test probes

## Commercial data

| | |
|---|---|
| Item number | 3270145 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | BE62 |
| Product key | BE6211 |
| GTIN | 4046356796200 |
| Weight per piece (including packing) | 33.74 g |
| Weight per piece (excluding packing) | 33.74 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

## Technical data

### Product properties

| | |
|---|---|
| Product type | Potential distributor |
| Number of positions | 2 |
| Number of connections | 32 |
| Number of rows | 8 |
| Potentials | 1 |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |

### Electrical properties

| | |
|---|---|
| Rated surge voltage | 4 kV |
| Maximum power dissipation for nominal condition | 0.56 W |

### Connection data

| | |
|---|---|
| Number of connections per level | 4 |
| Nominal cross section | 1.5 mm² |

1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm ... 10 mm |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.14 mm² ... 2.5 mm² |
| Cross section AWG | 26 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross-section, flexible [AWG] | 26 ... 16 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Nominal cross section | 1.5 mm² |
| Nominal current | 17.5 A |
| Maximum load current | 20 A (in case of a 2.5 mm² conductor cross-section, the maximum load current must not be exceeded by the total current of all connected conductors.) |
| Nominal voltage | 250 V |

1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross-section rigid | 0.34 mm² ... 2.5 mm² |
| Conductor cross-section, rigid [AWG] | 20 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm² ... 1.5 mm² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.34 mm² ... 1.5 mm² |

### Dimensions

| | |
|---|---|
| Width | 8.3 mm |

| | |
|---|---|
| Height | 100 mm |
| Depth on NS 35/7,5 | 87.5 mm |
| Depth on NS 35/15 | 95 mm |

## Material specifications

| | |
|---|---|
| Color | blue (RAL 5015) |
| Color of connection elements | black |
| 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 |

## Electrical tests

### Surge voltage test

| | |
|---|---|
| Test voltage setpoint | 4.8 kV |
| Result | Test passed |

### Temperature-rise test

| | |
|---|---|
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |
| Result | Test passed |
| Short-time withstand current 1.5 mm² | 0.18 kA |
| Short-time withstand current 2.5 mm² | 0.3 kA |
| Result | Test passed |

### Power-frequency withstand voltage

| | |
|---|---|
| Test voltage setpoint | 1.5 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 | 1 N |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|---|---|
| Rotation speed | 10 rpm |
| Revolutions | 135 |
| Conductor cross-section/weight | 0.14 mm² / 0.2 kg |
| | 1.5 mm² / 0.4 kg |
| | 2.5 mm² / 0.7 kg |
| Result | Test passed |

## Environmental and real-life conditions

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 2, bogie-mounted |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 250 Hz |
| ASD level | 6.12 (m/s²)²/Hz |
| Acceleration | 3.12g |
| 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 | 30g |
| 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 ... 105 °C (max. short-term operating temperature 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 (storage/transport) | 30 % ... 70 % |

## Standards and regulations

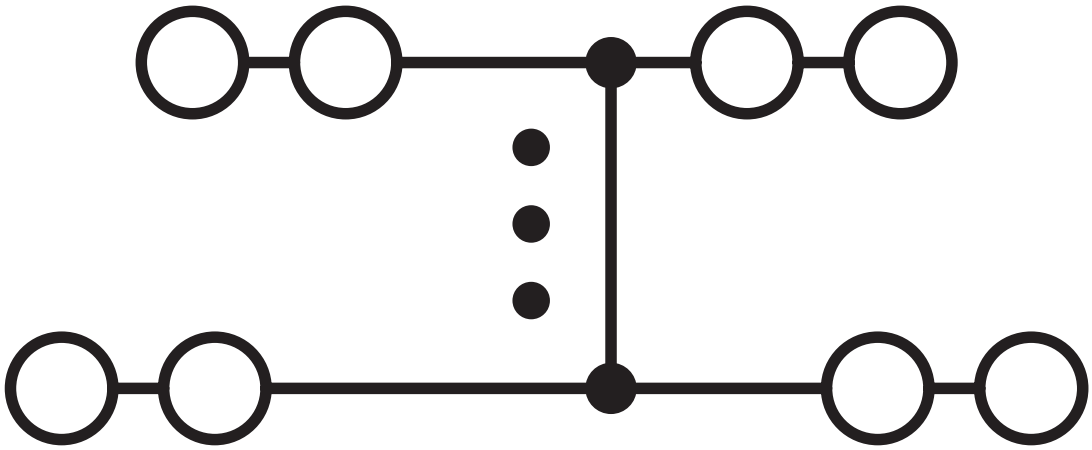
| | |
|---|---|
| Connection in acc. with standard | IEC 60947-7-1 |

## 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/us/products/3270145

**CSA**
Approval ID: 158887

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 10 A | 26 - 14 | - |
| D | | | | |
| | 300 V | 10 A | 26 - 14 | - |

**IECEE CB Scheme**
Approval ID: NL-58817

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 250 V | 17.5 A | - | - |

**EAC**
Approval ID: RU C-DE.BL08.B.00682

**cULus Recognized**
Approval ID: E60425

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| D | | | | |
| | 300 V | 10 A | 26 - 14 | - |

**KEMA-KEUR**
Approval ID: 71-102890

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Only flexible conductors | 250 V | 17.5 A | - | 0.14 - 1.5 |
| Only rigid conductors | 250 V | 17.5 A | - | 0.14 - 2.5 |

**DNV**
Approval ID: TAE000016Y

**EAC**
Approval ID: KZ7500651131219505

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27250119 |
| ECLASS-15.0 | 27250119 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC000897 |

### 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% |


Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com



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