

# PP-H 2,5/1-M - Plug

3210091

<https://www.phoenixcontact.com/us/products/3210091>

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Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Push-in connection, 1 level, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.14 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: gray

## Product description

Connector element center, left housing with engagement pin, right opened without cover

## Your advantages

- Large-surface labeling option
- The Push-in technology COMBI plugs for self-assembly provide solutions that users can implement themselves
- Tested for railway applications

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 3210091             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 50 pc               |
| Sales key                            | BE22                |
| Product key                          | BE2244              |
| Catalog page                         | Page 299 (C-1-2019) |
| GTIN                                 | 4046356333504       |
| Weight per piece (including packing) | 3.56 g              |
| Weight per piece (excluding packing) | 3.5 g               |
| Customs tariff number                | 85366990            |
| Country of origin                    | PL                  |

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## Technical data

### Product properties

|                     |               |
|---------------------|---------------|
| Product type        | Terminal plug |
| Number of positions | 1             |
| Pitch               | 5.2 mm        |
| Potentials          | 1             |

### Insulation characteristics

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

### Electrical properties

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

### Connection data

|                       |                     |
|-----------------------|---------------------|
| Nominal cross section | 2.5 mm <sup>2</sup> |
|-----------------------|---------------------|

#### 1 level

|                                                                                           |                                                       |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Stripping length                                                                          | 8 mm ... 10 mm                                        |
| Internal cylindrical gage                                                                 | A3                                                    |
| Connection in acc. with standard                                                          | IEC 61984                                             |
| Conductor cross section rigid                                                             | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>            |
| Cross section AWG                                                                         | 26 ... 12 (converted acc. to IEC)                     |
| Conductor cross section flexible                                                          | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
| Conductor cross section, flexible [AWG]                                                   | 26 ... 14 (converted acc. to IEC)                     |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup>                                   |
| Nominal current                                                                           | 24 A                                                  |
| Maximum load current                                                                      | 24 A (with 4 mm <sup>2</sup> conductor cross section) |
| Nominal voltage                                                                           | 500 V                                                 |
| Nominal cross section                                                                     | 2.5 mm <sup>2</sup>                                   |

#### 1 level Connection cross sections directly pluggable

|                                                                   |                                              |
|-------------------------------------------------------------------|----------------------------------------------|
| Conductor cross section rigid                                     | 0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

### Dimensions

|        |         |
|--------|---------|
| Width  | 5.2 mm  |
| Height | 15.8 mm |
| Depth  | 40.2 mm |
| Length | 15.8 mm |

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|       |        |
|-------|--------|
| Pitch | 5.2 mm |
|-------|--------|

## Material specifications

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| Color                                                                   | gray        |
| 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      |

## Environmental and real-life conditions

### 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 61984 |
|----------------------------------|-----------|

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3210091>

### DNV

Approval ID: TAE00003JE



### CSA

Approval ID: 2030668

|             | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|-------------|-----------------------|-----------------------|-------------------|----------------------|
| Use group B |                       |                       |                   |                      |
|             | 300 V                 | 20 A                  | 26 - 12           | -                    |
| Use group C |                       |                       |                   |                      |
|             | 300 V                 | 20 A                  | 26 - 12           | -                    |



### EAC

Approval ID: RU C-DE.BL08.B.00511



### cULus Recognized

Approval ID: E60425



### LR

Approval ID: LR2371832TA



### NK

Approval ID: 14ME0912



### RS

Approval ID: 22.44.01.00083.250



### BV

Approval ID: 25278/C1 BV

### ABS

Approval ID: 21-2192245-PDA



### LR

Approval ID: 14/20056

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**cULus Recognized**  
Approval ID: E60425

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141151 |
| ECLASS-12.0 | 27141151 |
| ECLASS-13.0 | 27250306 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC002021 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

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