

## Plug - PP-H 1,5/S/12 - 3212617

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Plug, Connection method: Push-in connection, Number of positions: 12, Cross section: 0.14 mm<sup>2</sup> - 1.5 mm<sup>2</sup>, AWG: 26 - 14, Width: 42 mm, Height: 31.3 mm, Color: gray

The figure shows the PP-H 1,5/S/6 version

### Why buy this product

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

### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 STK    |
| Minimum order quantity               | 10 STK   |
| Weight per Piece (excluding packing) | 20.000 g |
| Custom tariff number                 | 85366990 |
| Country of origin                    | Poland   |

### Technical data

#### Environmental Product Compliance

|            |  |
|------------|--|
| China RoHS | No hazardous substances above threshold values |
|------------|--|

#### General

|                       |                     |
|-----------------------|---------------------|
| Number of positions   | 12                  |
| Number of levels      | 1                   |
| Number of connections | 12                  |
| Potentials            | 12                  |
| Nominal cross section | 1.5 mm <sup>2</sup> |
| Color                 | gray                |

# Plug - PP-H 1,5/S/12 - 3212617

## Technical data

### General

|   |   |
|---|---|
| Insulating material   | PA  |
| Flammability rating according to UL 94                                  | V0  |
| Area of application   | Railway industry  |
|   | Machine building  |
|   | Plant engineering   |
| Maximum load current  | 17.5 A (with 1.5 mm <sup>2</sup> conductor cross section) |
| Rated surge voltage   | 6 kV  |
| Degree of pollution   | 3   |
| Overvoltage category  | III   |
| Insulating material group   | I   |
| Maximum load current  | 17.5 A (with 1.5 mm <sup>2</sup> conductor cross section) |
| Nominal current I <sub>N</sub>  | 17.5 A (observe derating)                                 |
| Nominal voltage U <sub>N</sub>  | 500 V   |
| Open side panel   | Yes   |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C  |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C  |
| Static insulating material application in cold                          | -60 °C  |
| Behavior in fire for rail vehicles (DIN 5510-2)                         | Test passed   |
| Flame test method (DIN EN 60695-11-10)                                  | V0  |
| Oxygen index (DIN EN ISO 4589-2)  | >32 %   |
| NF F16-101, NF F10-102 Class I  | 2   |
| NF F16-101, NF F10-102 Class F  | 2   |
| 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  |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 28 MJ/kg  |
| 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   |

### Dimensions

|        |         |
|--------|---------|
| Width  | 42 mm   |
| Length | 16.5 mm |
| Height | 31.3 mm |
|        | 19.5 mm |
| Pitch  | 3.5 mm  |

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## Technical data

### Connection data

|  |                      |
|--|----------------------|
| Connection method  | Push-in connection   |
| Connection in acc. with standard   | IEC 61984            |
| Conductor cross section solid min.   | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.   | 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG min.   | 26                   |
| Conductor cross section AWG max.   | 14                   |
| Conductor cross section flexible min.                                      | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible max.                                      | 1.5 mm <sup>2</sup>  |
| Min. AWG conductor cross section, flexible                                 | 26                   |
| Max. AWG conductor cross section, flexible                                 | 14                   |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve min.    | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve max.    | 1 mm <sup>2</sup>    |
| Stripping length   | 8 mm ... 10 mm       |
| Internal cylindrical gage  | A1 / B1              |

### Standards and Regulations

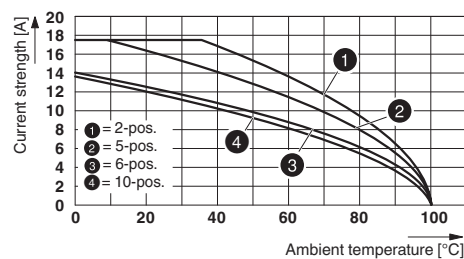
|  |           |
|--|-----------|
| Connection in acc. with standard       | CSA       |
|  | IEC 61984 |
| Flammability rating according to UL 94 | V0        |

## Drawings

### Circuit diagram



### Diagram



## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 272607xx |
| eCl@ss 4.1 | 27260701 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27260701 |
| eCl@ss 5.1 | 27260701 |
| eCl@ss 6.0 | 27141151 |
| eCl@ss 7.0 | 27141151 |
| eCl@ss 8.0 | 27141151 |
| eCl@ss 9.0 | 27141151 |

### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | EC002021 |
| ETIM 5.0 | EC002021 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211802 |
| UNSPSC 7.0901 | 39121402 |
| UNSPSC 11     | 39121402 |
| UNSPSC 12.01  | 39121402 |
| UNSPSC 13.2   | 39121402 |

## Approvals


### Approvals

#### Approvals

UL Recognized / cUL Recognized / GL / CSA / LR / VDE Gutachten mit Fertigungsüberwachung / IECCEB Scheme / EAC / NK / BV / cULus Recognized


#### Ex Approvals

### Approval details

|  |       |       |       |
|--|-------|-------|-------|
| UL Recognized  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> FILE E 60425 |       |       |       |
|  | B     | C     | D     |
| mm <sup>2</sup> /AWG/kcmil   | 26-14 | 26-14 | 26-14 |
| Nominal current I <sub>N</sub>   | 15 A  | 15 A  | 5 A   |
| Nominal voltage U <sub>N</sub>   | 300 V | 300 V | 600 V |


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## Approvals

cUL Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 60425


|                            | B     | C     | D     |
|----------------------------|-------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil | 26-14 | 26-14 | 26-14 |
| Nominal current IN         | 15 A  | 15 A  | 5 A   |
| Nominal voltage UN         | 300 V | 300 V | 600 V |

GL <http://www.gl-group.com/newbuilding/approvals/index.html> 2040111 HH


CSA  13631

|                            | B     | C     | D     |
|----------------------------|-------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil | 26-14 | 26-14 | 26-14 |
| Nominal current IN         | 15 A  | 15 A  | 5 A   |
| Nominal voltage UN         | 300 V | 300 V | 600 V |

LR <http://www.lr.org/en> 12/20038 (E2)

VDE Gutachten mit Fertigungsüberwachung  40034766

| mm <sup>2</sup> /AWG/kcmil | 0.14-1.5 |
|----------------------------|----------|
| Nominal current IN         | 14.1 A   |
| Nominal voltage UN         | 500 V    |

IECEE CB Scheme  <http://www.iecee.org/> DE1-50172

| mm <sup>2</sup> /AWG/kcmil | 0.14-1.5 |
|----------------------------|----------|
| Nominal current IN         | 14.1 A   |
| Nominal voltage UN         | 500 V    |


EAC 7500651.22.01.00246

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### Approvals

NK 14ME0912

BV 39979/A0 BV

cULus Recognized  US <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

### Accessories

#### Accessories

#### Cable housing

Cable housing - PH 1,5/S/3 - 3212756



Cable housing, Pitch: 10.5 mm, Length: 19.9 mm, Width: 10.5 mm, Height: 36.8 mm, Number of positions: 3, Color: gray

Cable housing - PH 1,5/S/4 - 3212769



Cable housing, Pitch: 14 mm, Length: 19.9 mm, Width: 14 mm, Height: 36.8 mm, Number of positions: 4, Color: gray

Cable housing - PH 1,5/S/5 - 3212772



Cable housing, Pitch: 17.5 mm, Length: 19.9 mm, Width: 17.5 mm, Height: 36.8 mm, Number of positions: 5, Color: gray

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### Accessories

Cable housing - PH 1,5/S/6 - 3212785



Cable housing, Pitch: 21 mm, Length: 19.9 mm, Width: 21 mm, Height: 36.8 mm, Number of positions: 6, Color: gray

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Cable housing - PH 1,5/S/7 - 3212798



Cable housing, Pitch: 24.5 mm, Length: 19.9 mm, Width: 24.5 mm, Height: 36.8 mm, Number of positions: 7, Color: gray

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Cable housing - PH 1,5/S/8 - 3212808



Cable housing, Pitch: 28 mm, Length: 19.9 mm, Width: 28 mm, Height: 36.8 mm, Number of positions: 8, Color: gray

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Cable housing - PH 1,5/S/9 - 3212811



Cable housing, Pitch: 31.5 mm, Length: 19.9 mm, Width: 31.5 mm, Height: 36.8 mm, Number of positions: 9, Color: gray

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Cable housing - PH 1,5/S/10 - 3212824



Cable housing, Pitch: 35 mm, Length: 19.9 mm, Width: 35 mm, Height: 36.8 mm, Number of positions: 10, Color: gray

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## Plug - PP-H 1,5/S/12 - 3212617

### Accessories

#### Cable housing - PH 1,5/S/11 - 3212837



Cable housing, Pitch: 38.5 mm, Length: 19.9 mm, Width: 38.5 mm, Height: 36.8 mm, Number of positions: 11, Color: gray

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#### Cable housing - PH 1,5/S/12 - 3212840



Cable housing, Pitch: 42 mm, Length: 19.9 mm, Width: 42 mm, Height: 36.8 mm, Number of positions: 12, Color: gray

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#### Cable housing - PH 1,5/S/13 - 3212853



Cable housing, Pitch: 45.5 mm, Length: 19.9 mm, Width: 45.5 mm, Height: 36.8 mm, Number of positions: 13, Color: gray

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#### Cable housing - PH 1,5/S/14 - 3212866



Cable housing, Pitch: 49 mm, Length: 19.9 mm, Width: 49 mm, Height: 36.8 mm, Number of positions: 14, Color: gray

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#### Cable housing - PH 1,5/S/15 - 3212879



Cable housing, Pitch: 52.5 mm, Length: 19.9 mm, Width: 52.5 mm, Height: 36.8 mm, Number of positions: 15, Color: gray

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### Insulating sleeve



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### Accessories

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

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Insulating sleeve - MPS-IH RD - 0201676



Insulating sleeve, Color: red

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Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue

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Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

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Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

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## Plug - PP-H 1,5/S/12 - 3212617

### Accessories

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

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Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

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### Labeled terminal marker

Zack Marker strip, flat - ZBF 3,5 CUS - 0829394



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 3.5 x 5.2 mm

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Zack Marker strip, flat - ZBF 3,5,LGS:FORTL.ZAHLEN - 0801406



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 5.15 x 3.5 mm

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Zack Marker strip, flat - ZBF 3,5,QR:FORTL.ZAHLEN - 0801407



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 5.15 x 3.5 mm

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## Plug - PP-H 1,5/S/12 - 3212617

### Accessories

Marker for terminal blocks - UCT-TMF 3,5 CUS - 0829644



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 2.7 x 4.7 mm

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### Mounting material

Latching - PR 1,5/S - 3212882



Latching, Color: orange

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Latching - PR 1,5/S/2 - 3212895



Latching, Color: orange

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Latching - PRZ 1,5/S - 3212905



Latching, Length: 3 mm, Width: 3.5 mm, Color: orange

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### Screwdriver tools

Screwdriver - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

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### Accessories

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Screwdriver - ST-BW 0 - 1200135



Actuation tool, for all 1.5 mm<sup>2</sup> spring cages from PT 1,5/S and FT 1,5/S

### Shield connection

Shield connection clip - PSH 3-6 - 3040591



Shield connection clip, Color: black

Shield connection clip - PSH 5-10 - 3040601



Shield connection clip, Color: black

### Strain relief

Strain relief - PZ 1,5/S/2 - 3212918



Strain relief, Number of positions: 2, Color: black

### Terminal marking

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### Accessories

Zack Marker strip, flat - ZBF 3,5:UNBEDRUCKT - 0829392



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 3.5 x 5.2 mm

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Marker for terminal blocks - UCT-TMF 3,5 - 0829486



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, THERMOMARK PRIME, Mounting type: Snap into flat marker groove, for terminal block width: 3.5 mm, Lettering field: 2.7 x 4.7 mm

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Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, Color: silver