

## Plug - PP-H 4/12 - 3212080

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Plug, nom. voltage: 800 V, nominal current: 32 A, connection method: Push-in / plug connection, number of connections: 12, number of positions: 12, cross section: 0.2 mm<sup>2</sup> - 6 mm<sup>2</sup>, AWG: 24 - 10, width: 74.4 mm, height: 42.3 mm, color: gray

### 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

RoHS

COMPLETE RoHS

### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	10 pc
GTIN	 4 046356 483162
GTIN	4046356483162
Weight per Piece (excluding packing)	60.000 g
Custom tariff number	85366990
Country of origin	Poland

### Technical data

#### General

Number of positions	12
Number of levels	1
Number of connections	12
Potentials	12
Nominal cross section	4 mm <sup>2</sup>
Color	gray

# Plug - PP-H 4/12 - 3212080

## Technical data

### General

Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry
	Machine building
	Plant engineering
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	1.02 W
Maximum load current	32 A (with 6 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	32 A
Nominal voltage U <sub>N</sub>	800 V
Open side panel	No
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	74.4 mm
Length	21 mm
Height	42.3 mm
	24 mm
Pitch	6.2 mm

# Plug - PP-H 4/12 - 3212080

## Technical data

### Connection data

Connection	1st level connection left
Connection method	Push-in / plug connection
Stripping length	10 mm ... 12 mm
Connection in acc. with standard	IEC 61984
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	10
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	12
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	4 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	4 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	1 mm <sup>2</sup>
Internal cylindrical gage	A4

### Standards and Regulations

Connection in acc. with standard	CUL
	IEC 61984
Flammability rating according to UL 94	V0
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

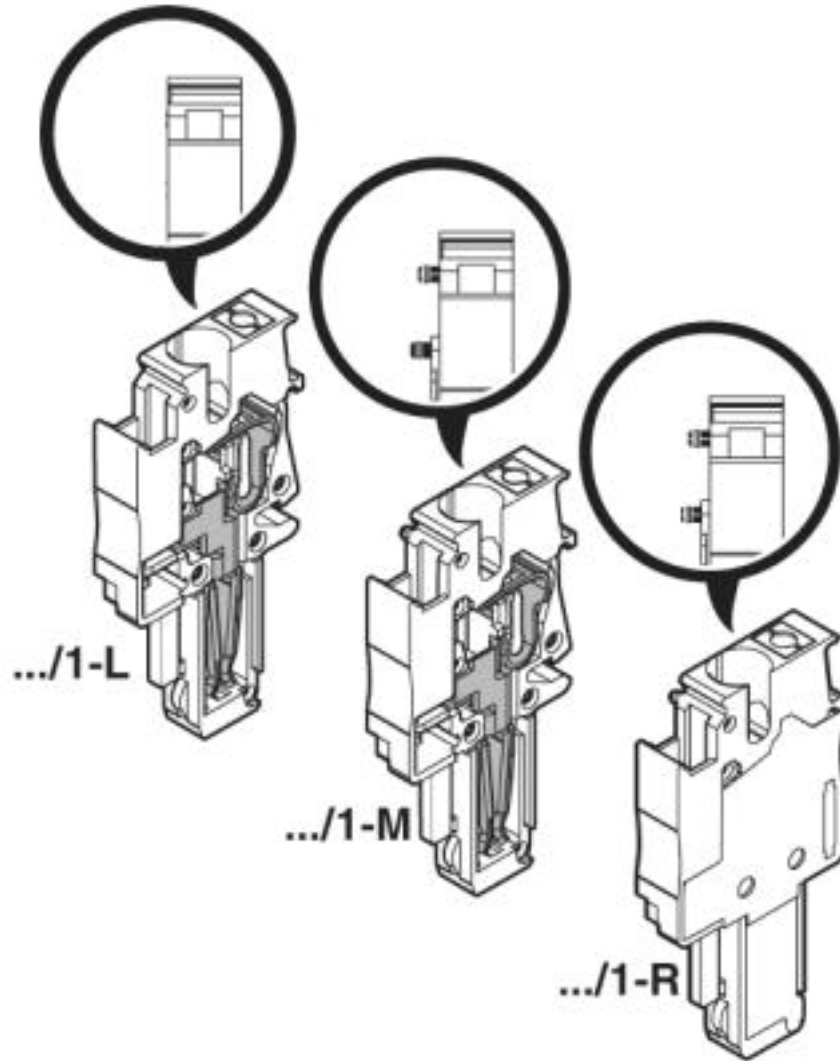
### Environmental Product Compliance

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

## Drawings

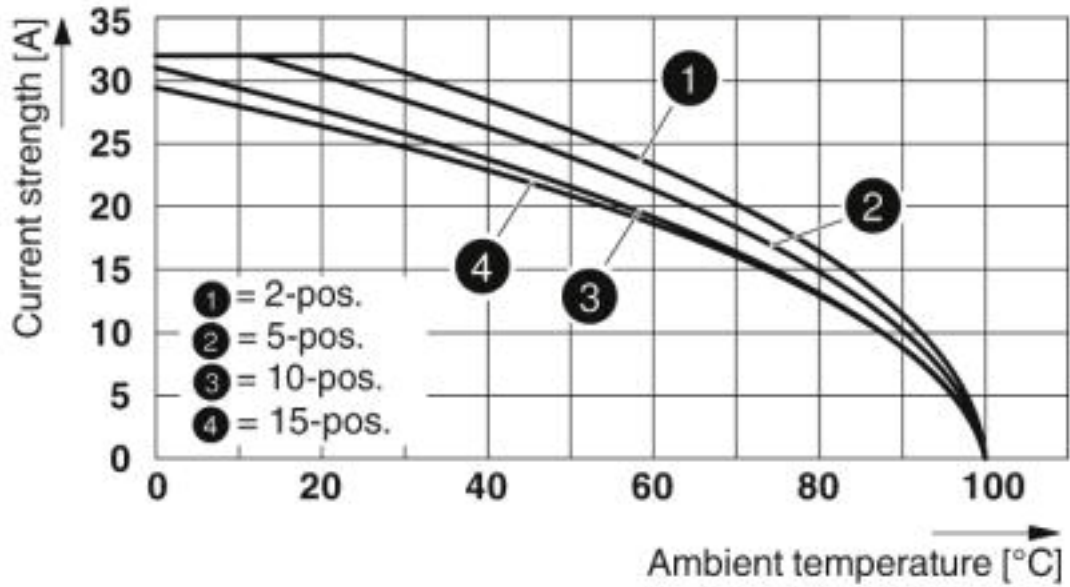
# Plug - PP-H 4/12 - 3212080

Schematic diagram



# Plug - PP-H 4/12 - 3212080

Diagram



Circuit diagram



## Classifications

eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27141100
eCl@ss 7.0	27141151
eCl@ss 8.0	27141151
eCl@ss 9.0	27141151

ETIM

ETIM 4.0	EC002021
ETIM 5.0	EC002021
ETIM 6.0	EC002021
ETIM 7.0	EC002021

# Plug - PP-H 4/12 - 3212080

## Classifications

### UNSPSC

UNSPSC 6.01	30211802
UNSPSC 7.0901	39121402
UNSPSC 11	39121402
UNSPSC 12.01	39121402
UNSPSC 13.2	39121402
UNSPSC 18.0	39121402
UNSPSC 19.0	39121402
UNSPSC 20.0	39121402
UNSPSC 21.0	39121402

## Approvals

### Approvals

#### Approvals

DNV GL / BV / LR / UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE000010T
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BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	39979/A0 BV
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	14/20057
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# Plug - PP-H 4/12 - 3212080

## Approvals

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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	28 A	28 A	
mm <sup>2</sup> /AWG/kcmil	24-10	24-10	

cUL 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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	28 A	28 A	
mm <sup>2</sup> /AWG/kcmil	24-10	24-10	

EAC		RU C- DE.A*30.B.01742
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cULus Recognized	
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## Accessories

### Accessories

#### Cable housing

Cable housing - PH 4/2 - 3000734



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 12.4 mm, height: 52.3 mm, number of positions: 2, color: gray

## Plug - PP-H 4/12 - 3212080

### Accessories

Cable housing - PH 4/3 - 3000736



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 18.6 mm, height: 52.3 mm, number of positions: 3, color: gray

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Cable housing - PH 4/4 - 3000737



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 24.8 mm, height: 52.3 mm, number of positions: 4, color: gray

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Cable housing - PH 4/5 - 3000738



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 31 mm, height: 52.3 mm, number of positions: 5, color: gray

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Cable housing - PH 4/6 - 3000739



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 37.2 mm, height: 52.3 mm, number of positions: 6, color: gray

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Cable housing - PH 4/7 - 3000740



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 43.4 mm, height: 52.3 mm, number of positions: 7, color: gray

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## Plug - PP-H 4/12 - 3212080

### Accessories

Cable housing - PH 4/8 - 3000741



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 49.6 mm, height: 52.3 mm, number of positions: 8, color: gray

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Cable housing - PH 4/9 - 3000742



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 55.8 mm, height: 52.3 mm, number of positions: 9, color: gray

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Cable housing - PH 4/10 - 3000743



Cable housing, pitch: 6.2 mm, length: 21 mm, width: 62 mm, height: 52.3 mm, number of positions: 10, color: gray

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### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



## Plug - PP-H 4/12 - 3212080

### Accessories

Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



## Plug - PP-H 4/12 - 3212080

### Accessories

Insulating sleeve - ISH 4/0,5 - 3002885



Insulating sleeve, color: gray

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Insulating sleeve - ISH 4/1,0 - 3002898



Insulating sleeve, color: black

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### Labeled terminal marker

Zack Marker strip, flat - ZBF 6 CUS - 0825027



Zack Marker strip, flat, Strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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Marker for terminal blocks - UC-TMF 6 CUS - 0824646



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: 6.2 mm, lettering field size: 5.6 x 5.1 mm, Number of individual labels: 80

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Marker for terminal blocks - UCT-TMF 6 CUS - 0829665



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: 6.2 mm, lettering field size: 5.4 x 4.7 mm, Number of individual labels: 60

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## Plug - PP-H 4/12 - 3212080

### Accessories

#### Zack Marker strip, flat - ZBF 6,LGS:FORTL.ZAHLEN - 0808749



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: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

#### Zack Marker strip, flat - ZBF 6,QR:FORTL.ZAHLEN - 0808765



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: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

#### Zack Marker strip, flat - ZBF 6,LGS:GERADE ZAHLEN - 0810834



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

#### Zack Marker strip, flat - ZBF 6,LGS:UNGERADE ZAHLEN - 0810876



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

### Mounting material

#### Latching - PR/2 - 3040630



Latching, length: 29.8 mm, width: 10 mm, number of positions: 2, color: orange

## Plug - PP-H 4/12 - 3212080

### Accessories

Latching - PRT/2 - 3040631



Latching, can only be released using a screwdriver, length: 23.2 mm, width: 9 mm, number of positions: 2, color: orange

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Latching - PRZ - 3040614



Latching, length: 63.6 mm, width: 9.7 mm, number of positions: 2, color: orange

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Latching - PR - 3040559



Latching, length: 29.8 mm, width: 4.4 mm, number of positions: 1, color: orange

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### Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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Screwdriver - ST-BW - 1207608



Actuation tool, for all 2.5 mm<sup>2</sup> - 4.0 mm<sup>2</sup> spring-cages

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## Plug - PP-H 4/12 - 3212080

### Accessories

#### Shield connection

Shield connection clamp - PSH 3- 6 - 3040591



Shield connection clamp, color: black

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Shield connection clamp - PSH 5-10 - 3040601



Shield connection clamp, color: black

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#### Terminal marking

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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Marker for terminal blocks - UC-TMF 6 - 0818140



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 5.1 mm, Number of individual labels: 80

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Marker for terminal blocks - UCT-TMF 6 - 0828746



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.4 x 4.7 mm, Number of individual labels: 60

## Plug - PP-H 4/12 - 3212080

### Accessories

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Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray

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