

# PP-H 2,5/12 - Plug

3209976

<https://www.phoenixcontact.com/us/products/3209976>



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.



Plug, nom. voltage: 500 V, nominal current: 24 A, number of connections: 12, number of positions: 12, connection method: Push-in connection, Rated cross section: 2.5 mm<sup>2</sup>, 1 level, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, 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

## Commercial data

Item number	3209976
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE22
Product key	BE2244
GTIN	4046356366861
Weight per piece (including packing)	41.03 g
Weight per piece (excluding packing)	41.03 g
Customs tariff number	85366990
Country of origin	PL

# PP-H 2,5/12 - Plug

3209976

<https://www.phoenixcontact.com/us/products/3209976>

## Technical data

### Notes

Notes on operation	COMBI connectors are connectors without switching power in accordance with IEC 61984 and can be connected or disconnected without load or voltage when used as intended
--------------------	---

### Product properties

Product type	Terminal plug
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	12
Pitch	5.2 mm
Number of connections	12
Number of rows	1
Potentials	1

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

### Connection data

Number of connections per level	12
Nominal cross section	2.5 mm <sup>2</sup>

#### 1 level

Connection method	Push-in connection
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 cross section	2.5 mm <sup>2</sup>
Nominal current	24 A

# PP-H 2,5/12 - Plug



3209976

<https://www.phoenixcontact.com/us/products/3209976>

Maximum load current	24 A (with 4 mm <sup>2</sup> conductor cross-section)
Nominal voltage	500 V

## 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	62.4 mm
Height	15.8 mm
Depth	40.2 mm
Pitch	5.2 mm

## Material specifications

Color	gray (RAL 7042)
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

## Mechanical properties

### Mechanical data

Open side panel	No
-----------------	----

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-60 °C (max. operating temperature 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 %

# PP-H 2,5/12 - Plug



3209976

<https://www.phoenixcontact.com/us/products/3209976>

Permissible humidity (storage/transport)	30 % ... 70 %
--	---------------

## Standards and regulations

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

Drawings

Diagram



Circuit diagram



# PP-H 2,5/12 - Plug



3209976

<https://www.phoenixcontact.com/us/products/3209976>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3209976>

 <b>CSA</b> Approval ID: 158887				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	20 A	26 - 12	-
C	300 V	20 A	26 - 12	-

 <b>cULus Recognized</b> Approval ID: E60425				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	20 A	26 - 12	-
C	300 V	20 A	26 - 12	-
D	600 V	5 A	26 - 12	-

 <b>LR</b> Approval ID: LR2371832TA	
---	--

 <b>NK</b> Approval ID: 14ME0912	
--	--

 <b>BV</b> Approval ID: 25278/C1 BV	
---	--

<b>ABS</b> Approval ID: 21-2192245-PDA	
---	--

<b>DNV</b> Approval ID: TAE000010T	
---------------------------------------	--

 <b>EAC</b> Approval ID: KZ7500651131219505	
---	--

# PP-H 2,5/12 - Plug

3209976

<https://www.phoenixcontact.com/us/products/3209976>



# PP-H 2,5/12 - Plug

3209976

<https://www.phoenixcontact.com/us/products/3209976>



## Classifications

### ECLASS

ECLASS-13.0	27250306
ECLASS-15.0	27250306

### ETIM

ETIM 10.0	EC002021
-----------	----------

### UNSPSC

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

# PP-H 2,5/12 - Plug



3209976

<https://www.phoenixcontact.com/us/products/3209976>

## 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](mailto:info@phoenixcon.com)