

## Plug - SP-H 2,5/ 1-R - 3210842

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Plug, Connection method: Spring-cage connection, Number of positions: 1, Cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 28 - 12, Width: 5.2 mm, Height: 39 mm, Color: gray

### Product Description

Connector element right, left housing with engagement pin, right closed with cover

### Why buy this product

- ✓ Cable housing can be snapped on to the plugs, see figure below
- ✓ The plug with spring-cage connection is assembled directly on site by snapping together single-position plug elements
- ✓ The ST-COMBI plugs for self-assembly provide solutions that users can implement themselves
- ✓ Tested for railway applications



### Key Commercial Data

Packing unit	50 STK
GTIN	 4 046356 411837
GTIN	4046356411837
Weight per Piece (excluding packing)	3.330 g
Weight per piece (including packing)	3.330 g
Custom tariff number	85366990
Country of origin	Poland

### Technical data

#### General

Number of positions	1
Number of levels	1
Number of connections	1
Potentials	1
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray

# Plug - SP-H 2,5/ 1-R - 3210842

## 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	24 A (with a 2.5 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	24 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	500 V
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	5.2 mm
Length	15.8 mm
Height	39 mm
	24 mm
Pitch	5.2 mm

### Connection data

Connection method	Spring-cage connection
Connection in acc. with standard	IEC 61984
Conductor cross section solid min.	0.08 mm <sup>2</sup>

# Plug - SP-H 2,5/ 1-R - 3210842

## Technical data

### Connection data

Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	28
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.	2.5 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.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection method	Plug connection

### Standards and Regulations

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

### Environmental Product Compliance

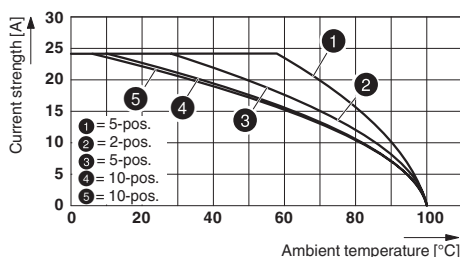
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

### Circuit diagram

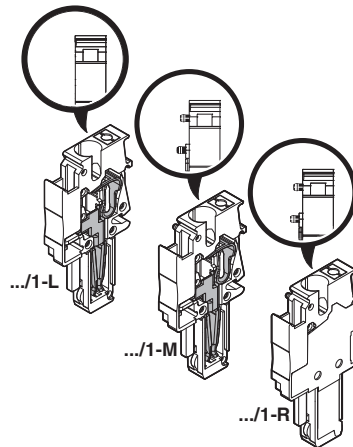


### Diagram



# Plug - SP-H 2,5/ 1-R - 3210842

Schematic diagram



## Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
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 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC002021
ETIM 5.0	EC002021
ETIM 6.0	EC002021

UNSPSC

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

## Approvals

Approvals

# Plug - SP-H 2,5/ 1-R - 3210842


## Approvals

Approvals


CSA / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

Ex Approvals


### Approval details

CSA  <http://www.csagroup.org/services/testing-and-certification/certified-product-listing/> 13631

	B	C
mm <sup>2</sup> /AWG/kcmil	26-12	26-12
Nominal current I <sub>N</sub>	20 A	20 A
Nominal voltage U <sub>N</sub>	300 V	300 V

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

	B	C
mm <sup>2</sup> /AWG/kcmil	26-12	26-12
Nominal current I <sub>N</sub>	20 A	20 A
Nominal voltage U <sub>N</sub>	300 V	300 V

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

	B	C
mm <sup>2</sup> /AWG/kcmil	26-12	26-12
Nominal current I <sub>N</sub>	20 A	20 A
Nominal voltage U <sub>N</sub>	300 V	300 V

EAC 7500651.22.01.00246

EAC EAC-Zulassung

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

## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

#### Accessories

#### Cable housing

##### Cable housing - PH 2,5/ 2 - 3209691



Cable housing, Pitch: 10.4 mm, Length: 19.9 mm, Width: 10.4 mm, Height: 36.8 mm, Number of positions: 2, Color: gray

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##### Cable housing - PH 2,5/ 3 - 3209701



Cable housing, Pitch: 15.6 mm, Length: 19.9 mm, Width: 15.6 mm, Height: 36.8 mm, Number of positions: 3, Color: gray

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##### Cable housing - PH 2,5/ 4 - 3209714



Cable housing, Pitch: 20.8 mm, Length: 19.9 mm, Width: 20.8 mm, Height: 36.8 mm, Number of positions: 4, Color: gray

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##### Cable housing - PH 2,5/ 5 - 3209727



Cable housing, Pitch: 26 mm, Length: 19.9 mm, Width: 26 mm, Height: 36.8 mm, Number of positions: 5, Color: gray

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##### Cable housing - PH 2,5/ 6 - 3209730



Cable housing, Pitch: 31.2 mm, Length: 19.9 mm, Width: 31.2 mm, Height: 36.8 mm, Number of positions: 6, Color: gray

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## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

#### Cable housing - PH 2,5/ 7 - 3209743



Cable housing, Pitch: 36.4 mm, Length: 19.9 mm, Width: 36.4 mm, Height: 36.8 mm, Number of positions: 7, Color: gray

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#### Cable housing - PH 2,5/ 8 - 3209756



Cable housing, Pitch: 41.6 mm, Length: 19.9 mm, Width: 41.6 mm, Height: 36.8 mm, Number of positions: 8, Color: gray

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#### Cable housing - PH 2,5/ 9 - 3209507



Cable housing, Pitch: 46.8 mm, Length: 19.9 mm, Width: 46.8 mm, Height: 36.8 mm, Number of positions: 9, Color: gray

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#### Cable housing - PH 2,5/10 - 3209769



Cable housing, Pitch: 52 mm, Length: 19.9 mm, Width: 52 mm, Height: 36.8 mm, Number of positions: 10, Color: gray

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#### Cable housing - PH 2,5/11 - 3209772



Cable housing, Pitch: 57.2 mm, Length: 19.9 mm, Width: 57.2 mm, Height: 36.8 mm, Number of positions: 11, Color: gray

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## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

Cable housing - PH 2,5/12 - 3209785



Cable housing, Pitch: 62.4 mm, Length: 19.9 mm, Width: 62.4 mm, Height: 36.8 mm, Number of positions: 12, Color: gray

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Cable housing - PH 2,5/13 - 3209798



Cable housing, Pitch: 67.6 mm, Length: 19.9 mm, Width: 67.6 mm, Height: 36.8 mm, Number of positions: 13, Color: gray

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Cable housing - PH 2,5/14 - 3209808



Cable housing, Pitch: 72.8 mm, Length: 19.9 mm, Width: 72.8 mm, Height: 36.8 mm, Number of positions: 14, Color: gray

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Cable housing - PH 2,5/15 - 3209811



Cable housing, Pitch: 78 mm, Length: 19.9 mm, Width: 78 mm, Height: 36.8 mm, Number of positions: 15, Color: gray

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### End cover

Flange cover - DF-SP-H 2,5 - 3209824



Flange cover, Length: 35.8 mm, Width: 4.5 mm, Height: 24.7 mm, Color: gray

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### Flange



## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

Flange cover - DFS-SP-H 2,5 - 3061431



Flange cover, Length: 35.8 mm, Width: 4.5 mm, Height: 24.7 mm, Color: gray

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### Insulating sleeve

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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## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

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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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Insulating sleeve - ISH 2,5/0,2 - 3002843



Insulating sleeve, Color: white

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Insulating sleeve - ISH 2,5/0,5 - 3002856



Insulating sleeve, Color: gray

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## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

Insulating sleeve - ISH 2,5/1,0 - 3002869



Insulating sleeve, Color: black

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### Mounting material

Latching - PR - 3040559



Latching, Number of positions: 1, Color: orange

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Latching - PR/2 - 3040630



Latching, Number of positions: 2, Color: orange

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Latching - PRT/2 - 3040631



Latching, can only be released using a screwdriver, Number of positions: 2, Color: orange

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Latching - PRZ - 3040614



Latching, Length: 3 mm, Width: 5.2 mm, Number of positions: 2, Color: orange

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### Screwdriver tools

## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

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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### Shield connection

Shield connection clip - PSH 3- 6 - 3040591



Shield connection clip, Color: black

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Shield connection clip - PSH 5-10 - 3040601



Shield connection clip, Color: black

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### Strain relief

Strain relief - PZ/2 - 3040627



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

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Strain relief - PZ/4 - 3040643



Strain relief, Number of positions: 4, Color: black

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### Test plug terminal block

## Plug - SP-H 2,5/ 1-R - 3210842

### Accessories

Test plugs - MPS-MT - 0201744



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

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