

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



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Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: gray

## Product description

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

## Your advantages

- 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

## Commercial data

Item number	3210842
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE2
Product key	BE2144
Catalog page	Page 319 (C-1-2019)
GTIN	4046356411837
Weight per piece (including packing)	3.33 g
Weight per piece (excluding packing)	3.33 g
Customs tariff number	85366990
Country of origin	PL

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



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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
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### Connection data

Nominal cross section	2.5 mm <sup>2</sup>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 61984
Conductor cross section rigid	0.08 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	28 ... 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>

### Dimensions

Width	5.2 mm
Height	15.8 mm
Depth	39 mm
Length	15.8 mm
Pitch	5.2 mm

### Material specifications

Color	gray
Flammability rating according to UL 94	V0
Insulating material group	I

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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

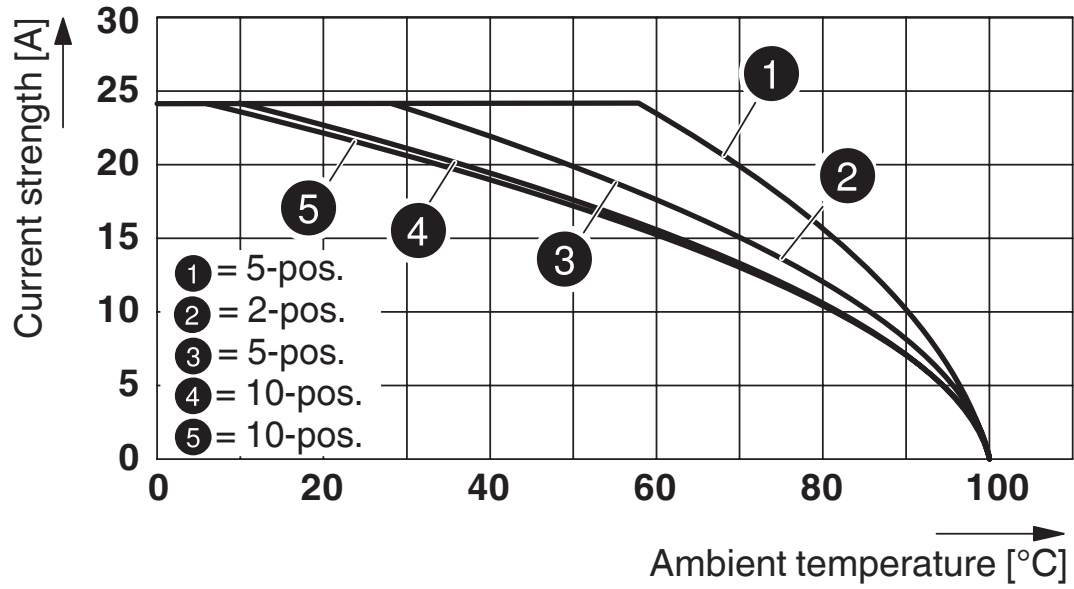
Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

## Standards and regulations

Connection in acc. with standard	IEC 61984
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## Drawings

Diagram

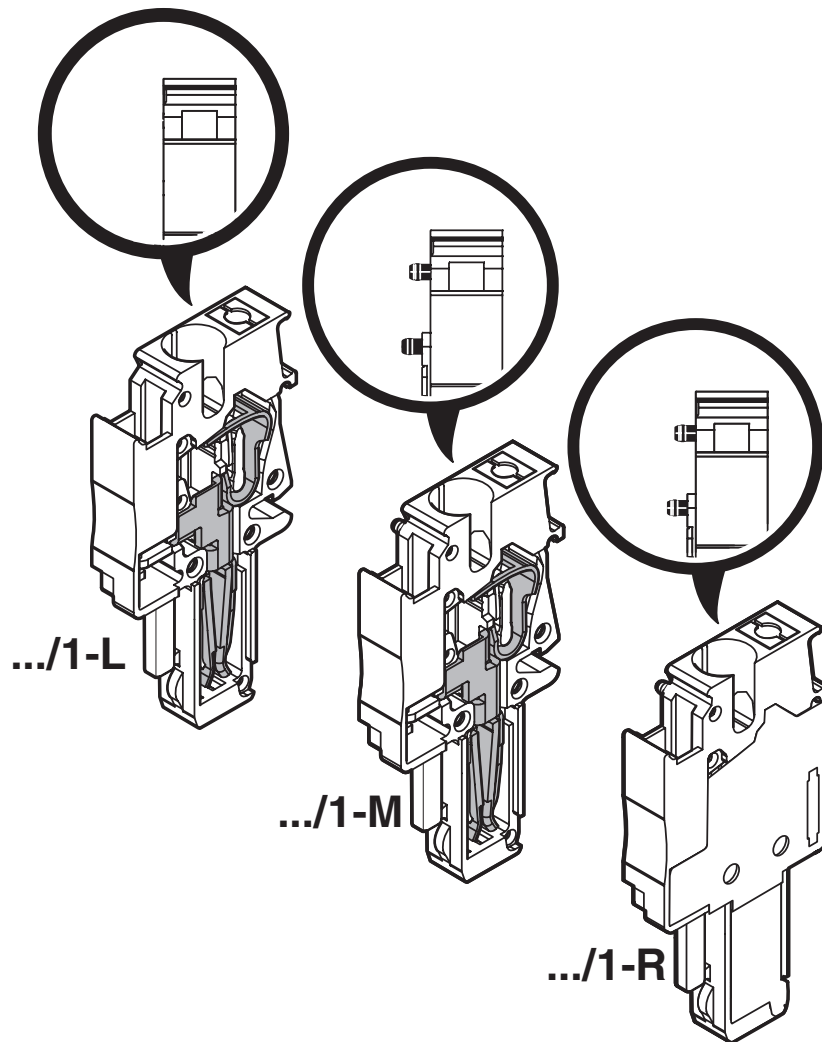


# SP-H 2,5/ 1-R - Plug

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Schematic diagram



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

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Circuit diagram



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





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/3210842>


 <b>CSA</b> Approval ID: 2030668				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	20 A	26 - 12	-
Use group C	300 V	20 A	26 - 12	-

 <b>IECEE CB Scheme</b> Approval ID: DE1-62736/B1/B2				
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 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00511				
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 <b>VDE Zeichengenehmigung</b> Approval ID: 40019518				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Only flexible conductors	500 V	-	-	0.2 - 2.5
Only rigid conductors	500 V	-	-	0.2 - 4

 <b>cULus Recognized</b> Approval ID: E60425				
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# SP-H 2,5/ 1-R - Plug

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002021
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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## Accessories

### PZ/2 - Strain relief

3040627

<https://www.phoenixcontact.com/in/products/3040627>



Strain relief, width: 9.3 mm, height: 48.7 mm, number of positions: 2, color: black

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### PZ/4 - Strain relief

3040643

<https://www.phoenixcontact.com/in/products/3040643>



Strain relief, width: 19.6 mm, height: 48.7 mm, number of positions: 4, color: black

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

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## PR - Latching

3040559

<https://www.phoenixcontact.com/in/products/3040559>



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

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## PR/2 - Latching

3040630

<https://www.phoenixcontact.com/in/products/3040630>



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

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<https://www.phoenixcontact.com/in/products/3210842>



## PRT/2 - Latching

3040631

<https://www.phoenixcontact.com/in/products/3040631>



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

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## PRZ - Latching

3040614

<https://www.phoenixcontact.com/in/products/3040614>



Latching, number of positions: 2, length: 64 mm, color: orange

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

3209824

<https://www.phoenixcontact.com/in/products/3209824>



Flange cover, connection method: Screw connection, depth: 24.7 mm, width: 4.5 mm, height: 35.8 mm, color: gray

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## PH 2,5/ 2 - Cable housing

3209691

<https://www.phoenixcontact.com/in/products/3209691>



Cable housing, pitch: 10.4 mm, depth: 36.8 mm, width: 10.4 mm, height: 19.9 mm, number of positions: 2, color: gray

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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/ 3 - Cable housing

3209701

<https://www.phoenixcontact.com/in/products/3209701>



Cable housing, pitch: 15.6 mm, depth: 36.8 mm, width: 15.6 mm, height: 19.9 mm, number of positions: 3, color: gray

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## PH 2,5/ 4 - Cable housing

3209714

<https://www.phoenixcontact.com/in/products/3209714>



Cable housing, pitch: 20.8 mm, depth: 36.8 mm, width: 20.8 mm, height: 19.9 mm, number of positions: 4, color: gray

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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/ 5 - Cable housing

3209727

<https://www.phoenixcontact.com/in/products/3209727>



Cable housing, pitch: 26 mm, depth: 36.8 mm, width: 26 mm, height: 19.9 mm, number of positions: 5, color: gray

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## PH 2,5/ 6 - Cable housing

3209730

<https://www.phoenixcontact.com/in/products/3209730>



Cable housing, pitch: 31.2 mm, depth: 36.8 mm, width: 31.2 mm, height: 19.9 mm, number of positions: 6, color: gray

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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/ 7 - Cable housing

3209743

<https://www.phoenixcontact.com/in/products/3209743>



Cable housing, pitch: 36.4 mm, depth: 36.8 mm, width: 36.4 mm, height: 19.9 mm, number of positions: 7, color: gray

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## PH 2,5/ 8 - Cable housing

3209756

<https://www.phoenixcontact.com/in/products/3209756>



Cable housing, pitch: 41.6 mm, depth: 36.8 mm, width: 41.6 mm, height: 19.9 mm, number of positions: 8, color: gray



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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/ 9 - Cable housing

3209507

<https://www.phoenixcontact.com/in/products/3209507>



Cable housing, pitch: 46.8 mm, depth: 36.8 mm, width: 46.8 mm, height: 19.9 mm, number of positions: 9, color: gray

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## PH 2,5/10 - Cable housing

3209769

<https://www.phoenixcontact.com/in/products/3209769>



Cable housing, pitch: 52 mm, depth: 36.8 mm, width: 52 mm, height: 19.9 mm, number of positions: 10, color: gray

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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/11 - Cable housing

3209772

<https://www.phoenixcontact.com/in/products/3209772>



Cable housing, pitch: 57.2 mm, depth: 36.8 mm, width: 57.2 mm, height: 19.9 mm, number of positions: 11, color: gray

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## PH 2,5/12 - Cable housing

3209785

<https://www.phoenixcontact.com/in/products/3209785>



Cable housing, pitch: 62.4 mm, depth: 36.8 mm, width: 62.4 mm, height: 19.9 mm, number of positions: 12, color: gray

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/13 - Cable housing

3209798

<https://www.phoenixcontact.com/in/products/3209798>



Cable housing, pitch: 67.6 mm, depth: 36.8 mm, width: 67.6 mm, height: 19.9 mm, number of positions: 13, color: gray

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## PH 2,5/14 - Cable housing

3209808

<https://www.phoenixcontact.com/in/products/3209808>



Cable housing, pitch: 72.8 mm, depth: 36.8 mm, width: 72.8 mm, height: 19.9 mm, number of positions: 14, color: gray

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

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<https://www.phoenixcontact.com/in/products/3210842>



## PH 2,5/15 - Cable housing

3209811

<https://www.phoenixcontact.com/in/products/3209811>



Cable housing, pitch: 78 mm, depth: 36.8 mm, width: 78 mm, height: 19.9 mm, number of positions: 15, color: gray

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

3061431

<https://www.phoenixcontact.com/in/products/3061431>



Flange cover, depth: 24.7 mm, width: 4.5 mm, height: 35.8 mm, color: gray

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## ST-BW - Actuation tool

1207608

<https://www.phoenixcontact.com/in/products/1207608>



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

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## SP-H 2,5/ 1-L - Plug

3210787

<https://www.phoenixcontact.com/in/products/3210787>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, color: gray

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>

## SP-H 2,5/ 1-L BU - Plug

3210790

<https://www.phoenixcontact.com/in/products/3210790>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: blue

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## SP-H 2,5/ 1-L GNYE - Plug

3210800

<https://www.phoenixcontact.com/in/products/3210800>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: green-yellow

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



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

3210813

<https://www.phoenixcontact.com/in/products/3210813>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: gray

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## SP-H 2,5/ 1-M BU - Plug

3210826

<https://www.phoenixcontact.com/in/products/3210826>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: blue

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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## SP-H 2,5/ 1-M GNYE - Plug

3210839

<https://www.phoenixcontact.com/in/products/3210839>



Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup>- 4 mm<sup>2</sup>, color: green-yellow

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## MPS-MT - Test plug

0201744

<https://www.phoenixcontact.com/in/products/0201744>



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



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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## MPS-IH WH - Insulating sleeve

0201663

<https://www.phoenixcontact.com/in/products/0201663>

Insulating sleeve, color: white



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## MPS-IH RD - Insulating sleeve

0201676

<https://www.phoenixcontact.com/in/products/0201676>

Insulating sleeve, color: red



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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## MPS-IH BU - Insulating sleeve

0201689

<https://www.phoenixcontact.com/in/products/0201689>

Insulating sleeve, color: blue



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## MPS-IH YE - Insulating sleeve

0201692

<https://www.phoenixcontact.com/in/products/0201692>

Insulating sleeve, color: yellow



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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## MPS-IH GN - Insulating sleeve

0201702

<https://www.phoenixcontact.com/in/products/0201702>

Insulating sleeve, color: green



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## MPS-IH GY - Insulating sleeve

0201728

<https://www.phoenixcontact.com/in/products/0201728>

Insulating sleeve, color: gray



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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



## MPS-IH BK - Insulating sleeve

0201731

<https://www.phoenixcontact.com/in/products/0201731>

Insulating sleeve, color: black



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

3002843

<https://www.phoenixcontact.com/in/products/3002843>

Insulating sleeve, color: white



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

3210842

<https://www.phoenixcontact.com/in/products/3210842>



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

3002856

<https://www.phoenixcontact.com/in/products/3002856>



Insulating sleeve, color: gray

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

3002869

<https://www.phoenixcontact.com/in/products/3002869>



Insulating sleeve, color: black

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

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<https://www.phoenixcontact.com/in/products/3210842>



## ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

<https://www.phoenixcontact.com/in/products/0808642>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

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## ZBF 5 CUS - Zack Marker strip, flat

0825025

<https://www.phoenixcontact.com/in/products/0825025>



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

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

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

0808671

<https://www.phoenixcontact.com/in/products/0808671>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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

0808697

<https://www.phoenixcontact.com/in/products/0808697>



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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

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## ZBF 5,LGS:GERADE ZAHLEN - Zack Marker strip, flat

0810821

<https://www.phoenixcontact.com/in/products/0810821>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive even numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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## ZBF 5,LGS:UNGERADE ZAHLEN - Zack Marker strip, flat

0810863

<https://www.phoenixcontact.com/in/products/0810863>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10



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

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## UC-TMF 5 - Marker for terminal blocks

0818153

<https://www.phoenixcontact.com/in/products/0818153>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 4.6 x 5.1 mm, Number of individual labels: 96

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## UC-TMF 5 CUS - Marker for terminal blocks

0824638

<https://www.phoenixcontact.com/in/products/0824638>



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: 5.2 mm, lettering field size: 4.6 x 5.1 mm, Number of individual labels: 96

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

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<https://www.phoenixcontact.com/in/products/3210842>



## UCT-TMF 5 - Marker for terminal blocks

0828744

<https://www.phoenixcontact.com/in/products/0828744>



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: snapped, for terminal block width: 5.2 mm, lettering field size: 4.4 x 4.7 mm, Number of individual labels: 72

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## UCT-TMF 5 CUS - Marker for terminal blocks

0829658

<https://www.phoenixcontact.com/in/products/0829658>



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: 5.2 mm, lettering field size: 4.4 x 4.7 mm, Number of individual labels: 72

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