

SPB 2,5/12 - Plug

3040216

<https://www.phoenixcontact.com/pc/products/3040216>



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Plug, nom. voltage: 500 V, nominal current: 24 A, number of positions: 12, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm²- 4 mm², color: gray

Your advantages

- Plug with bridging option, for use with basic terminal blocks

Commercial data

Item number	3040216
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	BE2144
Catalog page	Page 321 (C-1-2019)
GTIN	4017918833046
Weight per piece (including packing)	39.98 g
Weight per piece (excluding packing)	37.2 g
Customs tariff number	85366990
Country of origin	PL

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Technical data

Product properties

Product type	Terminal plug
Number of positions	12
Pitch	5.2 mm
Potentials	12

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 ²
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 61984
Conductor cross section rigid	0.08 mm ² ... 4 mm ²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with 4 mm ² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

Dimensions

Width	62.4 mm
Height	39 mm
Length	20 mm
Pitch	5.2 mm

Material specifications

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

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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

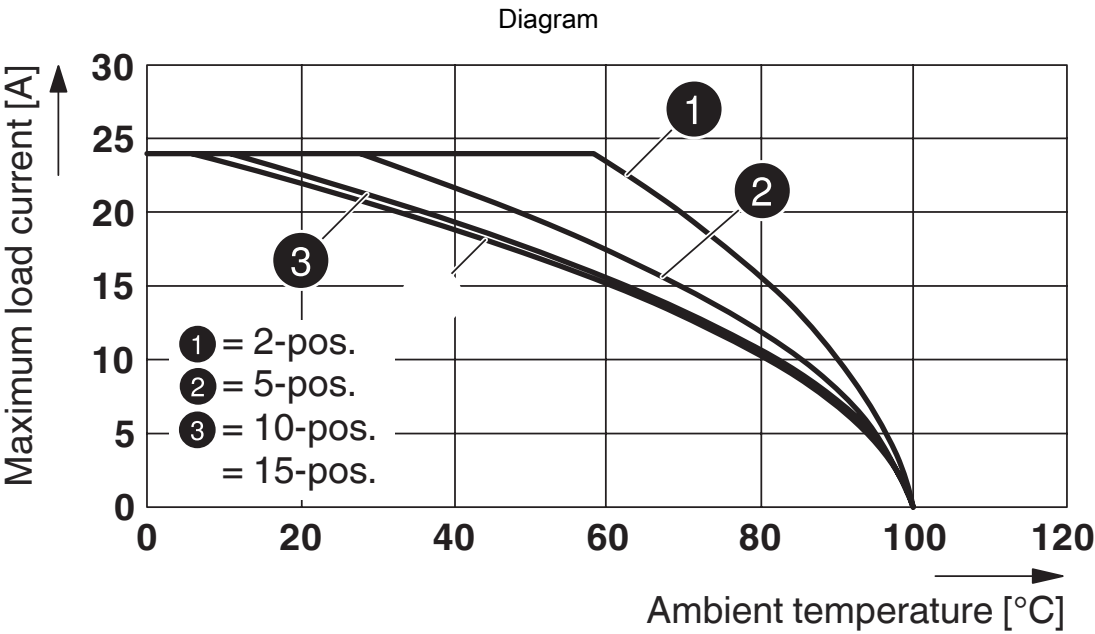
Ambient conditions

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 %

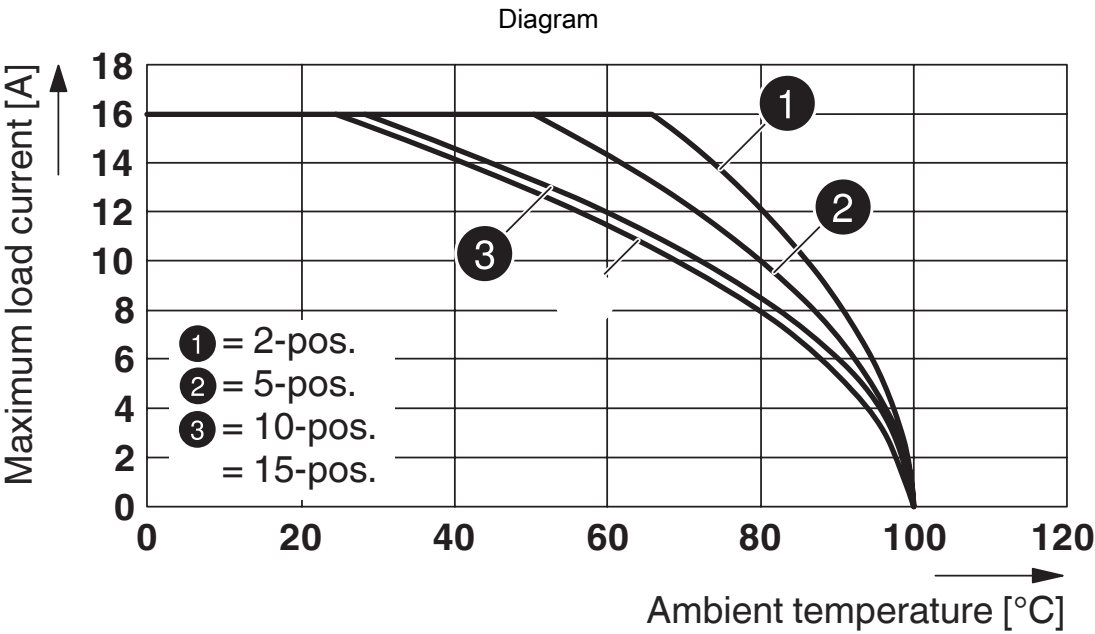
Standards and regulations

Connection in acc. with standard	IEC 61984
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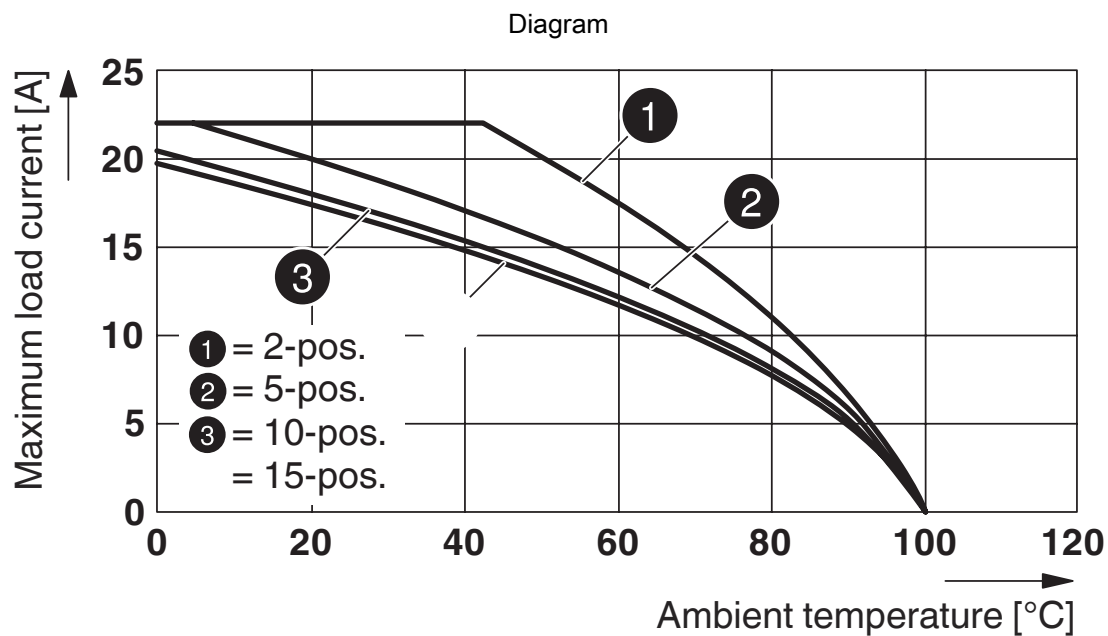
Drawings



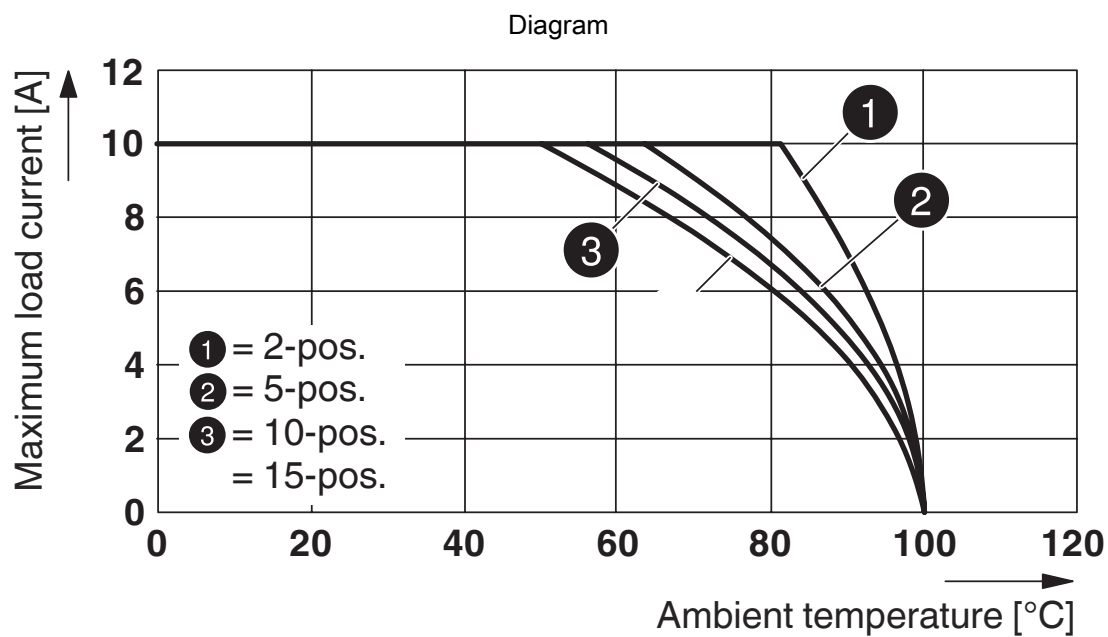
Derating curve for ST 2,5-QUATTRO/2P, ST 2,5-QUATTRO/4P and for all plug versions SP... .



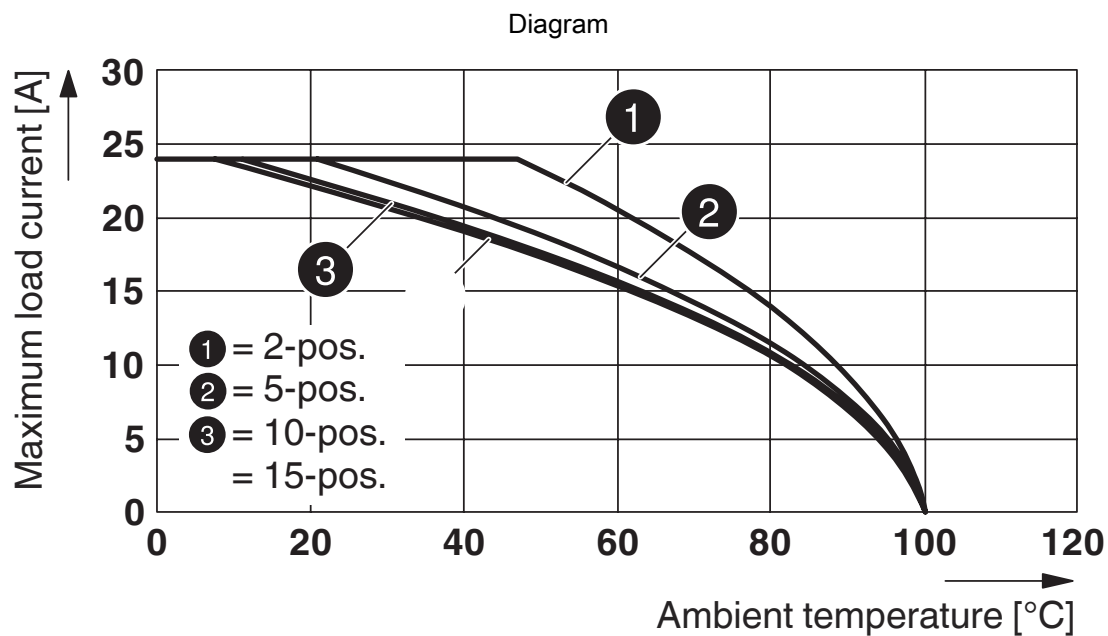
Derating curve for ST 2,5-TWIN-MT/1P, ST 2,5-TWIN-TG/1P and for all plug versions SP... .



Derating curve for STTB 2,5/ 2P, STTB 2,5/ 2P-PV and for all plug versions SP...



Derating curve for ST 2,5-4L/1P, ST 2,5-4L/2P and for all plug versions SP...



Derating curve for ST 2,5/ 1P, ST 2,5/ 2P, ST 2,5-TWIN/ 1P and for all plug versions SP...

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3040216>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	300 V	20 A	28 - 12	-
Use group C				
Use group D	600 V	5 A	28 - 12	-

 EAC Approval ID: RU C-DE.BL08.B.00511

 LR Approval ID: LR2042068TA

 RS Approval ID: 22.44.01.00083.250
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 BV Approval ID: 27721/B0 BV

 cULus Recognized Approval ID: E60425
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 cULus Recognized Approval ID: E60425
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DNV Approval ID: TAE00001CS

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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

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

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Accessories

i Note: Applying some accessories below might limit this product.

FBS 2-5 - Plug-in bridge

3030161

<https://www.phoenixcontact.com/pc/products/3030161>



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, length: 23 mm, color: red

i Max. current carrying capacity: 24 A

FBS 3-5 - Plug-in bridge

3030174

<https://www.phoenixcontact.com/pc/products/3030174>



Plug-in bridge, pitch: 5.2 mm, number of positions: 3, length: 23 mm, color: red

i Max. current carrying capacity: 24 A

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FBS 4-5 - Plug-in bridge

3030187

<https://www.phoenixcontact.com/pc/products/3030187>



Plug-in bridge, pitch: 5.2 mm, number of positions: 4, length: 23 mm, color: red

 Max. current carrying capacity: 24 A

FBS 5-5 - Plug-in bridge

3030190

<https://www.phoenixcontact.com/pc/products/3030190>



Plug-in bridge, pitch: 5.2 mm, number of positions: 5, length: 23 mm, color: red

 Max. current carrying capacity: 24 A

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FBS 10-5 - Plug-in bridge

3030213

<https://www.phoenixcontact.com/pc/products/3030213>



Plug-in bridge, pitch: 5.2 mm, number of positions: 10, length: 23 mm, color: red

 Max. current carrying capacity: 24 A

FBS 20-5 - Plug-in bridge

3030226

<https://www.phoenixcontact.com/pc/products/3030226>



Plug-in bridge, pitch: 5.2 mm, number of positions: 20, color: red

 Max. current carrying capacity: 24 A

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FBS 50-5 - Plug-in bridge

3038930

<https://www.phoenixcontact.com/pc/products/3038930>



Plug-in bridge, pitch: 5.2 mm, number of positions: 50, color: red

 Max. current carrying capacity: 24 A

FBS 2-5 BU - Plug-in bridge

3036877

<https://www.phoenixcontact.com/pc/products/3036877>



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, color: blue

 Max. current carrying capacity: 24 A

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FBS 3-5 BU - Plug-in bridge

3036880

<https://www.phoenixcontact.com/pc/products/3036880>



Plug-in bridge, pitch: 5.2 mm, number of positions: 3, color: blue

 Max. current carrying capacity: 24 A

FBS 4-5 BU - Plug-in bridge

3036893

<https://www.phoenixcontact.com/pc/products/3036893>



Plug-in bridge, pitch: 5.2 mm, number of positions: 4, color: blue

 Max. current carrying capacity: 24 A

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FBS 5-5 BU - Plug-in bridge

3036903

<https://www.phoenixcontact.com/pc/products/3036903>



Plug-in bridge, pitch: 5.2 mm, number of positions: 5, color: blue

 Max. current carrying capacity: 24 A

FBS 10-5 BU - Plug-in bridge

3036916

<https://www.phoenixcontact.com/pc/products/3036916>



Plug-in bridge, pitch: 5.2 mm, number of positions: 10, color: blue

 Max. current carrying capacity: 24 A

SPB 2,5/12 - Plug

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FBS 20-5 BU - Plug-in bridge

3036929

<https://www.phoenixcontact.com/pc/products/3036929>



Plug-in bridge, pitch: 5.2 mm, number of positions: 20, color: blue

 Max. current carrying capacity: 24 A

FBS 50-5 BU - Plug-in bridge

3032114

<https://www.phoenixcontact.com/pc/products/3032114>



Plug-in bridge, pitch: 5.2 mm, number of positions: 50, color: blue

 Max. current carrying capacity: 24 A

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FBS 2-5 GY - Plug-in bridge

3038969

<https://www.phoenixcontact.com/pc/products/3038969>



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, color: gray

 Max. current carrying capacity: 24 A

FBS 3-5 GY - Plug-in bridge

3038972

<https://www.phoenixcontact.com/pc/products/3038972>



Plug-in bridge, pitch: 5.2 mm, number of positions: 3, color: gray

 Max. current carrying capacity: 24 A

SPB 2,5/12 - Plug

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FBS 4-5 GY - Plug-in bridge

3038985

<https://www.phoenixcontact.com/pc/products/3038985>



Plug-in bridge, pitch: 5.2 mm, number of positions: 4, color: gray

 Max. current carrying capacity: 24 A

FBS 5-5 GY - Plug-in bridge

3038998

<https://www.phoenixcontact.com/pc/products/3038998>



Plug-in bridge, pitch: 5.2 mm, number of positions: 5, color: gray

 Max. current carrying capacity: 24 A

SPB 2,5/12 - Plug

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FBS 10-5 GY - Plug-in bridge

3039007

<https://www.phoenixcontact.com/pc/products/3039007>

Plug-in bridge, pitch: 5.2 mm, number of positions: 10, color: gray



 Max. current carrying capacity: 24 A

FBS 20-5 GY - Plug-in bridge

3038671

<https://www.phoenixcontact.com/pc/products/3038671>

Plug-in bridge, pitch: 5.2 mm, number of positions: 20, color: gray



 Max. current carrying capacity: 24 A

SPB 2,5/12 - Plug

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<https://www.phoenixcontact.com/pc/products/3040216>



FBS 50-5 GY - Plug-in bridge

3032127

<https://www.phoenixcontact.com/pc/products/3032127>



Plug-in bridge, pitch: 5.2 mm, number of positions: 50, color: gray

 Max. current carrying capacity: 24 A

FBSR 2-5 - Plug-in bridge

3033702

<https://www.phoenixcontact.com/pc/products/3033702>



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, color: red

 Max. current carrying capacity: 17.5 A

SPB 2,5/12 - Plug

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FBSR 3-5 - Plug-in bridge

3001591

<https://www.phoenixcontact.com/pc/products/3001591>



Plug-in bridge, pitch: 5.2 mm, number of positions: 3, color: red

 Max. current carrying capacity: 17.5 A

FBSR 4-5 - Plug-in bridge

3001592

<https://www.phoenixcontact.com/pc/products/3001592>



Plug-in bridge, pitch: 5.2 mm, number of positions: 4, color: red

 Max. current carrying capacity: 17.5 A

SPB 2,5/12 - Plug

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FBSR 5-5 - Plug-in bridge

3001593

<https://www.phoenixcontact.com/pc/products/3001593>



Plug-in bridge, pitch: 5.2 mm, number of positions: 5, color: red

 Max. current carrying capacity: 17.5 A

FBSR 10-5 - Plug-in bridge

3033710

<https://www.phoenixcontact.com/pc/products/3033710>



Plug-in bridge, pitch: 5.2 mm, number of positions: 10, color: red

 Max. current carrying capacity: 17.5 A

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PZ/2 - Strain relief

3040627

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



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

PZ/4 - Strain relief

3040643

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



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

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PR - Latching

3040559

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



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

PR/2 - Latching

3040630

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



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

SPB 2,5/12 - Plug

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<https://www.phoenixcontact.com/pc/products/3040216>



PRT/2 - Latching

3040631

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



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

PRZ - Latching

3040614

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



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

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DFS-SPB 2,5 - Flange cover

3061444

<https://www.phoenixcontact.com/pc/products/3061444>



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

B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/pc/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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<https://www.phoenixcontact.com/pc/products/3040216>



X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/pc/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

ST-BW - Actuation tool

1207608

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



Actuation tool, for all 2.5 mm² - 4.0 mm² spring-cages

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ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

<https://www.phoenixcontact.com/pc/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

ZBF 5 CUS - Zack Marker strip, flat

0825025

<https://www.phoenixcontact.com/pc/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

SPB 2,5/12 - Plug

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

0808671

<https://www.phoenixcontact.com/pc/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

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

0808697

<https://www.phoenixcontact.com/pc/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

SPB 2,5/12 - Plug

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

0810821

<https://www.phoenixcontact.com/pc/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

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

0810863

<https://www.phoenixcontact.com/pc/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

SPB 2,5/12 - Plug

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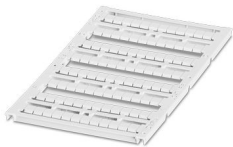
<https://www.phoenixcontact.com/pc/products/3040216>



UC-TMF 5 - Marker for terminal blocks

0818153

<https://www.phoenixcontact.com/pc/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

UC-TMF 5 CUS - Marker for terminal blocks

0824638

<https://www.phoenixcontact.com/pc/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

SPB 2,5/12 - Plug

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UCT-TMF 5 - Marker for terminal blocks

0828744

<https://www.phoenixcontact.com/pc/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

UCT-TMF 5 CUS - Marker for terminal blocks

0829658

<https://www.phoenixcontact.com/pc/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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ISH 2,5/0,2 - Insulating sleeve

3002843

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

Insulating sleeve, color: white



ISH 2,5/0,5 - Insulating sleeve

3002856

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

Insulating sleeve, color: gray



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ISH 2,5/1,0 - Insulating sleeve

3002869

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



Insulating sleeve, color: black

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