

Plug - SPDB 2,5/10 - 3040494

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Plug, nom. voltage: 500 V, nominal current: 24 A, connection method: Spring-cage connection, Plug connection, number of connections: 10, number of positions: 10, cross section: 0.08 mm² - 4 mm², AWG: 28 - 12, width: 52 mm, height: 39 mm, color: gray

Why buy this product

- Plug with bridging option, for use with basic terminal blocks
- Tested for railway applications

Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 833176
GTIN	4017918833176
Weight per Piece (excluding packing)	51.210 g
Custom tariff number	85366990
Country of origin	Poland

Technical data

General

Number of positions	10
Number of levels	1
Number of connections	10
Nominal cross section	2.5 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry

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Technical data

General

	Machine building
	Plant engineering
Maximum load current	24 A (with a 2.5 mm ² conductor cross section)
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W
Maximum load current	24 A (with 4 mm ² conductor cross section)
Nominal current I _N	24 A
Nominal voltage U _N	500 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	52 mm
Length	32.7 mm
Height	39 mm
	24 mm
Pitch	5.2 mm

Connection data

Connection method	Spring-cage connection
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Technical data

Connection data

Connection in acc. with standard	IEC 61984
Conductor cross section solid min.	0.08 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm ²
Conductor cross section flexible max.	2.5 mm ²
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 ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm ²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm ²
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
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3

Environmental Product Compliance

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

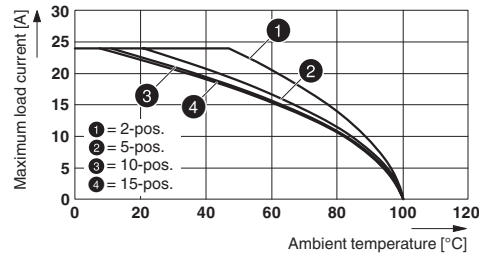
Drawings

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Circuit diagram

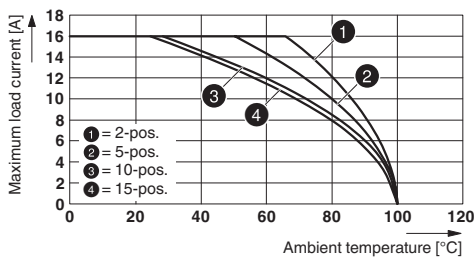


Diagram



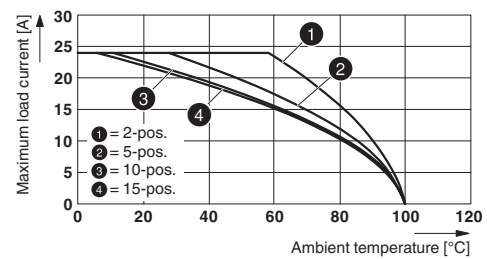
Derating curve for ST 2,5/ 1P, ST 2,5/ 2P, ST 2,5-TWIN/ 1P and for all plug versions SP...

Diagram



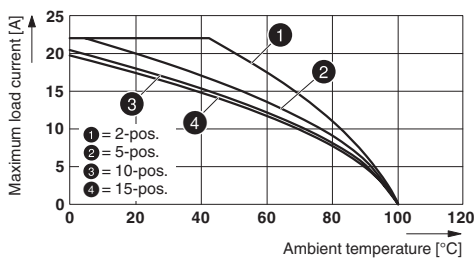
Derating curve for ST 2,5-TWIN-MT/1P, ST 2,5-TWIN-TG/1P and for all plug versions SP...

Diagram



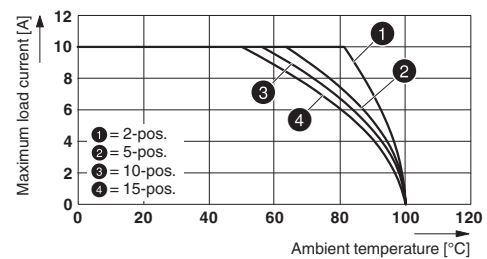
Derating curve for ST 2,5-QUATTRO/2P, ST 2,5-QUATTRO/4P and for all plug versions SP...

Diagram



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

Diagram



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

Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	27260700

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Classifications

eCl@ss

eCl@ss 6.0	27141100
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

Approvals

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

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	20 A	20 A
mm ² /AWG/kcmil	24-12	24-12	24-12

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Approvals

LR		http://www.lr.org/en	05/20042
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BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	27721/A0 BV
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EAC			EAC-Zulassung
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DNV GL		http://exchange.dnv.com/tari/	TAE00001CS
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	20 A	20 A
mm ² /AWG/kcmil	26-12	26-12	26-12

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D	B	C
Nominal voltage UN	600 V	300 V	300 V
Nominal current IN	5 A	20 A	20 A
mm ² /AWG/kcmil	26-12	26-12	26-12

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

Accessories

Flange

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Accessories

Flange cover - DFS-SPDB 2,5 - 3061457



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

Insulating sleeve

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



Insulating sleeve, color: white

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



Insulating sleeve, color: gray

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



Insulating sleeve, color: black

Jumper

Plug-in bridge - FBS 2-5 - 3030161



Plug-in bridge, pitch: 5.2 mm, length: 22.7 mm, width: 9 mm, number of positions: 2, color: red

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Accessories

Plug-in bridge - FBS 3-5 - 3030174



Plug-in bridge, pitch: 5.2 mm, length: 22.7 mm, width: 14.2 mm, number of positions: 3, color: red

Plug-in bridge - FBS 4-5 - 3030187



Plug-in bridge, pitch: 5.2 mm, length: 22.7 mm, width: 19.4 mm, number of positions: 4, color: red

Plug-in bridge - FBS 5-5 - 3030190



Plug-in bridge, pitch: 5.2 mm, length: 22.7 mm, width: 24.6 mm, number of positions: 5, color: red

Plug-in bridge - FBS 10-5 - 3030213



Plug-in bridge, pitch: 5.2 mm, length: 22.7 mm, width: 50.6 mm, number of positions: 10, color: red

Plug-in bridge - FBS 20-5 - 3030226



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

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Accessories

Plug-in bridge - FBS 50-5 - 3038930



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

Plug-in bridge - FBS 2-5 BU - 3036877



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

Plug-in bridge - FBS 3-5 BU - 3036880



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

Plug-in bridge - FBS 4-5 BU - 3036893



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

Plug-in bridge - FBS 5-5 BU - 3036903



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

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Accessories

Plug-in bridge - FBS 10-5 BU - 3036916



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

Plug-in bridge - FBS 20-5 BU - 3036929



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

Plug-in bridge - FBS 50-5 BU - 3032114



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

Plug-in bridge - FBS 2-5 GY - 3038969



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

Plug-in bridge - FBS 3-5 GY - 3038972



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

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Accessories

Plug-in bridge - FBS 4-5 GY - 3038985



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

Plug-in bridge - FBS 5-5 GY - 3038998



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

Plug-in bridge - FBS 10-5 GY - 3039007



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

Plug-in bridge - FBS 20-5 GY - 3038671



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

Plug-in bridge - FBS 50-5 GY - 3032127



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

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Accessories

Plug-in bridge - FBSR 2-5 - 3033702



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

Plug-in bridge - FBSR 3-5 - 3001591



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

Plug-in bridge - FBSR 4-5 - 3001592



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

Plug-in bridge - FBSR 5-5 - 3001593



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

Plug-in bridge - FBSR 10-5 - 3033710



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

Labeled terminal marker

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Accessories

Zack Marker strip, flat - ZBF 5 CUS - 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

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



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: 5 mm, lettering field size: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



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: 5 mm, lettering field size: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



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: 5 mm, lettering field size: 5.15 x 5.15 mm

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Accessories

Marker for terminal blocks - UC-TMF 5 CUS - 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

Marker for terminal blocks - UCT-TMF 5 CUS - 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

Marker pen

Marker pen - B-STIFT - 1051993



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

Marker pen - X-PEN 0,35 - 0811228



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

Mounting material

Strain relief - PDZ/2 - 3040562



Strain relief, length: 28.9 mm, width: 9.6 mm, number of positions: 2, color: black

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Accessories

Strain relief - PDZ/4 - 3040575



Strain relief, length: 28.9 mm, width: 19.8 mm, number of positions: 4, color: black

Latching - PR - 3040559



Latching, length: 29.8 mm, width: 10 mm, number of positions: 1, color: orange

Latching - PR/2 - 3040630



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

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

Latching - PRZ - 3040614



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

Screwdriver tools

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Accessories

Screwdriver - ST-BW - 1207608



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

Shield connection

Shield connection clip - PSH 3- 6 - 3040591



Shield connection clip, color: black

Shield connection clip - PSH 5-10 - 3040601



Shield connection clip, color: black

Terminal marking

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm

Marker for terminal blocks - UC-TMF 5 - 0818153



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 5.1 mm

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Accessories

Marker for terminal blocks - UCT-TMF 5 - 0828744



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, TOPMARK NEO, TOPMARK LASER, mounting type: snap into flat marker groove, for terminal block width: 5.2 mm, lettering field size: 4.4 x 4.7 mm
