

SP 4/ 9 - Plug

3042971

<https://www.phoenixcontact.com/us/products/3042971>



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Plug, nom. voltage: 800 V, nominal current: 32 A, number of positions: 9, connection method: Spring-cage connection, Rated cross section: 4 mm², cross section: 0.08 mm²- 6 mm², color: gray

Your advantages

- Large-surface labeling option
- Practical coding option
- Tested for railway applications

Commercial data

Item number	3042971
Packing unit	25 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BE02
Product key	BE2144
GTIN	4017918956301
Weight per piece (including packing)	37.82 g
Weight per piece (excluding packing)	35 g
Customs tariff number	85366990
Country of origin	PL

Technical data

Notes

General

Note	With a free-hanging connection, an insulating foil has to be placed between the plug connection and electrically conductive surfaces.
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Product properties

Product type	Terminal plug
Number of positions	9
Pitch	6.2 mm

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
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Connection data

Nominal cross section	4 mm ²
Connection method	Spring-cage connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A4
Connection in acc. with standard	IEC 61984
Conductor cross-section rigid	0.08 mm ² ... 6 mm ²
Cross section AWG	28 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm ² ... 4 mm ²
Conductor cross-section, flexible [AWG]	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 4 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Nominal current	32 A
Maximum load current	32 A (with 6 mm ² conductor cross-section)
Nominal voltage	800 V
Nominal cross section	4 mm ²

Dimensions

Width	55.8 mm
Height	21 mm
Depth	41.5 mm
Length	21 mm

Pitch	6.2 mm
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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

Electrical tests

Surge voltage test

Result	Test passed
Short-time withstand current 4 mm ²	0.48 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

Mechanical tests

Attachment on the carrier

Result	Test passed
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Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Spectrum	Long life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.964 (m/s ²)/Hz

SP 4/ 9 - Plug



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Acceleration	0.58g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

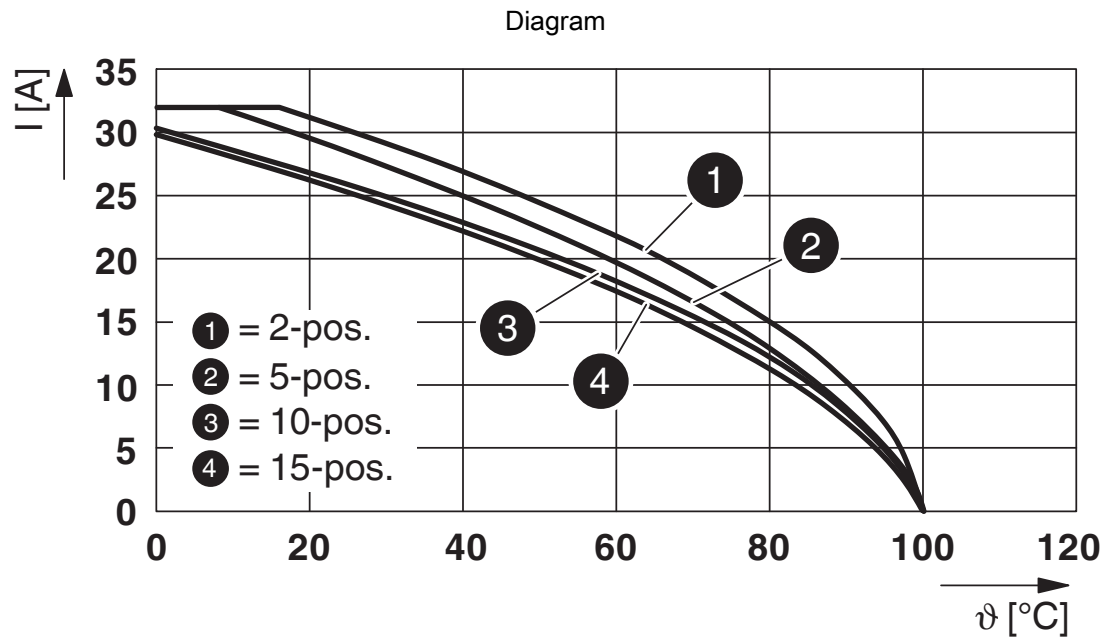
Ambient conditions

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

Standards and regulations

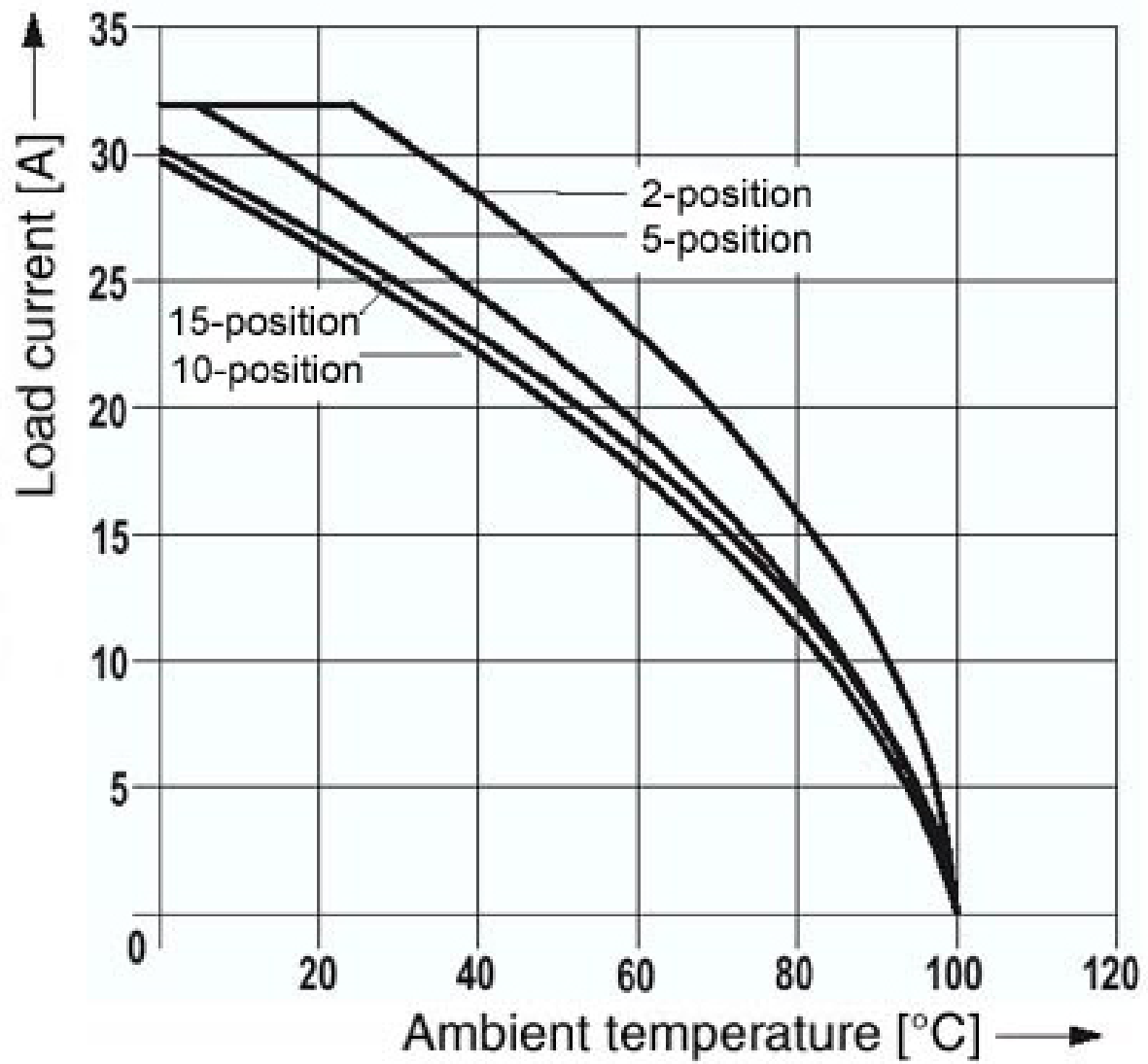
Connection in acc. with standard	IEC 61984
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Drawings



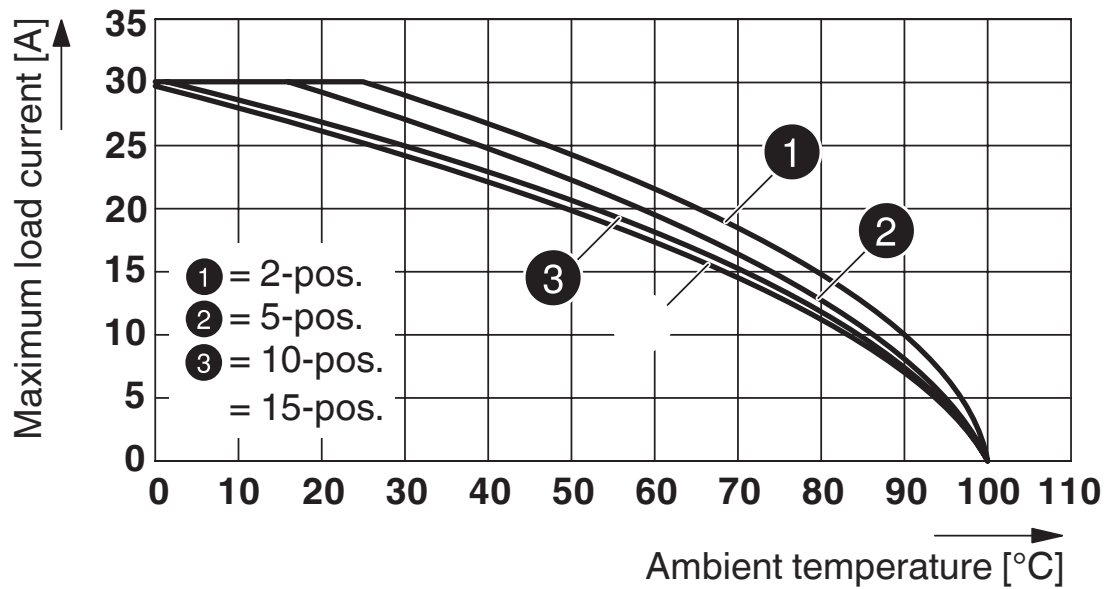
Derating curve for spring-cage terminals ST 4/1P.. and ST 4/2P.. with all plug versions SP 4/... . The derating curves are determined by multiplying the values of the base curves by the factor 0.8.

Diagram



Derating curve for the spring-cage terminal with all plug versions SP 4/... .

Diagram



Derating curve for ST 4/ 1P and for all plug versions SP...

Circuit diagram



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3042971

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3042971>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	30 A	24 - 12	-
C				
	600 V	30 A	24 - 12	-

 IECEE CB Scheme Approval ID: DE1-62736/B1/B2				
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 EAC Approval ID: KZ7500651131219505				
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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	30 A	28 - 10	-
C				
	600 V	30 A	28 - 10	-

 VDE Zeichengenehmigung Approval ID: 40019518				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Only flexible conductors	800 V	-	-	0.2 - 4
Only rigid conductors	800 V	-	-	0.2 - 6

SP 4/ 9 - Plug



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Classifications

ECLASS

ECLASS-13.0	27250306
ECLASS-15.0	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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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com