

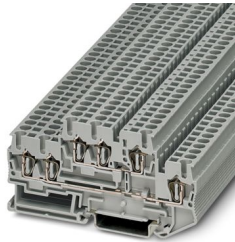
STTB 2,5-TWIN - Double-level spring-cage terminal block



3038516

<https://www.phoenixcontact.com/us/products/3038516>

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Double-level spring-cage terminal block, nom. voltage: 500 V, nominal current: 22 A, connection method: Spring-cage connection, 1st and 2nd level, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Simple wiring of very small, flexible conductors
- Enables one-handed wiring
- No restriction on cross-sections when using conductors with ferrules
- Reliable vibration resistance thanks to spring-loaded contact elements
- High space savings thanks to the compact integration of two separate circuits in a single terminal block
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories

Commercial data

Item number	3038516
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2114
GTIN	4017918908393
Weight per piece (including packing)	14.96 g
Weight per piece (excluding packing)	14.866 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	Multi-level terminal block
Product family	ST
Area of application	Railway industry
	Machine building
	Plant engineering
Number of connections	6
Number of rows	2
Potentials	2

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Nominal cross section	2.5 mm ²

1st and 2nd level

Connection method	Spring-cage connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
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 cross section	2.5 mm ²
Nominal current	22 A
Maximum load current	26 A (with 4 mm ² conductor cross-section)
Nominal voltage	500 V

Dimensions

Width	5.2 mm
End cover width	2.2 mm

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Height	91.5 mm
Depth on NS 35/7,5	47.5 mm
Depth on NS 35/15	55 mm

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
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
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

Test voltage setpoint	7.3 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature \leq 45 K
Result	Test passed
	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross-section/weight	0.14 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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 ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)

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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 60947-7-1
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Mounting

Mounting type	NS 35/7,5
	NS 35/15

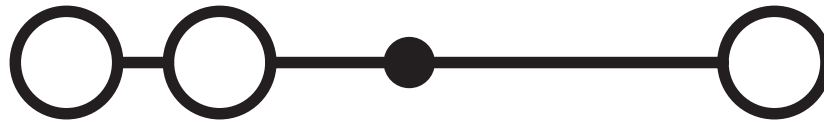
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Drawings

Circuit diagram



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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3038516>

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


 IECEE CB Scheme Approval ID: DE1-66179				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	500 V	22 A	-	0.2 - 2.5


 EAC Approval ID: RU C-DE.BL08.B.00644				
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 KR Approval ID: HMB17372-EL002				
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 NK Approval ID: 09 ME 140				
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 EAC Approval ID: KZ7500651131219505				
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 VDE Zeichengenehmigung Approval ID: 40009033				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	500 V	22 A	-	0.2 - 2.5

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				

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	300 V	20 A	28 - 12	-
C				
	300 V	20 A	28 - 12	-

DNV

Approval ID: TAE00001CS

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Classifications

ECLASS

ECLASS-13.0	27250102
ECLASS-15.0	27250102

ETIM

ETIM 10.0	EC000897
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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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EF3.1 Climate Change

CO2e kg	0.068 kg CO2e
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