

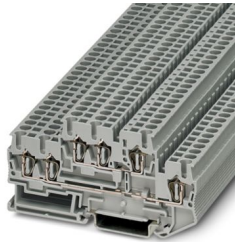
# STTB 2,5-TWIN - Double-level spring-cage terminal block



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 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- Compact design for maximum space savings
- Corrosion-free terminal points
- Low contact resistance
- Tested for railway applications

## Commercial data

Item number	3038516
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2114
Catalog page	Page 212 (C-1-2019)
GTIN	4017918908393
Weight per piece (including packing)	14.964 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 <sup>2</sup>

### 1st and 2nd level

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 <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	22 A
Maximum load current	26 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
End cover width	2.2 mm
Height	91.5 mm

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

## Material specifications

Color	gray
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))	125 °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)	27,5 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

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
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA
Short-time withstand current 4 mm <sup>2</sup>	0.48 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 rpm
Revolutions	135
Conductor cross section/weight	0.08 mm <sup>2</sup> / 0.1 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 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):2008-03
Frequency	5 Hz ... 150 Hz
Acceleration	5g (25 Hz ... 150 Hz)
Test duration per axis	2 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	50 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)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

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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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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250102

### ETIM

ETIM 9.0	EC000897
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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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