

TB 2,5-2L I - Multi-level terminal block



3246528

<https://www.phoenixcontact.com/gb/products/3246528>

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Multi-level terminal block, upper and lower level bridgeable, nom. voltage: 500 V, nominal current: 21 A, Thermal continuous current I_{th} : 21 A, connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.5 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, NS 32, color: dark gray

Commercial data

Item number	3246528
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE1414
Product key	BEK214
GTIN	4046356608725
Weight per piece (including packing)	12.654 g
Weight per piece (excluding packing)	11.89 g
Customs tariff number	85369010
Country of origin	CN

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3246528

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Technical data

Product properties

Product type	Multi-level terminal block
Product family	TB
Number of positions	2
Number of connections	4
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	2
Nominal cross section	2.5 mm ²
Rated cross section AWG	12
Connection method	Screw connection
Screw thread	M2,5
Tightening torque	0.4 ... 0.5 Nm
Stripping length	8 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.5 mm ² ... 4 mm ²
Cross section AWG	20 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm ² ... 1.5 mm ²
Cross-section with insertion bridge, rigid	0.5 mm ² ... 2.5 mm ²
Cross-section with insertion bridge, flexible	0.5 mm ² ... 2.5 mm ²
Cross-section with insertion bridge, flexible, with ferrule without plastic sleeve	0.5 mm ² (1.5 mm ²)
Cross-section with insertion bridge, flexible, with ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
2 conductors with same cross section, solid	0.5 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG rigid	20 ... 14 (converted acc. to IEC)
2 conductors with same cross section, flexible	0.5 mm ² ... 1.5 mm ²
2 conductors with the same cross-section AWG flexible	20 ... 14 (converted acc. to IEC)

TB 2,5-2L I - Multi-level terminal block



3246528

<https://www.phoenixcontact.com/gb/products/3246528>

2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm ² ... 1 mm ²
Thermal continuous current I _{th}	21 A
Nominal current	21 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	5.2 mm
End cover width	2.5 mm
Height	67 mm
Depth on NS 32	67 mm
Depth on NS 35/7,5	62 mm
Depth on NS 35/15	69.5 mm

Material specifications

Color	traffic grey B (RAL 7043)
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 ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

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3246528

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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 32/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	0.5 mm ² / 0.3 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Result	Test passed

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):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

Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

TB 2,5-2L I - Multi-level terminal block



3246528

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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
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
	NS 32

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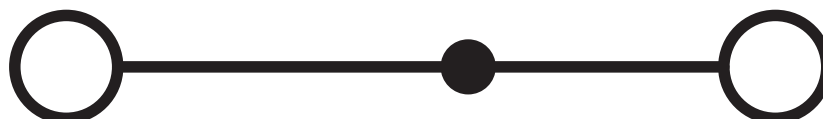


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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/3246528>



EAC

Approval ID: KZ7500651131219505



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	20 A	20 - 12	-
C				
	300 V	20 A	20 - 12	-
D				
	600 V	5 A	20 - 12	-

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3246528

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Classifications

ECLASS

ECLASS-13.0	27250102
ECLASS-15.0	27250102

ETIM

ETIM 9.0	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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Accessories

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

INB 10-5 - Insertion bridge

3246175

<https://www.phoenixcontact.com/gb/products/3246175>



Insertion bridge, Bridging in the terminal point, pitch: 5 mm, number of positions: 10, color: gray

i Max. current carrying capacity: 21 A

SCBI 10-5 N W - Screw bridge

3000833

<https://www.phoenixcontact.com/gb/products/3000833>



Screw bridge, with spring washer and insulating collar, number of positions: 10, color: silver-colored

i Max. current carrying capacity: 21 A

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D-TB 2,5/4-2L - Cover

3059964

<https://www.phoenixcontact.com/gb/products/3059964>

Cover, depth: 52 mm, width: 2.5 mm, height: 67.2 mm, color: dark gray



TS-TB-2L - Insulation plate

3062841

<https://www.phoenixcontact.com/gb/products/3062841>

Insulation plate, for electrical isolation of neighboring bridges in the terminal center, depth: 14 mm, width: 0.5 mm, height: 16 mm, color: dark gray



TB 2,5-2L I - Multi-level terminal block

3246528

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DP-TB-2L - Spacer plate

3059977

<https://www.phoenixcontact.com/gb/products/3059977>

Spacer plate, compensates for the offset at the lower level when standard terminal blocks are mounted side-by-side, depth: 25 mm, width: 2.5 mm, height: 67.2 mm, color: dark gray



UM-TM (5X10) - Marker for terminal blocks

0830913

<https://www.phoenixcontact.com/gb/products/0830913>

Marker for terminal blocks, Strip, white, unmarked, 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: latching, Number of individual labels: 24, text field height: 10 mm, text field width: 5 mm



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3246528

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NS 32 PERF 2000MM-VPE 10 - DIN rail perforated

1201002

<https://www.phoenixcontact.com/gb/products/1201002>



DIN rail perforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver

NS 32 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201015

<https://www.phoenixcontact.com/gb/products/1201015>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver-colored

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MPS-MT - Test plug

0201744

<https://www.phoenixcontact.com/gb/products/0201744>



Test plug, with solder connection up to 1 mm² conductor cross-section, number of positions: 1, color: gray

MPS-IH WH - Insulating sleeve

0201663

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Insulating sleeve, color: white



TB 2,5-2L I - Multi-level terminal block

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MPS-IH RD - Insulating sleeve

0201676

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Insulating sleeve, color: red

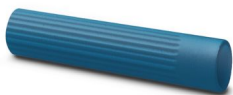


MPS-IH BU - Insulating sleeve

0201689

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Insulating sleeve, color: blue



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3246528

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MPS-IH YE - Insulating sleeve

0201692

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Insulating sleeve, color: yellow



MPS-IH GN - Insulating sleeve

0201702

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Insulating sleeve, color: green



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MPS-IH GY - Insulating sleeve

0201728

<https://www.phoenixcontact.com/gb/products/0201728>

Insulating sleeve, color: gray



MPS-IH BK - Insulating sleeve

0201731

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Insulating sleeve, color: black



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SZS 0,6X3,5 VDE - Screwdriver

1212602

<https://www.phoenixcontact.com/gb/products/1212602>



Screwdriver, slot-headed, VDE insulated, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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