

PT 2,5-3L BU - Multi-level terminal block



3210509

<https://www.phoenixcontact.com/pc/products/3210509>

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Multi-level terminal block, nom. voltage: 500 V, nominal current: 20 A, number of connections: 6, connection method: Push-in connection, 1st, 2nd and 3rd level, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The compact design and front connection enable wiring in a confined space

- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- Tested for railway applications

Commercial data

Item number	3210509
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	BE2215
Catalog page	Page 73 (C-1-2019)
GTIN	4046356422581
Weight per piece (including packing)	18.193 g
Weight per piece (excluding packing)	18.193 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	Multi-level terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
Number of connections	6
Number of rows	3
Potentials	3

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

1st, 2nd and 3rd level

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 4 mm ²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 4 mm ²
Conductor cross section, flexible [AWG]	26 ... 12 (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 current	20 A
Maximum load current	24 A (with 4 mm ² conductor cross section, rigid)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

1st, 2nd and 3rd level Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm ² ... 4 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm ² ... 2.5 mm ²

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Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3211647 D-PT 2,5-3L
	1204517 SZF 1-0,6X3,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-5 / 3030161
	Plug-in bridge / FBS 3-5 / 3030174
	Plug-in bridge / FBS 4-5 / 3030187
	Plug-in bridge / FBS 5-5 / 3030190
	Plug-in bridge / FBS 10-5 / 3030213
	Plug-in bridge / FBS 20-5 / 3030226
Bridge data	14.5 A / 2.5 mm ²
Ex temperature increase	40 K (17 A / 2.5 mm ²)
Rated voltage	440 V
for bridging with bridge	440 V
- At bridging between non-adjacent terminal blocks	352 V
- At bridging between non-adjacent terminal blocks via PE terminal block	352 V
- At cut-to-length bridging	166 V
- At cut-to-length bridging with cover	352 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

Rated current	17 A
Maximum load current	21 A

Ex connection data General

Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.14 mm ² ... 4 mm ²
Connection capacity AWG	26 ... 12
Connection capacity flexible	0.14 mm ² ... 2.5 mm ²
Connection capacity AWG	26 ... 14
output	(Permanent)

Ex level Level 1

Contact resistance	1.2 mΩ
output	(Permanent)

Ex level Level 2

Contact resistance	1.1 mΩ
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output	(Permanent)
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Ex level Level 3

Contact resistance	0.8 mΩ
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Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	102 mm
Depth on NS 35/7,5	58 mm
Depth on NS 35/15	65.5 mm

Material specifications

Color	blue
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 ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Short-time withstand current 4 mm ²	0.48 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

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3210509

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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 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	0.14 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):2008-03
Spectrum	Service 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) ² /Hz
Acceleration	0.58g
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

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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, no longer than 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

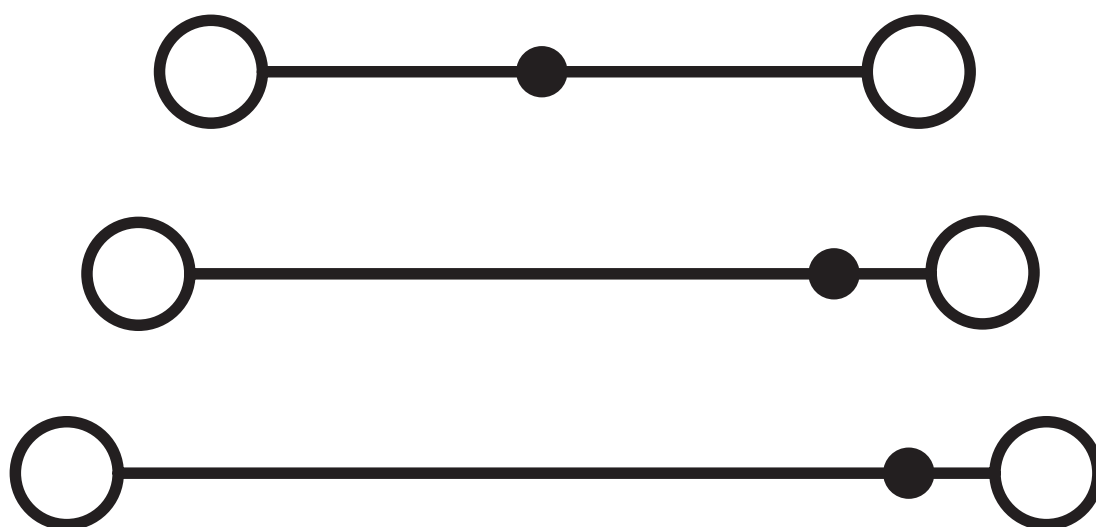
Connection in acc. with standard	IEC 60947-7-1
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Mounting

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

Drawings

Circuit diagram



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3210509

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3210509>

DNV

Approval ID: TAE00003JE



CSA

Approval ID: 2030668

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	20 A	26 - 12	-
Use group C				
	300 V	20 A	26 - 12	-
Use group D				
	600 V	5 A	26 - 12	-



IECEE CB Scheme

Approval ID: DE1-66980

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	500 V	20 A	-	0.2 - 2.5



LR

Approval ID: LR2371832TA



NK

Approval ID: 14ME0912



BV

Approval ID: 25278/C1 BV



VDE Zeichengenehmigung

Approval ID: 40032222

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	500 V	20 A	-	0.2 - 2.5

ABS

Approval ID: 21-2192245-PDA

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3210509

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LR
Approval ID: 14/20056



cULus Recognized
Approval ID: E60425



cULus Recognized
Approval ID: E60425



EAC Ex
Approval ID: RU C-DE.AB72.B.02351



IECEx
Approval ID: IECEx SEV13.0005U



ATEX
Approval ID: SEV13ATEX0159U



CCC
Approval ID: 2020322313000631



UKCA-EX
Approval ID: CML 22UKEX1224U

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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

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
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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