

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Multi-level terminal block, with equipotential bonder, 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: gray

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	3210512
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	BE2215
Catalog page	Page 73 (C-1-2019)
GTIN	4046356422598
Weight per piece (including packing)	18.771 g
Weight per piece (excluding packing)	18.654 g
Customs tariff number	85369010
Country of origin	PL

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

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	1

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

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

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
--------------------	--------

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

output	(Permanent)
--------	-------------

Ex level Level 3

Contact resistance	0.8 mΩ
output	(Permanent)

Ex level PV connection

Contact resistance	1.3 mΩ
--------------------	--------

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	102 mm
Depth	56.5 mm
Depth on NS 35/7,5	58 mm
Depth on NS 35/15	65.5 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 ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 kA

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

Result	Test passed
Power-frequency withstand voltage	
Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data	
Open side panel	Yes

Mechanical tests

Mechanical strength	
Result	Test passed

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

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

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, 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
----------------------------------	---------------

Mounting

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

PT 2,5-3PV - Multi-level terminal block

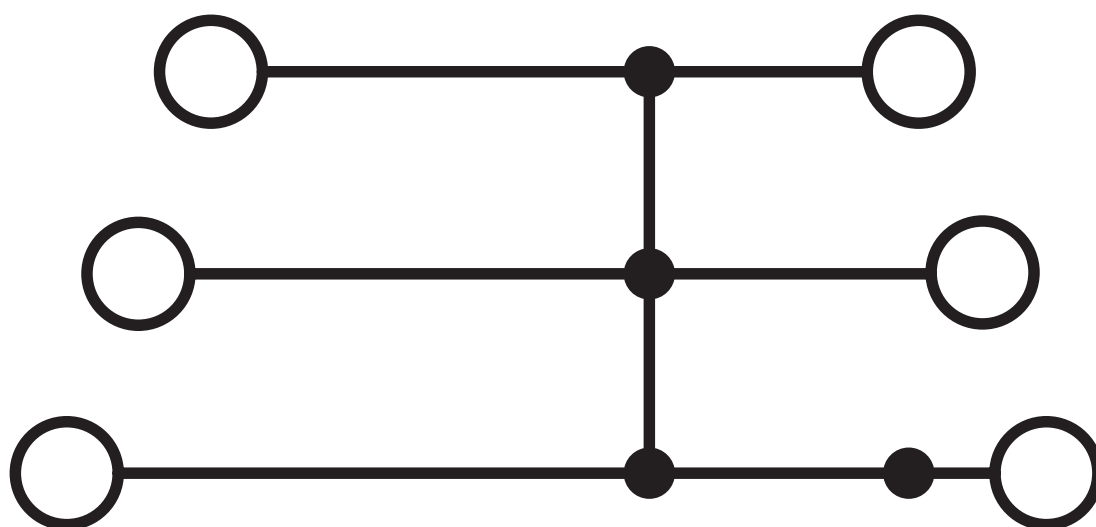


3210512

<https://www.phoenixcontact.com/pc/products/3210512>

Drawings

Circuit diagram



PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3210512>

 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				
---	--	--	--	--

 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

 LR Approval ID: 14/20056				
--	--	--	--	--

 cULus Recognized Approval ID: E60425				
--	--	--	--	--

 cULus Recognized Approval ID: E60425				
--	--	--	--	--

 IECEx Approval ID: IECEx SEV13.0005U				
--	--	--	--	--

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>



ATEX

Approval ID: SEV13ATEX0159U



CCC

Approval ID: 2020322313000631



UKCA-EX

Approval ID: CML 22UKEX1224U

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250102

ETIM

ETIM 9.0	EC000897
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

PT 2,5-3PV - Multi-level terminal block



3210512

<https://www.phoenixcontact.com/pc/products/3210512>

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%
EF3.0 Climate Change	
CO2e kg	0.131 kg CO2e

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com