

PTTB 4-PV - Double-level terminal block



3211825

<https://www.phoenixcontact.com/us/products/3211825>

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Double-level terminal block, with equipotential bonder, nom. voltage: 500 V, nominal current: 30 A, connection method: Push-in connection, 1st and 2nd level, Rated cross section: 4 mm², cross section: 0.2 mm² - 6 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Time-saving conductor connection thanks to tool-free direct-connection technology
- Convenient plugging with lower insertion force
- High conductor pull-out forces due to the spring design
- Vibration-resistant and maintenance-free conductor connection
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories
- Maximum efficiency in the smallest space - thanks to integrated level bridging, the connections are connected across levels
- Optimized for manual and automated wiring

Commercial data

Item number	3211825
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE22
Product key	BE2214
GTIN	4046356482738
Weight per piece (including packing)	17.19 g
Weight per piece (excluding packing)	15.8 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Multi-level terminal block
Product family	PT
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	4
Number of rows	2
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	1.02 W

Connection data

Number of connections per level	2
Nominal cross section	4 mm ²

1st and 2nd level

Connection method	Push-in connection
Stripping length	10 mm ... 12 mm
Internal cylindrical gage	A4
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.2 mm ² ... 6 mm ²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm ² ... 6 mm ²
Conductor cross-section, flexible [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 4 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.25 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Nominal cross section	4 mm ²
Nominal current	30 A (with 4 mm ² conductor cross-section)
Maximum load current	32 A (with 6 mm ² conductor cross-section, rigid)
Nominal voltage	500 V

1st and 2nd level Connection cross sections directly pluggable

Conductor cross-section rigid	0.5 mm ² ... 6 mm ²
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Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 4 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm ² ... 4 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	⊕ II 2 G Ex eb IIC Gb
Operating temperature range (1)	-60 °C ... 85 °C
Operating temperature range (2)	-40 °C ... 110 °C
Ex-certified accessories	3030462 D-STTB 4 3030747 ATP-STTB 4 1204517 SZF 1-0,6X3,5 3022276 CLIPFIX 35-5 3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-6 / 3030336 Plug-in bridge / FBS 3-6 / 3030242 Plug-in bridge / FBS 4-6 / 3030255 Plug-in bridge / FBS 5-6 / 3030349 Plug-in bridge / FBS 10-6 / 3030271 Plug-in bridge / FBS 20-6 / 3030365
Bridge data	23 A / 4 mm ²
Ex temperature increase	40 K (23 A / 4 mm ²)
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	220 V
- At cut-to-length bridging with cover	352 V
- At cut-to-length bridging with partition plate	440 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

Rated voltage	440 V
Rated current	23 A (4 mm ²)
Maximum load current	27 A (6 mm ²)

Ex connection data General

Nominal cross section	4 mm ²
Rated cross section AWG	12
Connection capacity rigid	0.2 mm ² ... 6 mm ²
Connection capacity AWG	24 ... 10
Connection capacity flexible	0.2 mm ² ... 4 mm ²
Connection capacity AWG	24 ... 12
output	(Permanent)

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Ex level Level 1

Contact resistance	0.67 mΩ
output	(Permanent)

Ex level Level 2

Contact resistance	0.49 mΩ
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Dimensions

Width	6.2 mm
End cover width	2.2 mm
Height	83.5 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 ≤ 45 K
Result	Test passed
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

Mechanical properties

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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	0.2 mm ² / 0.2 kg
	4 mm ² / 0.9 kg
	6 mm ² / 1.4 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	30.6 m/s ²
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	300 m/s ²
Shock duration	18 ms
Number of shocks per direction	3

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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
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

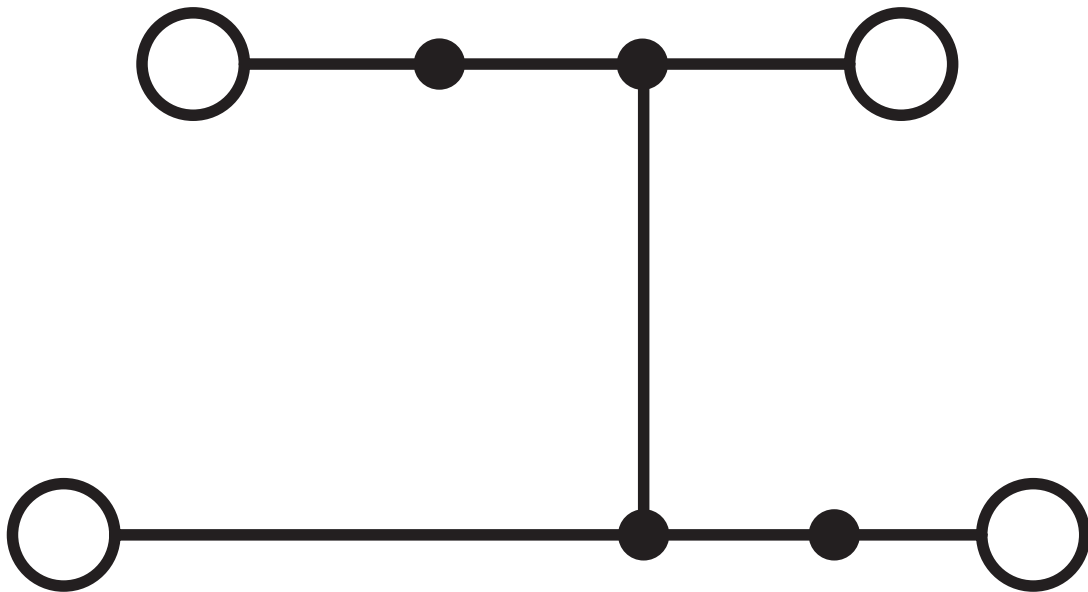
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Drawings

Circuit diagram



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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3211825>


 CSA Approval ID: 158887				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	30 A	24 - 10	-
C	300 V	30 A	24 - 10	-
D	600 V	5 A	24 - 10	-

 IECEE CB Scheme Approval ID: DE1-65853				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	500 V	28 A	-	0.2 - 4

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	30 A	24 - 10	-
C	300 V	30 A	24 - 10	-
D	600 V	5 A	24 - 10	-

 LR Approval ID: LR2371832TA				
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 NK Approval ID: 22ME0007				
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 VDE Gutachten mit Fertigungsüberwachung Approval ID: 40036696				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	500 V	28 A	-	0.2 - 4

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ABS

Approval ID: 21-2192245-PDA

DNV

Approval ID: TAE000010T



EAC Ex

Approval ID: KZ 7500525010101950



IECEX

Approval ID: IECEXPTB10.0046U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Only flexible conductors	440 V	23 A	-	0.2 - 4
Only rigid conductors	440 V	27 A	-	0.2 - 6



ATEX

Approval ID: PTB09ATEX1112U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Only flexible conductors	440 V	23 A	-	0.2 - 4
Only rigid conductors	440 V	27 A	-	0.2 - 6



CCC

Approval ID: 2020322313000631



UKCA-EX

Approval ID: CSAE 22UKEX1100U

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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	0.219 kg CO2e
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