

PTTBS 4-PV - Double-level terminal block



3211848

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Double-level terminal block, with equipotential bonder, nom. voltage: 800 V, nominal current: 28 A, connection method: Push-in connection, 1st and 2nd level, cross section: 0.2 mm² - 6 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

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

Commercial data

Item number	3211848
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE2214
Catalog page	Page 107 (C-1-2019)
GTIN	4046356482875
Weight per piece (including packing)	18.946 g
Weight per piece (excluding packing)	17.839 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Multi-level terminal block
Area of application	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	8 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

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 current	28 A
Maximum load current	28 A (with 6 mm ² conductor cross section, rigid)
Nominal voltage	800 V

1st and 2nd level Connection cross sections directly pluggable

Conductor cross section rigid	0.5 mm ² ... 6 mm ²
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

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Rated data (ATEX/IECEX)

Identification	⊕ II 2 GD Ex eb IIC Gb
Operating temperature range (1)	-60 °C ... 85 °C
Operating temperature range (2)	-40 °C ... 110 °C
Ex-certified accessories	3211849 D-PTTBS 4
	1204517 SZF 1-0,6X3,5
	1207608 ST-BW
	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	32 K (25,3 A / 4 mm ²)
Rated voltage	440 V
for bridging with bridge	440 V
- At bridging between non-adjacent terminal blocks	352 V
- At cut-to-length bridging with cover	320 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

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
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	6 mm ²
Single conductor/terminal point, flexible, with ferrule, without plastic sleeve, AWG	24 ... 10
output	(Permanent)

Ex level Level 1

Contact resistance	0.96 mΩ
output	(Permanent)

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Ex level Level 2

Contact resistance	0.75 mΩ
output	(Permanent)

Ex level PV connection

Contact resistance	0.93 mΩ
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Dimensions

Width	6.2 mm
End cover width	2.2 mm
Height	96 mm
Depth on NS 35/7,5	54.5 mm
Depth on NS 35/15	62 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
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	9.8 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
Short-time withstand current 6 mm ²	0.72 kA
Result	Test passed

Power-frequency withstand voltage

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Test voltage setpoint	2 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 slacking

Rotation speed	10 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):2008-03
Spectrum	Service 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

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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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

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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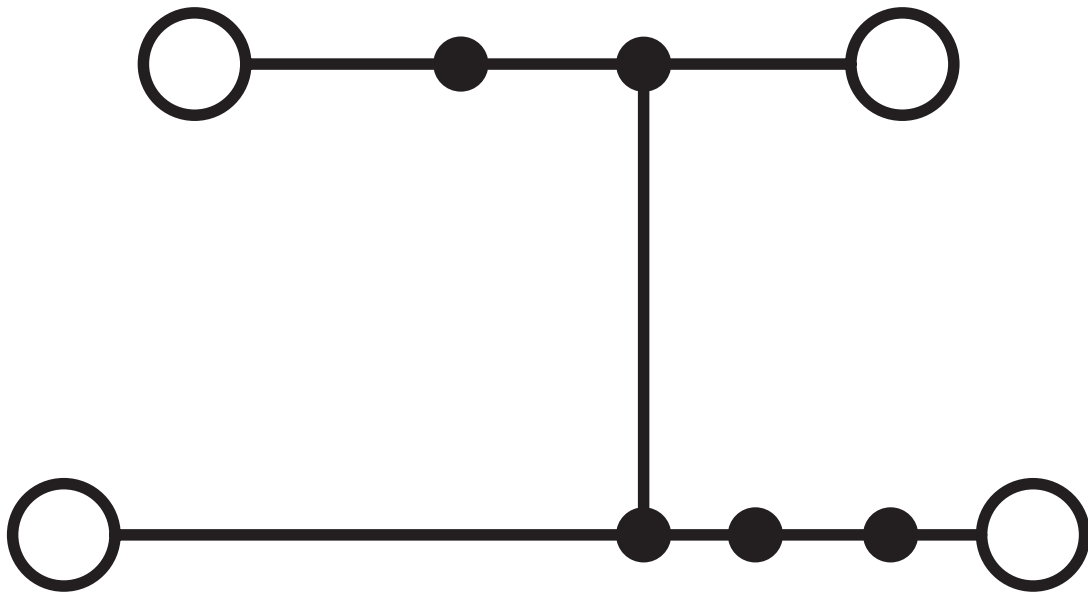


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Drawings

Circuit diagram



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Approvals


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 CSA Approval ID: 2030668				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	24 A	24 - 10	-
Use group C	600 V	24 A	24 - 10	-

 EAC Approval ID: RU C-DE.BL08.B.00644				
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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	24 A	24 - 10	-
Use group C	600 V	24 A	24 - 10	-

DNV Approval ID: TAE000010T				
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 IECEX Approval ID: IECEXKIWA17.0026U				
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 ATEX Approval ID: KIWA17ATEX0048U				
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 CCC Approval ID: 2020322313000631				
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 UKCA-EX Approval ID: CSAE 21UKEX3607U				
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EAC Ex

Approval ID: KZ 7500525010101950

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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
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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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