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 mm^2 - 6 mm^2, 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

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 mm²

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 mm² ... 6 mm²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm² ... 6 mm²
Conductor cross section, flexible [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm² ... 4 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1 mm²
Nominal current	28 A
Maximum load current	28 A (with 6 mm² conductor cross section, rigid)
Nominal voltage	800 V

1st and 2nd level Connection cross sections directly pluggable

Conductor cross section rigid	0.5 mm² ... 6 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 4 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm² ... 4 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 85 °C
	-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 mm²
Ex temperature increase	32 K (25,3 A / 4 mm²)
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 mm²)
Maximum load current	27 A (6 mm²)

Ex connection data General

Nominal cross section	4 mm²
Rated cross section AWG	12
Connection capacity rigid	0.2 mm² ... 6 mm²
Connection capacity AWG	24 ... 10
Connection capacity flexible	0.2 mm² ... 4 mm²
Connection capacity AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	6 mm²
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)

Ex level Level 2

Contact resistance	0.75 mΩ
output	(Permanent)

Ex level PV connection

Contact resistance	0.93 mΩ

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
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 mm²	0.48 kA
Short-time withstand current 6 mm²	0.72 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2 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	0.2 mm² / 0.2 kg
	4 mm² / 0.9 kg
	6 mm² / 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 Hz to f_2 = 250 Hz
ASD level	6.12 (m/s²)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

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

Mounting

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

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