PTTB 2,5 - Double-level terminal block

3210567

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Double-level terminal block, nom. voltage: 500 V, nominal current: 22 A, connection method: Push-in connection, 1st and 2nd level, Rated cross section: 2.5 mm^2, cross section: 0.14 mm^2 - 4 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- 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
- 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
- Tested for railway applications

Commercial data

Item number	3210567
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE2214
Catalog page	Page 72 (C-1-2019)
GTIN	4046356418980
Weight per piece (including packing)	10.74 g
Weight per piece (excluding packing)	10.028 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Product properties

Product type	Multi-level terminal block
Product family	PT
Area of application	Railway industry
Number of connections	4
Number of rows	2
Potentials	2

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 mm²
Rated cross section AWG	12

1st and 2nd level

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A4
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm² ... 4 mm²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm² ... 4 mm²
Conductor cross section, flexible [AWG]	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 2.5 mm²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm²
Nominal current	22 A (with 2.5 mm² conductor connection cross section)
Maximum load current	26 A (with 4 mm² conductor cross section, rigid)
Nominal voltage	500 V
Nominal cross section	2.5 mm²

1st and 2nd level Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 4 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 2.5 mm²

Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 2.5 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx 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	3211634 D-PTTB 2,5
	3030747 ATP-STTB 4
	1204517 SZF 1-0,6X3,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-5 / 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
	Plug-in bridge / FBS 50-5 / 3038930
Bridge data	16 A / 2.5 mm²
Ex temperature increase	40 K (18 A / 2.5 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	166 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 current	18 A
Maximum load current	22 A

Ex connection data General

Nominal cross section	2.5 mm²
Rated cross section AWG	14
Connection capacity rigid	0.14 mm² ... 4 mm²
Connection capacity AWG	26 ... 12
Connection capacity flexible	0.14 mm² ... 2.5 mm²
Connection capacity AWG	26 ... 14
output	(Permanent)

Ex level Level 1

Contact resistance	1.2 mΩ

output	(Permanent)

Ex level Level 2

Contact resistance	0.92 mΩ

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	68 mm
Depth	45.8 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
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °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)	28 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
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 mm² / 0.2 kg
	2.5 mm² / 0.7 kg
	4 mm² / 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 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

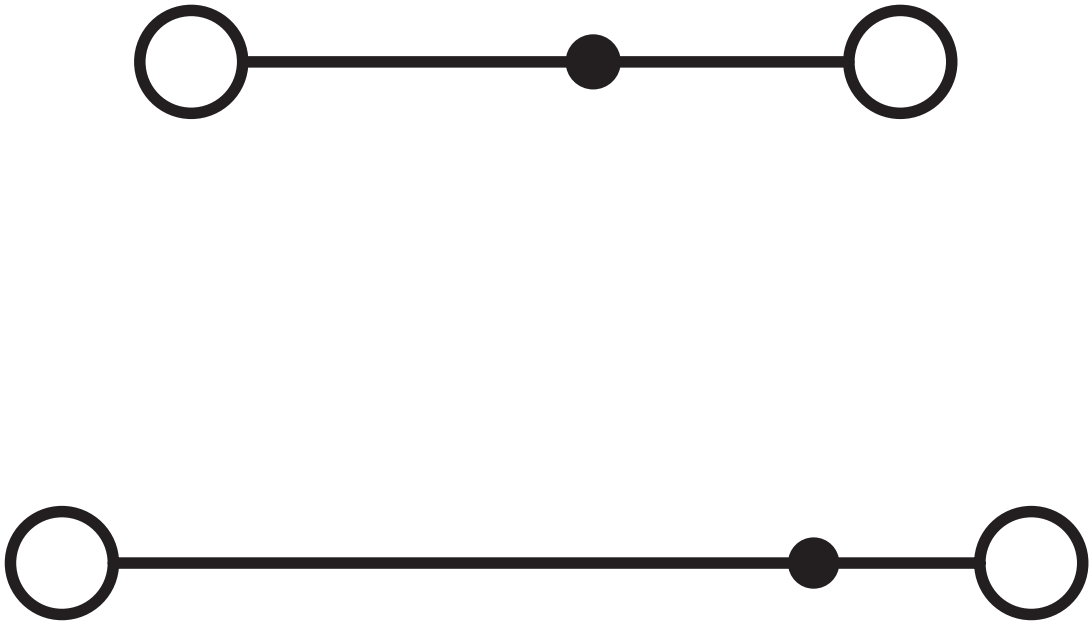
Connection in acc. with standard	IEC 60947-7-1

Mounting

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

Drawings

Circuit diagram



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				
	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	22 A	-	0.2 - 2.5

EAC
Approval ID: RU C-DE.BL08.B.00644

cULus Recognized
Approval ID: E60425

LR
Approval ID: LR2371832TA

NK
Approval ID: 22ME0007

cULus Recognized
Approval ID: E60425

BV
Approval ID: 25278/C1 BV

VDE approval of drawings
Approval ID: 40032222

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	500 V	22 A	-	0.2 - 2.5

ABS
Approval ID: 21-2192245-PDA

NK
Approval ID: 14ME0912

DNV
Approval ID: TAE000010T

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

IECEx
Approval ID: IECExPTB10.0021U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	18 A	-	0.14 - 2.5
Only rigid conductors	440 V	22 A	-	0.14 - 4

ATEX
Approval ID: PTB09ATEX1111U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	18 A	-	0.14 - 2.5
Only rigid conductors	440 V	22 A	-	0.14 - 4

CCC
Approval ID: 2020322313000631

UKCA-EX
Approval ID: CSAE 22UKEX1096U

EAC Ex
Approval ID: KZ 7500525010101950

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250102

ETIM

ETIM 9.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

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	0.104 kg CO2e

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