PT 2,5-TWIN - Feed-through terminal block

3209549

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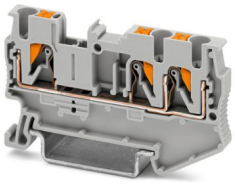

Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 3, connection method: Push-in connection, Rated cross section: 2.5 mm^2, cross section: 0.14 mm^2 - 4 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

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	3209549
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE2212
Catalog page	Page 71 (C-1-2019)
GTIN	4046356329811
Weight per piece (including packing)	8.853 g
Weight per piece (excluding packing)	8.601 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Notes

General

Note	The max. load current must not be exceeded by the total current of all connected conductors.

Product properties

Product type	Multi-conductor terminal block
Product family	PT
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	3
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Nominal cross section	2.5 mm²
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 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
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm²
Nominal current	24 A (with 2.5 mm² conductor connection cross section)
Maximum load current	30 A (with 4 mm² conductor cross section, rigid)
Nominal voltage	800 V
Nominal cross section	2.5 mm²

Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 4 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 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	3030488 D-ST 2,5-TWIN
	3036602 DS-ST 2,5
	3030789 ATP-ST-TWIN
	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	19 A / 2.5 mm²
Ex temperature increase	40 K (19 A / 2.5 mm²)
Rated voltage	550 V
for bridging with bridge	550 V
- At bridging between non-adjacent terminal blocks	352 V
- At cut-to-length bridging	220 V
- At cut-to-length bridging with cover	275 V
- At cut-to-length bridging with partition plate	550 V
Rated insulation voltage	500 V
output	(Permanent)

Ex level General

Rated current	19 A
Maximum load current	23 A
Contact resistance	1.03 mΩ

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

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	60.5 mm
Depth	35.3 mm
Depth on NS 35/7,5	36.8 mm
Depth on NS 35/15	44.3 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	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 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	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	0.14 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

To download certificates, visit the product detail page: https://www.phoenixcontact.com/sg/products/3209549

CSA
Approval ID: 2030668

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	20 A	26 - 12	-
Use group C				
	600 V	20 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
	800 V	24 A	-	0.2 - 2.5

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

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	20 A	26 - 12	-
Use group C				
	600 V	20 A	26 - 12	-
Use group F				
	800 V	20 A	26 - 12	-

LR
Approval ID: LR2371832TA

NK
Approval ID: 22ME0007

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
	800 V	24 A	-	0.2 - 2.5

ABS
Approval ID: 21-2192245-PDA

NK
Approval ID: 14ME0912

DNV
Approval ID: TAE000010T

cUL Recognized
Approval ID: E192998

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	550 V	20 A	26 - 12	-

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	550 V	19 A	-	0.14 - 2.5
Only rigid conductors	550 V	23 A	-	0.14 - 4

UL Recognized
Approval ID: E192998

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	550 V	20 A	26 - 12	-

ATEX
Approval ID: PTB09ATEX1111U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	550 V	19 A	-	0.14 - 2.5

Only rigid conductors	550 V	23 A	-	0.14 - 4

CCC
Approval ID: 2020322313000631

KC-s
Approval ID: 20-KA4BO-0658U

UKCA-EX
Approval ID: CSAE 22UKEX1096U

EAC Ex
Approval ID: KZ 7500525011010195O

cULus Recognized

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

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	0.052 kg CO2e

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