PT 16 N BK - Feed-through terminal block

3212145

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 76 A, number of connections: 2, connection method: Push-in connection, Rated cross section: 16 mm^2, cross section: 0.5 mm^2 - 25 mm^2, mounting type: NS 35/7,5, NS 35/15, color: black

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
- Tested for railway applications

Technical data

Product properties

Product type	Feed-through terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
Number of connections	2
Number of rows	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	2.43 W

Connection data

Number of connections per level	2
Nominal cross section	16 mm²
Stripping length	18 mm ... 20 mm
Internal cylindrical gage	A7
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.5 mm² ... 25 mm²
Cross section AWG	20 ... 4 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm² ... 25 mm²
Conductor cross section, flexible [AWG]	20 ... 4 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 16 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm² ... 16 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	1.5 mm² ... 4 mm²
Nominal current	76 A
Maximum load current	85 A (with 25 mm² conductor cross section, rigid)
Nominal voltage	1000 V
Nominal cross section	16 mm²

Connection cross sections directly pluggable

Conductor cross section rigid	2.5 mm² ... 25 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	2.5 mm² ... 16 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	2.5 mm² ... 16 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3212060 D-PT 16 N
	1206612 SZF 3-1,0X5,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-12 / 3005950
Bridge data	60.5 A / 16 mm²
Ex temperature increase	40 K (65.5 A / 16 mm²)
Rated voltage	550 V
for bridging with bridge	550 V
Rated insulation voltage	500 V
output	(Permanent)

Ex level General

Rated current	65.5 A
Maximum load current	78 A
Contact resistance	0.31 mΩ

Ex connection data General

Nominal cross section	16 mm²
Rated cross section AWG	6
Connection capacity rigid	0.5 mm² ... 25 mm²
Connection capacity AWG	20 ... 4
Connection capacity flexible	0.5 mm² ... 16 mm²
Connection capacity AWG	20 ... 6

Dimensions

Width	12.2 mm
End cover width	2.2 mm
Height	75.4 mm
Depth on NS 35/7,5	52.6 mm
Depth on NS 35/15	60.1 mm

Material specifications

Color	black
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 16 mm²	1.92 kA
Short-time withstand current 25 mm²	3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 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	5 N
Result	Test passed

Test for conductor damage and slackening

Conductor cross section/weight	0.5 mm² / 0.3 kg
	16 mm² / 2.9 kg
	25 mm² / 4.5 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
	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Service life test category 2, bogie-mounted
	Service life test category 1, class B, body mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
	f_1 = 5 Hz to f_2 = 150 Hz
ASD level	6.12 $(m/s^2)^2/Hz$
	0.964 $(m/s^2)^2/Hz$
Acceleration	3.12g
	5.72 m/s^2
Test duration per axis	5 h
	5 h
Test directions	X-, Y- and Z-axis
	X-, Y- and Z-axis
Result	Test passed
	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
	DIN EN 50155 (VDE 0115-200):2022-06
Pulse shape	Half-sine
	Half-sine
Acceleration	30g
	50 m/s^2
Shock duration	18 ms
	30 ms
Number of shocks per direction	3
	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed
	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, no longer than 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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