PTV 6-TWIN - Feed-through terminal block

1116737

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 41 A, number of connections: 3, number of positions: 1, connection method: Push-in connection, Rated cross section: 6 mm^2, cross section: 0.5 mm^2 - 10 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Clear wiring, thanks to lateral conductor entry
- The compact design enables wiring in a confined space
- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system
- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off

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	Feed-through terminal block
Product family	PTV
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of positions	1
Number of connections	3
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	1.31 W

Connection data

Number of connections per level	3
Nominal cross section	6 mm²
Stripping length	10 mm ... 12 mm
Internal cylindrical gage	A5
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.5 mm² ... 10 mm²
Cross section AWG	20 ... 8 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm² ... 10 mm²
Conductor cross section, flexible [AWG]	20 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm² ... 6 mm²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm² ... 4 mm²
Nominal current	41 A
Maximum load current	52 A (with 10 mm² conductor cross section, rigid)
Nominal voltage	1000 V
Nominal cross section	6 mm²

Connection cross sections directly pluggable

Conductor cross section rigid	1.5 mm² ... 10 mm²
Conductor cross section, rigid [AWG]	16 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	4 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	2.5 mm² ... 6 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	1180923 D-PTV 6-TWIN
	1182214 DS-PTV 6
	3022276 CLIPFIX 35-5
	1212602 SZS 0,6X3,5 VDE
List of bridges	Plug-in bridge / FBS 2-8 / 3030284
	Plug-in bridge / FBS 3-8 / 3030297
	Plug-in bridge / FBS 4-8 / 3030307
	Plug-in bridge / FBS 5-8 / 3030310
	Plug-in bridge / FBS 6-8 / 3032470
	Plug-in bridge / FBS 10-8 / 3030323
Bridge data	36 A / 6 mm²
Ex temperature increase	40 K (35 A/6 mm²)
Rated voltage	550 V
for bridging with bridge	550 V
- At bridging between non-adjacent terminal blocks	352 V
- At bridging between non-adjacent terminal blocks via PE terminal block	352 V
- At cut-to-length bridging	220 V
- At cut-to-length bridging with cover	275 V
Rated insulation voltage	500 V
output	(Permanent)

Ex level General

Rated current	35 A (6 mm²)
Maximum load current	45 A (10 mm²)
Contact resistance	0.6 mΩ

Ex connection data General

Nominal cross section	6 mm²
Rated cross section AWG	10
Connection capacity rigid	0.5 mm² ... 10 mm²
Connection capacity AWG	20 ... 8
Connection capacity flexible	0.5 mm² ... 10 mm²
Connection capacity AWG	20 ... 8

Dimensions

Width	8.2 mm
End cover width	2.2 mm
Height	72.9 mm
Depth	57.6 mm
Depth on NS 35/7,5	59.1 mm
Depth on NS 35/15	66.6 mm

Material specifications

Color	gray
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA 6.6
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	8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 6 mm²	0.72 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
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.5 mm² / 0.3 kg
	6 mm² / 1.4 kg
	10 mm² / 2 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):2018-05
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):2018-05
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, 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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