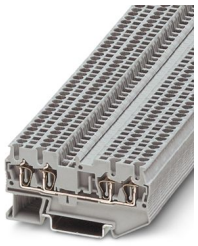
ST 1,5-QUATTRO - Feed-through terminal block

3031186

https://www.phoenixcontact.com/de/produkte/3031186

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Feed-through terminal block, nom. voltage: 500 V, nominal current: 17.5 A, number of connections: 4, connection method: Spring-cage connection, 1 level, Rated cross section: 1.5 mm^2, cross section: 0.08 mm^2 - 1.5 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Cross connection to any number of terminal blocks with the consistent FBS ... plug-in bridge system
- Compact potential distributors, the double connection enables four conductors to be connected on one potential
- Tested for railway applications

Technical data

Notes

General

Note	When establishing a connection on the open housing side of a feed-through modular terminal block of the same series and size, the block must be provided with a cover if the expected insulation voltage is >320 V.
	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	ST
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	4
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Number of connections per level	4
Nominal cross section	1.5 mm²

1 level

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A1
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.08 mm² ... 1.5 mm²
Cross section AWG	28 ... 16 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm² ... 1.5 mm²
Conductor cross section, flexible [AWG]	28 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN	0.5 mm²

ferrule with plastic sleeve	
Nominal current	17.5 A (with 1.5 mm² conductor cross section)
Maximum load current	17.5 A (in case of a 1.5 mm² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	500 V
Nominal cross section	1.5 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	3030514 D-ST 2,5-QUATTRO
	3030815 ATP-ST QUATTRO
	3036602 DS-ST 2,5
	1204504 SZF 0-0,4X2,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-4 / 3030116
	Plug-in bridge / FBS 3-4 / 3030129
	Plug-in bridge / FBS 4-4 / 3030132
	Plug-in bridge / FBS 5-4 / 3030145
	Plug-in bridge / FBS 10-4 / 3030158
	Plug-in bridge / FBS 20-4 / 3030352
Bridge data	16.5 A / 1.5 mm²
Ex temperature increase	40 K (19.7 A / 1.5 mm²)
Rated voltage	440 V
for bridging with bridge	440 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 with cover	220 V
- At cut-to-length bridging with partition plate	275 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

Rated current	17.5 A
Maximum load current	17.5 A
Contact resistance	1.54 mΩ

Ex connection data General

Nominal cross section	1.5 mm²
Rated cross section AWG	16
Connection capacity rigid	0.08 mm² ... 1.5 mm²

Connection capacity AWG	28 ... 16
Connection capacity flexible	0.08 mm² ... 1.5 mm²
Connection capacity AWG	28 ... 16

Dimensions

Width	4.2 mm
End cover width	2.2 mm
Height	72 mm
Depth on NS 35/7,5	36.5 mm
Depth on NS 35/15	44 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	7.3 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
	Test passed
Short-time withstand current 1.5 mm²	0.18 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 32/NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	0.08 mm² / 0.1 kg
	1.5 mm² / 0.4 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):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
ASD level	6.12 $(m/s^2)^2/Hz$
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	5g
Shock duration	30 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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