

ST 4-TWIN-PE - Protective conductor terminal block



3031416

<https://www.phoenixcontact.com/us/products/3031416>

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Protective conductor terminal block, number of connections: 3, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 4 mm², cross section: 0.08 mm² - 6 mm², mounting type: NS 35/7,5, NS 35/15, color: green-yellow

Your advantages

- Simple wiring of very small, flexible conductors
- No restriction on cross-sections when using conductors with ferrules
- Meet the requirements of DIN EN 60947-7-2 or IEC 60947-7-2 for protective conductor connections
- High level of safety thanks to the low-resistance connection to the ground potential via the top-hat rail
- Direct contacting with the DIN rail enables fast, error-free grounding without additional wiring effort.
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories

Commercial data

Item number	3031416
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2122
GTIN	4017918186883
Weight per piece (including packing)	15.7 g
Weight per piece (excluding packing)	14.984 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Product properties

Product type	Ground terminal block
Product family	ST
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	1.02 W

Connection data

Number of connections per level	3
Nominal cross section	4 mm ²
Connection method	Spring-cage connection
Note	Please observe the current carrying capacity of the DIN rails.
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A4
Connection in acc. with standard	IEC 60947-7-2
Conductor cross-section rigid	0.08 mm ² ... 6 mm ²
Cross section AWG	28 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm ² ... 4 mm ²
Conductor cross-section, flexible [AWG]	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible ultrasound-compressed	0.34 mm ² ... 6 mm ²
Conductor cross-section, flexible [AWG] ultrasound-compressed	22 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 4 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 4 mm ²
Nominal cross section	4 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 85 °C

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Ex-certified accessories	3030491 D-ST 4-TWIN 1204517 SZF 1-0,6X3,5 3022276 CLIPFIX 35-5 3022218 CLIPFIX 35
output	(Permanent)

Ex connection data General

Nominal cross section	4 mm ²
Rated cross section AWG	12
Connection capacity rigid	0.08 mm ² ... 6 mm ²
Connection capacity AWG	28 ... 10
Connection capacity flexible	0.08 mm ² ... 4 mm ²
Connection capacity AWG	28 ... 12

Dimensions

Width	6.2 mm
End cover width	2.2 mm
Height	71.5 mm
Depth on NS 35/7,5	36.5 mm
Depth on NS 35/15	44 mm

Material specifications

Color	green-yellow
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

Mechanical properties

Mechanical data	
Open side panel	Yes

Environmental and real-life conditions

Oscillation/broadband noise	
Specification	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Long life test category 2, bogie-mounted

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Frequency	$f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2/\text{Hz}$
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, 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 60947-7-2
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Mounting

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

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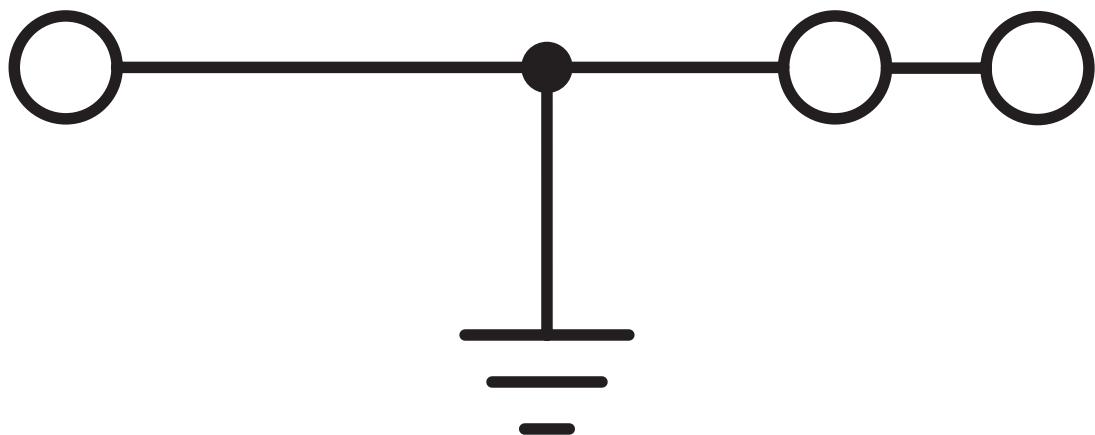
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Drawings

Circuit diagram



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Approvals

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		CSA	Approval ID: 13631		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B		-	-	28 - 10	-
C		-	-	28 - 10	-
D		-	-	28 - 10	-

CB Scheme	IECEE CB Scheme	Approval ID: DE1-62971_M1
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KR	NK	Approval ID: HMB17372-EL002
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ClassNK	NK	Approval ID: 09 ME 140
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		VDE Zeichengenehmigung	Approval ID: 40010331		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine		-	-	-	0.2 - 4

		cULus Recognized	Approval ID: E60425		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B		-	-	28 - 10	-
C		-	-	28 - 10	-

Ex	ATEX	Approval ID: KEMA00ATEX2129U
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IECEx

Approval ID: IECEx KEM 06.0050U



CCC

Approval ID: 2020322313000621



UKCA-EX

Approval ID: DEKRA 21UKEX0301U



EAC Ex

Approval ID: KZ 7500525010101950

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Classifications

ECLASS

ECLASS-13.0	27250103
ECLASS-15.0	27250103

ETIM

ETIM 9.0	EC000901
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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%
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EF3.0 Climate Change

CO2e kg	0.277 kg CO2e
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