

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Protective conductor terminal block, number of connections: 3, number of positions: 1, connection method: Spring-cage connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 6 mm<sup>2</sup>, 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)	15.6 g
Weight per piece (excluding packing)	14.984 g
Customs tariff number	85369010
Country of origin	DE

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

## 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

Grounding foot	Yes
Number of connections per level	3
Nominal cross section	4 mm <sup>2</sup>
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 <sup>2</sup> ... 6 mm <sup>2</sup>
Cross section AWG	28 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section, flexible [AWG]	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible ultrasound-compressed	0.34 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section, flexible [AWG] ultrasound-compressed	22 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Nominal cross section	4 mm <sup>2</sup>

### Ex data

#### Rated data (ATEX/IECEX)

Identification	⊕ II 2 GD Ex eb IIC Gb
----------------	------------------------

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

Operating temperature range	-60 °C ... 85 °C
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 <sup>2</sup>
Rated cross section AWG	12
Connection capacity rigid	0.08 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Connection capacity AWG	28 ... 10
Connection capacity flexible	0.08 mm <sup>2</sup> ... 4 mm <sup>2</sup>
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
---------------	-------------------------------------

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}/\text{Hz}$
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
----------------------------------	---------------

## Mounting

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

# ST 4-TWIN-PE - Protective conductor terminal block

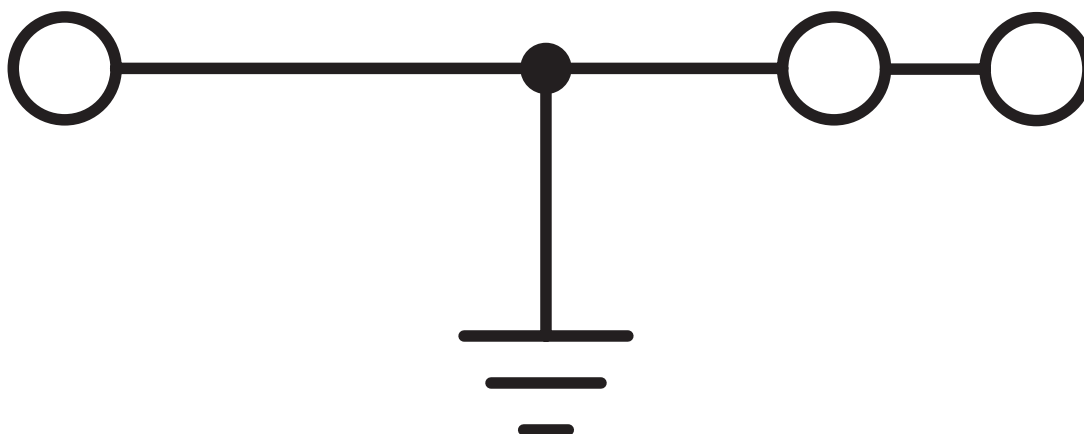


3031416

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

## Drawings

Circuit diagram



# ST 4-TWIN-PE - Protective conductor terminal block




3031416


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


## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3031416>


 <b>CSA</b> 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	-

 <b>IECEE CB Scheme</b> Approval ID: DE1-62971_M1				
---	--	--	--	--

 <b>KR</b> Approval ID: HMB17372-EL002				
--	--	--	--	--

 <b>NK</b> Approval ID: 09 ME 140				
---	--	--	--	--

 <b>VDE Zeichengenehmigung</b> Approval ID: 40010331				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	-	-	-	0.2 - 4

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

 <b>ATEX</b> Approval ID: KEMA00ATEX2129U				
---	--	--	--	--

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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



**IECEx**

Approval ID: IECEx KEM 06.0050U



**CCC**

Approval ID: 2020322313000621



**UKCA-EX**

Approval ID: DEKRA 21UKEX0301U



**EAC Ex**

Approval ID: KZ 7500525010101950

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

## Classifications

### ECLASS

ECLASS-13.0	27250103
ECLASS-15.0	27250103

### ETIM

ETIM 10.0	EC000901
-----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# ST 4-TWIN-PE - Protective conductor terminal block



3031416

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

## 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%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	0.277 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)