

STS 2,5-TWIN - Feed-through terminal block



3031720

<https://www.phoenixcontact.com/nl/products/3031720>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 3, connection method: Spring-cage connection, Rated cross section: 2.5 mm², 1 level, cross section: 0.08 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Same shape and pitch as the feed-through terminal blocks
- Cross connection to adjacent feed-through terminal blocks with the consistent FBS ... plug-in bridge system

Commercial data

Item number	3031720
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE2112
Product key	BE2112
GTIN	4017918193270
Weight per piece (including packing)	7,415 g
Weight per piece (excluding packing)	7,05 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Product properties

Product family	STS
Number of connections	3
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Nominal cross section	2.5 mm ²

1 level

Connection method	Spring-cage connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.08 mm ² ... 4 mm ²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal cross section	2.5 mm ²
Nominal current	24 A (with 4 mm ² conductor cross-section)
Maximum load current	28 A (in case of a 4 mm ² conductor cross-section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	800 V

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔ II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
	3031762 D-STS 2,5

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Ex-certified accessories	3206209 ATP-QTC
	1204517 SZF 1-0,6X3,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-5 / 3030161
	Plug-in bridge / FBS 3-5 / 3030174
	Plug-in bridge / FBS 4-5 / 3030187
	Plug-in bridge / FBS 5-5 / 3030190
	Plug-in bridge / FBS 10-5 / 3030213
	Plug-in bridge / FBS 20-5 / 3030226
Bridge data	Plug-in bridge / FBS 50-5 / 3038930
	21 A (2.5 mm ²)
	40 K (21 A / 2.5 mm ²)
	550 V
	352 V
	275 V
Ex temperature increase for bridging with bridge	220 V
	352 V
	500 V
	(Permanent)

Ex level General

Rated voltage	550 V
Rated current	21 A
Maximum load current	25.5 A
Contact resistance	1.08 mΩ

Ex connection data General

Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.08 mm ² ... 4 mm ²
Connection capacity AWG	28 ... 12
Connection capacity flexible	0.08 mm ² ... 2.5 mm ²
Connection capacity AWG	28 ... 14

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	50.8 mm
Depth on NS 35/7,5	43 mm
Depth on NS 35/15	50.5 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0

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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	9.8 kV
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Environmental and real-life conditions

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
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	30g
Shock duration	18 ms

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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 60947-7-1
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Mounting

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

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/nl/products/3031720>

CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	20 A	28 - 12	-
C				
	600 V	20 A	28 - 12	-

CCA Approval ID: CH-02-IK-0258.I				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	-	-	-	- 1.5

LR Approval ID: LR21234196TA				
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ClassNK NK Approval ID: 06ME279				
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ABS Approval ID: 21-2158220-PDA				
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cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	20 A	28 - 12	-
C				
	600 V	20 A	28 - 12	-

DNV Approval ID: TAE00001CS				
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EAC Ex Approval ID: KZ 7500525010101950				
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IECEx

Approval ID: IECExPTB07.0024U



ATEX

Approval ID: PTB07ATEX1027U



CCC

Approval ID: 2020322313000621



UKCA-EX

Approval ID: CSAE 22UKEX1141U

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Classifications

ECLASS

ECLASS-13.0	27250101
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ETIM

ETIM 9.0	EC000897
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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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EF3.1 Climate Change

CO2e kg	0,06 kg CO2e
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