

# ST 2,5-QUATTRO-TG - Disconnect terminal block



3038451

<https://www.phoenixcontact.com/us/products/3038451>

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Disconnect terminal block, The max. load current must not be exceeded by the total current of all connected conductors.

Current and voltage are determined by the plug used., nom. voltage: 400 V, Thermal continuous current  $I_{th}$ : 20 A, connection method: Spring-cage connection, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- Three and four-conductor terminal blocks can be used for multi-conductor connections
- User-friendly wiring thanks to front connection
- Test pick-off parallel to the disconnect point for test plugs with 2.3 mm diameter
- Tested for railway applications
- Consistent and can be double bridged for all tasks in time-saving potential supply and distribution

## Commercial data

Item number	3038451
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2132
GTIN	4017918890599
Weight per piece (including packing)	10.83 g
Weight per piece (excluding packing)	10.425 g
Customs tariff number	85369010
Country of origin	DE

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## Technical data

### Notes

General	The max. load current must not be exceeded by the total current of all connected conductors. Current and voltage are determined by the plug used.
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### Product properties

Product type	Disconnect terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
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	0.77 W

### Connection data

Number of connections per level	4
Nominal cross section	2.5 mm <sup>2</sup>
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 <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Conductor cross-section flexible ultrasound-compressed	0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section, flexible [AWG] ultrasound-compressed	22 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup>
Thermal continuous current I <sub>th</sub>	20 A (with 4 mm <sup>2</sup> conductor cross-section)

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Maximum load current	20 A (with 4 mm <sup>2</sup> conductor cross-section)
Nominal voltage	400 V (voltage is determined by the plug used)
Nominal cross section	2.5 mm <sup>2</sup>

## Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	84 mm
Depth on NS 35/7,5	36.5 mm
Depth on NS 35/15	44 mm

## Material specifications

Color	gray (RAL 7042)
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

## Electrical tests

Surge voltage test	
Test voltage setpoint	6 kV
Result	Test passed

Temperature-rise test	
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA

Power-frequency withstand voltage	
Test voltage setpoint	1.89 kV
Result	Test passed

## Mechanical properties

Mechanical data	
Open side panel	Yes

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## Mechanical tests

### Mechanical strength

Result	Test passed
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### Attachment on the carrier

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 mm <sup>2</sup> / 0.1 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 0.9 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):2022-06
Spectrum	Long life test category 2, bogie-mounted
Frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz
ASD level	6.12 (m/s <sup>2</sup> ) <sup>2</sup> /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

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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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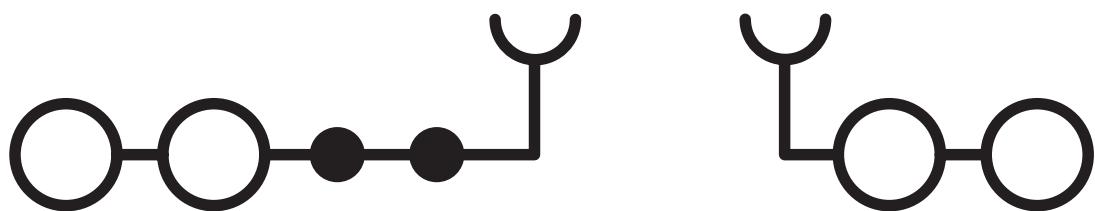
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## Drawings

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
B		300 V	16 A	28 - 12
C		150 V	16 A	28 - 12
D		300 V	10 A	28 - 12

		EAC		
		Approval ID: RU C-DE.BL08.B.00644		

		cULus Recognized		
		Approval ID: E60425		
		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG
B		300 V	16 A	28 - 12
C		300 V	16 A	28 - 12

		EAC		
		Approval ID: KZ7500651131219505		

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## Classifications

### ECLASS

ECLASS-13.0	27250108
ECLASS-15.0	27250108

### ETIM

ETIM 9.0	EC000902
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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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