

# Component terminal block - STTB 2,5-2DIO/O-UL/UR-UL



3031584

<https://www.phoenixcontact.com/de/produkte/3031584>

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Component terminal block, The max. current is determined by the diode. Installed: Diode 1N 4007, reverse voltage: 1300 V, maximum continuous current: 0.5 A., with integrated diode, nom. voltage: 250 V, nominal current: 0.5 A, 1st and 2nd level, 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

- For more versions and versions for soldering in components yourself, visit [phoenixcontact.net/products](https://www.phoenixcontact.net/products)
- Double-level diode and LED terminal blocks perform a wide range of switching tasks

## Commercial Data

Item number	3031584
Packing unit	50 pc
Minimum order quantity	1 pc
Sales Key	A1 - Reihenklennen
Product Key	BE2172
Catalog Page	Page 219 (C-1-2019)
GTIN	4017918183066
Weight per Piece (including packing)	10,8 g
Weight per Piece (excluding packing)	10,8 g
Customs tariff number	85369010
Country of origin	PL

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## Technical Data

### Notes

General	The max. current is determined by the diode. Installed: Diode 1N 4007, reverse voltage: 1300 V, maximum continuous current: 0.5 A.
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### Product properties

Product type	Component terminal block
Number of connections	4
Number of rows	2
Potentials	2

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.77 W

### Connection data

Number of connections per level	2
Nominal cross section	2.5 mm <sup>2</sup>

### 1st and 2nd level

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Conductor cross section solid	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)
Flexible conductor cross section flexible (ferrule, w/o 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>
Nominal current	0.5 A
Maximum load current	0.5 A
Nominal voltage	250 V
Nominal cross section	2.5 mm <sup>2</sup>

### Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height NS 35/15	55 mm

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Height NS 35/7,5	47.5 mm
Height	1.87 "
Length	67.5 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	4.8 kV
Result	Test passed

### Temperature-rise test

	≤ 3.2 mV
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA
Short-time withstand current 4 mm <sup>2</sup>	0.48 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.5 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

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

## Test for conductor damage and slackening

Rotation speed	10 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):2008-03
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
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	30g
Shock duration	18 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 ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)

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Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

## Mounting

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

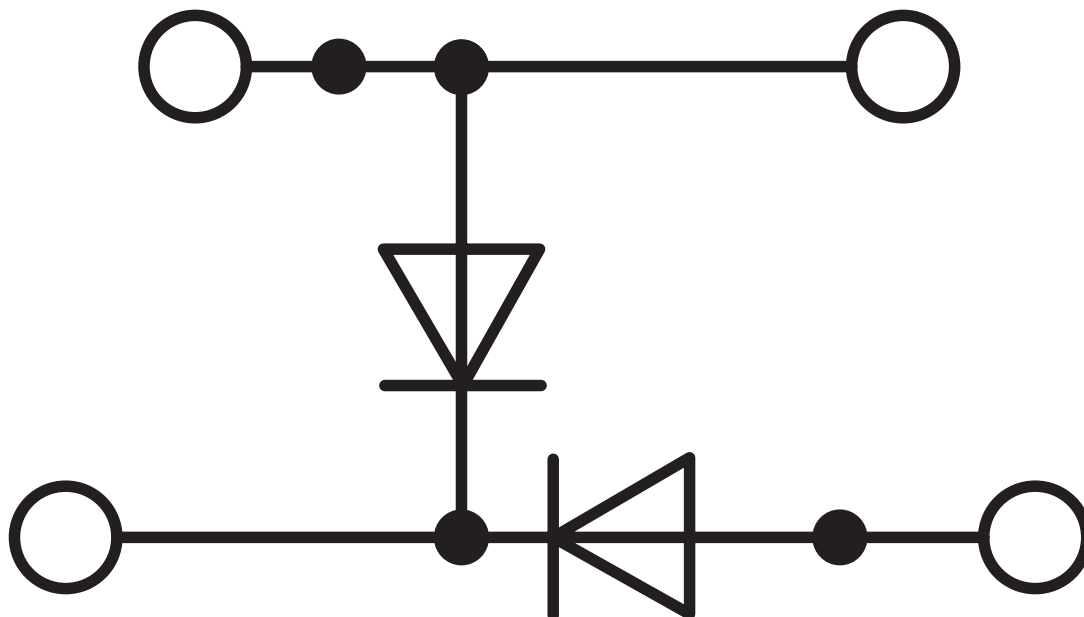
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## Drawings

Circuit diagram




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## Approvals

 <b>CSA</b> Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	300 V	0.5 A	28 - 12	-
Use group C				
	300 V	0.5 A	28 - 12	-

 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00644				
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 <b>cULus Recognized</b> Approval ID: E60425				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	300 V	0.5 A	28 - 12	-
Use group C				
	300 V	0.5 A	28 - 12	-

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## Classifications

### ECLASS

ECLASS-9.0	27141127
ECLASS-10.0.1	27141127
ECLASS-11.0	27141127

### ETIM

ETIM 8.0	EC000903
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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