

## Installation ground terminal block - STIO-IN 2,5/3-PE OG - 3209086

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Installation ground terminal block, nom. voltage: 250 V, nominal current: 30 A, connection method: Spring-cage connection, number of connections: 4, cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 28 - 12, width: 10.4 mm, color: orange, mounting type: NS 35/7,5, NS 35/15

### Why buy this product

- ✓ Three-conductor output terminal block of the same shape with PE connection in the lower level for wiring actuators
- ✓ Power terminal blocks can be located at any point on the terminal strip for supply or extension purposes
- ✓ Versions with LED for indicating the switching states
- ✓ Easy bridging and potential distribution using the patented plug-in bridges from the CLIPLINE complete system
- ✓ The upper level is for signal wiring, whereas the two lower levels are used to distribute the positive and negative potential
- ✓ For space and time-saving wiring of three-conductor initiators and actuators
- ✓ Potential is supplied via the STIO-IN power terminal blocks

### Key Commercial Data

Packing unit	25 STK
GTIN	
GTIN	4046356143288

### Technical data

#### General

Number of levels	3
Number of connections	4
Nominal cross section	2.5 mm <sup>2</sup>
Color	orange
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	4 kV
Degree of pollution	3
Overvoltage category	III

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## Technical data

### General

Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W (the value is multiplied when connecting multiple levels)
Connection in acc. with standard	IEC 60947-7-1/IEC 60947-7-2
Nominal current I <sub>N</sub>	30 A (For central infeed and 4 mm <sup>2</sup> conductor cross section)
	18 A (For single-sided infeed and 2.5 mm <sup>2</sup> conductor cross section)
Maximum load current	30 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal voltage U <sub>N</sub>	250 V
Open side panel	No
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	4.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.5 kV
Checking the mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test 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
Tensile test result	Test passed
Conductor cross section tensile test	0.08 mm <sup>2</sup>
Tractive force setpoint	5 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
Tractive force setpoint	60 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Result of thermal test	Test passed

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### General

Proof of thermal characteristics (needle flame) effective duration	30 s
Relative insulation material temperature index (Elec.; UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

### Dimensions

Width	10.4 mm
Length	75 mm
Height NS 35/7,5	44.5 mm
Height NS 35/15	52 mm

### Connection data

Note	Please observe the current carrying capacity of the DIN rails.
Connection method	Spring-cage connection
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3

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## Technical data

### Standards and Regulations

Connection in acc. with standard	CUL
	IEC 60947-7-1/IEC 60947-7-2
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
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### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

### Circuit diagram



## Approvals

### Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	D	B	C
Nominal voltage UN	300 V	300 V	150 V
Nominal current IN	10 A	10 A	20 A
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12

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EAC		EAC-Zulassung
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>
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