

# STIO 2,5/3-2B/L-LA24GN/O-M - Initiator/actuator terminal block



3209031

<https://www.phoenixcontact.com/us/products/3209031>

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Initiator/actuator terminal block, nom. voltage: 24 V, nominal current: 18 A, number of connections: 4, 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 type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- 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
- Easy bridging and potential distribution using the patented plug-in bridges from the CLIPLINE complete system
- Versions with LED for indicating the switching states
- The upper level is for signal wiring, whereas the two lower levels are used to distribute the positive and negative potential
- Potential is supplied via the STIO-IN power terminal blocks
- For space and time-saving wiring of three-conductor initiators and actuators

## Commercial data

Item number	3209031
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2117
GTIN	4046356143523
Weight per piece (including packing)	10.263 g
Weight per piece (excluding packing)	9.277 g
Customs tariff number	85369010
Country of origin	TR

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## Technical data

### Notes

#### General

Note	Current and voltage are determined by the resistance and the light indicator.
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### Product properties

Product type	Sensor/actuator terminal block
Number of connections	4
Number of rows	3

#### 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
LED voltage range	15 V DC ... 30 V DC
LED current range	1 mA ... 2.5 mA

### Input data

LED voltage range	15 V DC ... 30 V DC
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### Connection data

Number of connections per level	2
Nominal cross section	2.5 mm <sup>2</sup>
Connection method	Spring-cage connection
Stripping length	8 mm ... 10 mm
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 (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>
Nominal cross section	2.5 mm <sup>2</sup>
Nominal current	18 A
Maximum load current	18 A (with 4 mm <sup>2</sup> conductor cross-section)
Nominal voltage	24 V (Light indicator, green)

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## Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	75 mm
Depth on NS 35/7,5	44.5 mm
Depth on NS 35/15	52 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
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °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)	28 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

### 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

### Attachment on the carrier

Result	Test passed
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## Environmental and real-life conditions

### Oscillation/broadband noise

Specification	EN 50155:2021-07
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

### Shocks

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 ... 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

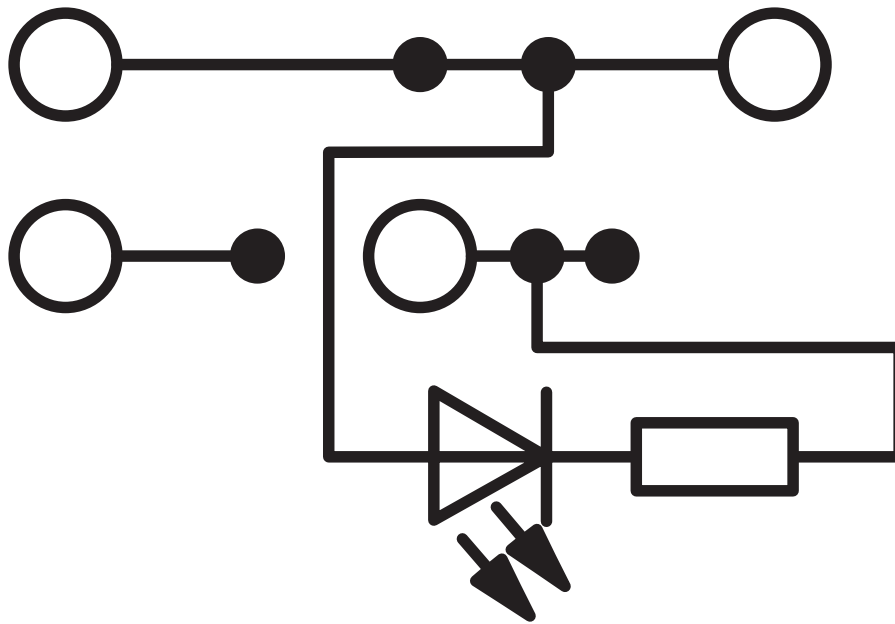
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## Drawings

Circuit diagram



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## Approvals

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**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	Cross section $\text{mm}^2$
B	300 V	10 A	28 - 12	-
C	150 V	18 A	28 - 12	-
D	300 V	10 A	28 - 12	-



**EAC**

Approval ID: KZ7500651131219505

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## Classifications

### ECLASS

ECLASS-13.0	27250112
ECLASS-15.0	27250112

### ETIM

ETIM 10.0	EC000900
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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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
SCIP	632c5754-50a8-44ad-91bf-000474f20378

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