

STIO-IN 2,5/4-PE OG - Installation protective conductor terminal block



3209109

<https://www.phoenixcontact.com/us/products/3209109>

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Installation protective conductor terminal block, nom. voltage: 250 V, nominal current: 30 A, number of connections: 5, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: orange

Your advantages

- Upper level for signal wiring

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3209109 |
| Packing unit | 25 pc |
| Minimum order quantity | 25 pc |
| Sales key | BE02 |
| Product key | BE2118 |
| GTIN | 4046356143295 |
| Weight per piece (including packing) | 19.264 g |
| Weight per piece (excluding packing) | 16.834 g |
| Customs tariff number | 85369010 |
| Country of origin | TR |

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Technical data

Product properties

| | |
|-----------------------|--------------------------------|
| Product type | Sensor/actuator terminal block |
| Number of connections | 5 |
| 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 |

Connection data

| | |
|---|---|
| Grounding foot | Yes |
| Number of connections per level | 5 |
| Nominal cross section | 2.5 mm ² |
| Connection method | Spring-cage connection |
| Note | Please observe the current carrying capacity of the DIN rails. |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 60947-7-1/IEC 60947-7-2 |
| 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 | 30 A (For central infeed and 4 mm ² conductor cross-section) 18 A (For single-sided infeed and 2.5 mm ² conductor cross-section) |
| Maximum load current | 30 A (with 4 mm ² conductor cross-section) |
| Nominal voltage | 250 V |

Dimensions

| | |
|-----------------|---------|
| Width | 10.4 mm |
| End cover width | 2.2 mm |
| Height | 92.3 mm |

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| | |
|--------------------|---------|
| Depth on NS 35/7,5 | 44.5 mm |
| Depth on NS 35/15 | 52 mm |

Material specifications

| | |
|---|-------------------|
| Color | orange (RAL 2003) |
| 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 |

Temperature-rise test

| | |
|--|-------------------------------------|
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |
| Result | Test passed |
| Short-time withstand current 2.5 mm ² | 0.3 kA |
| Result | Test passed |

Power-frequency withstand voltage

| | |
|-----------------------|-------------|
| Test voltage setpoint | 1.5 kV |
| Result | Test passed |

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

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 ² / 0.1 kg |
| | 2.5 mm ² / 0.7 kg |
| | 4 mm ² / 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 |

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/IEC 60947-7-2 |
|----------------------------------|-----------------------------|

Mounting

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

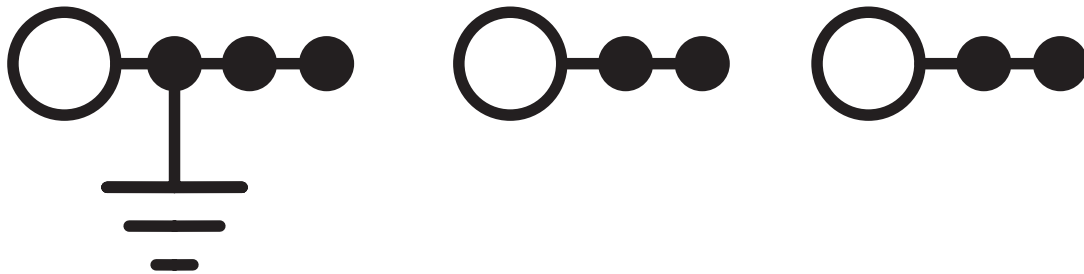
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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3209109>



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 mm^2 |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| B | 300 V | 10 A | 28 - 12 | - |
| C | 150 V | 20 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 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.102 kg CO2e |
|---------|---------------|

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