

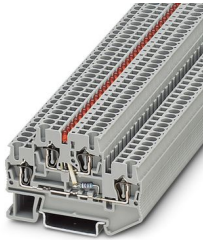
STTB 2,5-LA 24 RD - Component terminal block



3031607

<https://www.phoenixcontact.com/us/products/3031607>

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Component terminal block, nom. voltage: 250 V, nominal current: 22 A, 1st and 2nd level, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², mounting: NS 35/7,5, NS 35/15, color: gray

Your advantages

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

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 3031607 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | BE02 |
| Product key | BE2174 |
| Catalog page | Page 219 (C-1-2019) |
| GTIN | 4017918183110 |
| Weight per piece (including packing) | 10.942 g |
| Weight per piece (excluding packing) | 10.942 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

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Technical data

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 |
| LED voltage range | 12 V DC ... 30 V DC |
| LED current range | 0.8 mA ... 2.4 mA |

Input data

| | |
|-------------------|---------------------|
| LED voltage range | 12 V DC ... 30 V DC |
|-------------------|---------------------|

Connection data

| | |
|---------------------------------|---------------------|
| Number of connections per level | 2 |
| Nominal cross section | 2.5 mm ² |

1st and 2nd level

| | |
|---|---|
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A3 |
| 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 current | 22 A |
| Maximum load current | 26 A (with 4 mm ² conductor cross section) |
| Nominal voltage | 250 V (the operating voltage is determined by the selected LED version) |
| Nominal cross section | 2.5 mm ² |

Dimensions

| | |
|-----------------|--------|
| Width | 5.2 mm |
| End cover width | 2.2 mm |

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| | |
|--------------------|---------|
| Height | 67.5 mm |
| Depth on NS 35/7,5 | 47.5 mm |
| Depth on NS 35/15 | 55 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

| | |
|--|-------------------------------------|
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |
| Result | Test passed |
| Short-time withstand current 2.5 mm ² | 0.3 kA |
| Short-time withstand current 4 mm ² | 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 |
|-----------------|-----|

Mechanical tests

Mechanical strength

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| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

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 |

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 ²) ² /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 ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
|---------------------------------|--|

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

Mounting

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

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