

Mini feed-through terminal block - MSB 2,5-NS 35 BU



3244122

<https://www.phoenixcontact.com/de/produkte/3244122>

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Mini feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, connection method: Spring-cage connection, 1 level, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Clear arrangement thanks to marking of all terminal points

Commercial Data

| | |
|--------------------------------------|---------------------|
| Item number | 3244122 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales Key | A1 - Reihenklemmen |
| Product Key | BE2161 |
| Catalog Page | Page 223 (C-1-2019) |
| GTIN | 4046356145466 |
| Weight per Piece (including packing) | 4,689 g |
| Weight per Piece (excluding packing) | 4 g |
| Customs tariff number | 85369010 |
| Country of origin | CN |

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Technical Data

Product properties

| | |
|-----------------------|--------------------------|
| Product type | Miniature terminal block |
| Number of connections | 2 |
| Number of rows | 1 |
| Potentials | 1 |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution | 3 |

Electrical properties

| | |
|---|--------|
| Rated surge voltage | 8 kV |
| Maximum power dissipation for nominal condition | 0.77 W |

Connection data

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

1 level

| | |
|---|---|
| Stripping length | 8 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross section solid | 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) |
| Flexible conductor cross section flexible (ferrule, w/o 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 | 24 A |
| Maximum load current | 30 A (with 4 mm ² conductor cross section) |
| Nominal voltage | 800 V |
| Nominal cross section | 2.5 mm ² |
| Connection in acc. with standard | IEC/EN 60079-7 |

Ex data

Rated data (ATEX/IECEx)

| | |
|-----------------------------|------------------------|
| Identification | □ II 2 G Ex eb IIC Gb |
| Operating temperature range | -60 °C ... 110 °C |
| | 3024193 D-MZB 1,5-NS35 |

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| | |
|--------------------------|---|
| Ex-certified accessories | 1204517 SZF 1-0,6X3,5 3022276 CLIPFIX 35-5 |
| Ex temperature increase | 40 K (21.3 A / 2.5 mm ²) |
| Rated voltage | 690 V |
| Rated insulation voltage | 630 V |
| output | (Permanent) |

Ex level General

| | |
|----------------------|---------|
| Rated current | 21 A |
| Maximum load current | 26 A |
| Contact resistance | 0.87 mΩ |

Ex connection data General

| | |
|------------------------------|--|
| Nominal cross section | 2.5 mm ² |
| Rated cross section AWG | 14 |
| Connection capacity rigid | 0.08 mm ² ... 4 mm ² |
| Connection capacity AWG | 28 ... 12 |
| Connection capacity flexible | 0.08 mm ² ... 2.5 mm ² |
| Connection capacity AWG | 28 ... 14 |

Dimensions

| | |
|------------------|---------|
| Width | 5.2 mm |
| End cover width | 4 mm |
| Height | 22 mm |
| Height NS 35/15 | 39.5 mm |
| Height NS 35/7,5 | 32 mm |
| Length | 42.7 mm |

Material specifications

| | |
|---|-------------|
| Color | blue |
| 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 |

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Electrical tests

Surge voltage test

| | |
|--------|-------------|
| 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 |
| | 0.48 kA |
| Result | Test passed |

Power-frequency withstand voltage

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

Mechanical properties

Mechanical data

| | |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

Mechanical tests

Mechanical strength

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

Attachment on the carrier

| | |
|-------------------------|-------------|
| DIN rail/fixing support | NS 32/NS 35 |
| Result | Test passed |

Test for conductor damage and slackening

| | |
|--------------------------------|-------------------------------|
| Rotation speed | 10 (+/- 2) rpm |
| Revolutions | 135 |
| Conductor cross section/weight | 0.14 mm ² / 0.2 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

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| | |
|------------------------|--|
| Specification | DIN EN 50155 (VDE 0115-200):2018-05 |
| 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 |

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.) |

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

Standards and regulations

| | |
|----------------------------------|----------------|
| Connection in acc. with standard | IEC 60947-7-1 |
| | IEC/EN 60079-7 |

Mounting

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

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Drawings

Circuit diagram



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Approvals

| | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  CSA Approval ID: 13631 | | | | |
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | 600 V | 20 A | 28 - 12 | - |
| Use group C | 600 V | 20 A | 28 - 12 | - |
|  IECEE CB Scheme Approval ID: DE1-62820 | | | | |
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 800 V | 24 A | - | 0.2 - 2.5 |
|  VDE Zeichengenehmigung Approval ID: 40029769 | | | | |
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 800 V | 24 A | - | 0.2 - 2.5 |
|  cULus Recognized Approval ID: E60425 | | | | |
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | 600 V | 20 A | 28 - 12 | - |
| Use group C | 600 V | 20 A | 28 - 12 | - |
|  EAC Ex Approval ID: RU C-DE.HA91.B.00066 | | | | |
|  IECEX Approval ID: IECEXPTB08.0048U | | | | |
|  ATEX Approval ID: PTB08ATEX1075U | | | | |
|  CCC Approval ID: 2020322313000629 | | | | |

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NEPSI

Approval ID: GYJ20.1196U



UKCA-EX

Approval ID: CSAE 22UKEX1245U

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27141120 |
| ECLASS-10.0.1 | 27141120 |
| ECLASS-11.0 | 27141120 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC000897 |
|----------|----------|

UNSPSC

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

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Environmental Product Compliance

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

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