

3244148  
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Mini ground terminal block, number of connections: 2, connection method: Spring-cage connection, 1 level, 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: green-yellow

Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 3244148             |
| Packing unit                         | 50 pc               |
| Minimum order quantity               | 1 pc                |
| Product key                          | BE2161              |
| Catalog page                         | Page 223 (C-1-2019) |
| GTIN                                 | 4046356145473       |
| Weight per piece (including packing) | 6.231 g             |
| Weight per piece (excluding packing) | 5.63 g              |
| Customs tariff number                | 85369010            |
| Country of origin                    | CN                  |

# MSB 2,5-NS 35-PE - Mini ground terminal block



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## Technical data

### Product properties

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

### Data management status

|                  |    |
|------------------|----|
| Article revision | 03 |
|------------------|----|

### 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

|                                 |                     |
|---------------------------------|---------------------|
| Grounding foot                  | Yes                 |
| Number of connections per level | 2                   |
| Nominal cross section           | 2.5 mm <sup>2</sup> |

### 1 level

|                                                                   |                                                                |
|-------------------------------------------------------------------|----------------------------------------------------------------|
| Note                                                              | Please observe the current carrying capacity of the DIN rails. |
| Stripping length                                                  | 8 mm                                                           |
| Internal cylindrical gage                                         | A3                                                             |
| Connection in acc. with standard                                  | IEC 60947-7-2                                                  |
| 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>                   |
| Nominal cross section                                             | 2.5 mm <sup>2</sup>                                            |
| Connection in acc. with standard                                  | IEC/EN 60079-7                                                 |

### Ex data

#### Rated data (ATEX/IECEx)

|                             |                        |
|-----------------------------|------------------------|
| Identification              | Ex II 2 G Ex eb IIC Gb |
| Operating temperature range | -60 °C ... 110 °C      |
| Ex-certified accessories    | 3024193 D-MZB 1,5-NS35 |
|                             | 1204517 SZF 1-0,6X3,5  |
|                             | 3022276 CLIPFIX 35-5   |

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|        |             |
|--------|-------------|
| output | (Permanent) |
|--------|-------------|

## Ex connection data General

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

## Dimensions

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

## Material specifications

|                                                                         |              |
|-------------------------------------------------------------------------|--------------|
| Color                                                                   | green-yellow |
| 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       |

## Mechanical properties

### Mechanical data

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

## Environmental and real-life conditions

### Oscillation/broadband noise

|               |                                                     |
|---------------|-----------------------------------------------------|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03                 |
| Spectrum      | Service life test category 1, class B, body mounted |

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|                        |                                                |
|------------------------|------------------------------------------------|
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$ |
| ASD level              | 0.02g <sup>2</sup> /Hz                         |
| Acceleration           | 0.8g                                           |
| 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                   | 5g                                  |
| Shock duration                 | 30 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 ... 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 60947-7-2  |
|                                  | IEC/EN 60079-7 |

## Mounting

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

# MSB 2,5-NS 35-PE - Mini ground terminal block

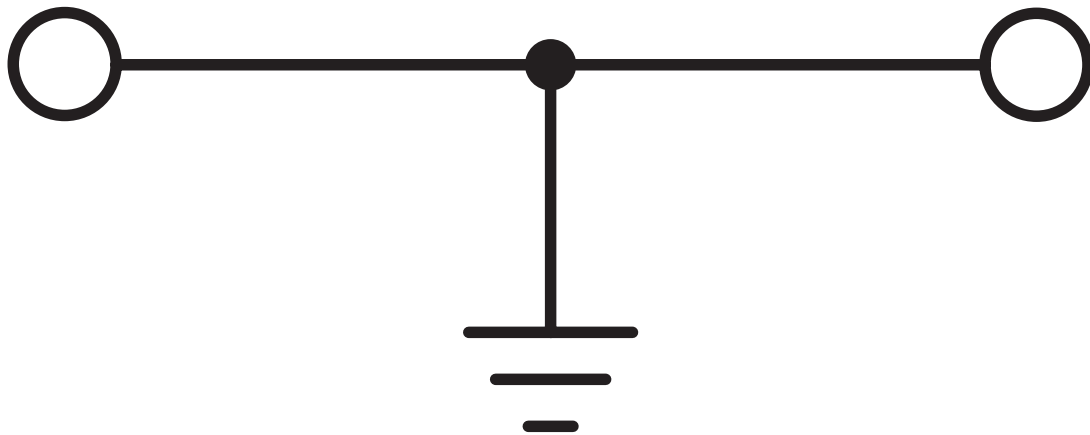
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## Drawings

Circuit diagram



# MSB 2,5-NS 35-PE - Mini ground terminal block



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3244148>

|                                                                                                                    |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>CSA</b><br>Approval ID: 13631 |                       |                       |                   |                             |
|                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                    | -                     | -                     | 28 - 12           | -                           |

|                                                                                                                                    |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>IECEE CB Scheme</b><br>Approval ID: DE1-63050 |                       |                       |                   |                             |
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                    | -                     | -                     | -                 | 0.2 - 2.5                   |

|                                                                                                                                   |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cULus Recognized</b><br>Approval ID: E60425 |                       |                       |                   |                             |
|                                                                                                                                   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                       |                       |                       |                   |                             |
|                                                                                                                                   | -                     | -                     | 28 - 12           | -                           |
| Use group C                                                                                                                       |                       |                       |                   |                             |
|                                                                                                                                   | -                     | -                     | 28 - 12           | -                           |
| Use group D                                                                                                                       |                       |                       |                   |                             |
|                                                                                                                                   | -                     | -                     | 28 - 12           | -                           |

|                                                                                                                                            |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40037304 |                       |                       |                   |                             |
|                                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                            | -                     | -                     | -                 | 0.2 - 2.5                   |

|                                                                                                                                        |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>EAC Ex</b><br>Approval ID: RU C-DE.HA91.B.00066 |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                   |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>IECEx</b><br>Approval ID: IECExPTB08.0048U |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>ATEX</b><br>Approval ID: PTB08ATEX1075U |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                 |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>CCC</b><br>Approval ID: 2020322313000629 |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

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**UKCA-EX**

Approval ID: CSAE 22UKEX1245U

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141141 |
| ECLASS-13.0 | 27250103 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000901 |
|----------|----------|

### 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%               |

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