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## Mini feed-through terminal block - MSBV 2,5 - 3249017

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Mini feed-through terminal block, Connection method: Spring-cage connection, Cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 28 - 12, Width: 5.2 mm, Height: 22 mm, Color: gray, Mounting type: NS 15

### Product Features

- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Clear arrangement thanks to marking of all terminal points
- Easy potential distribution thanks to standardized plug-in bridges



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Minimum order quantity               | 50 pc    |
| Weight per Piece (excluding packing) | 4.4 g    |
| Custom tariff number                 | 85369010 |
| Country of origin                    | China    |

### Technical data

#### General

|  |                     |
|--|---------------------|
| Number of levels                       | 1                   |
| Number of connections                  | 2                   |
| Nominal cross section                  | 2.5 mm <sup>2</sup> |
| Color                                  | gray                |
| Insulating material                    | PA                  |
| Flammability rating according to UL 94 | V0                  |
| Rated surge voltage                    | 8 kV                |
| Pollution degree                       | 3                   |
| Overvoltage category                   | III                 |
| Insulating material group              | I                   |

## Mini feed-through terminal block - MSBV 2,5 - 3249017

### Technical data

#### General

|   |   |
|---|---|
| Connection in acc. with standard  | IEC 60947-7-1   |
| Maximum load current  | 30 A (with 4 mm <sup>2</sup> conductor cross section) |
| Nominal current I <sub>N</sub>  | 24 A  |
| Nominal voltage U <sub>N</sub>  | 800 V   |
| Open side panel   | JA  |
| Shock protection test specification   | DIN EN 50274 (VDE 0660-514):2002-11                   |
| Back of the hand protection   | guaranteed  |
| Finger protection   | guaranteed  |
| Result of surge voltage test  | Test passed   |
| Surge voltage test setpoint   | 9.8 kV  |
| Result of power-frequency withstand voltage test  | Test passed   |
| Power frequency withstand voltage setpoint  | 2 kV  |
| Result of the test for mechanical stability of terminal points (5 x conductor connection) | Test passed   |
| Result of bending test  | Test passed   |
| Bending test rotation speed   | 10 rpm  |
| Bending test turns  | 135   |
| Bending test conductor cross section/weight   | 0.08 mm <sup>2</sup> / 0.1 kg                         |
|   | 2.5 mm <sup>2</sup> / 0.7 kg                          |
|   | 4 mm <sup>2</sup> / 0.9 kg                            |
| Tensile test result   | Test passed   |
| Conductor cross section tensile test  | 0.08 mm <sup>2</sup>                                  |
| Tractive force setpoint   | 5 N   |
| Conductor cross section tensile test  | 2.5 mm <sup>2</sup>                                   |
| Tractive force setpoint   | 50 N  |
| Conductor cross section tensile test  | 4 mm <sup>2</sup>                                     |
| Tractive force setpoint   | 60 N  |
| Result of tight fit on support  | Test passed   |
| Tight fit on carrier  | NS 15   |
| Setpoint  | 1 N   |
| Result of voltage-drop test   | Test passed   |
| Requirements, voltage drop  | ≤ 3.2 mV  |
| Result of temperature-rise test   | Test passed   |
| Short circuit stability result  | Test passed   |
| Conductor cross section short circuit testing   | 2.5 mm <sup>2</sup>                                   |
| Short-time current  | 0.3 kA  |
| Conductor cross section short circuit testing   | 4 mm <sup>2</sup>                                     |

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### Technical data

#### General

|   |   |
|---|---|
| Short-time current  | 0.48 kA   |
| Result of aging test  | Test passed   |
| Ageing test for screwless modular terminal block temperature cycles     | 192   |
| Result of thermal test  | Test passed   |
| Proof of thermal characteristics (needle flame) effective duration      | 30 s  |
| Oscillation, broadband noise test result                                | Test passed   |
| Test specification, oscillation, broadband noise                        | DIN EN 50155 (VDE 0115-200):2008-03                 |
| Test spectrum   | Service life test category 1, class B, body mounted |
| Test frequency  | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| ASD level   | 0.02 g <sup>2</sup> /Hz                             |
| Acceleration  | 0.8g  |
| Test duration per axis  | 5 h   |
| Test directions   | X-, Y- and Z-axis                                   |
| Shock test result   | Test passed   |
| Test specification, shock test  | DIN EN 50155 (VDE 0115-200):2008-03                 |
| Shock form  | Half-sine   |
| Acceleration  | 5 g   |
| Shock duration  | 30 ms   |
| Number of shocks per direction  | 3   |
| Test directions   | X-, Y- and Z-axis (pos. and neg.)                   |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C  |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C  |

#### Dimensions

|                 |        |
|-----------------|--------|
| Width           | 5.2 mm |
| End cover width | 4 mm   |
| Length          | 32 mm  |
| Height          | 22 mm  |
| Height NS 15    | 30 mm  |

#### Connection data

|                                       |                        |
|---------------------------------------|------------------------|
| Connection method                     | Spring-cage connection |
| Connection in acc. with standard      | IEC 60947-7-1          |
| Conductor cross section solid min.    | 0.08 mm <sup>2</sup>   |
| Conductor cross section solid max.    | 4 mm <sup>2</sup>      |
| Conductor cross section AWG min.      | 28                     |
| Conductor cross section AWG max.      | 12                     |
| Conductor cross section flexible min. | 0.08 mm <sup>2</sup>   |



## Mini feed-through terminal block - MSBV 2,5 - 3249017

### Technical data

#### Connection data

|   |                      |
|---|----------------------|
| Conductor cross section flexible max.   | 2.5 mm <sup>2</sup>  |
| Min. AWG conductor cross section, flexible  | 28                   |
| Max. AWG conductor cross section, flexible  | 14                   |
| Conductor cross section flexible, with ferrule without plastic sleeve min.              | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max.              | 2.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve min.                 | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve max.                 | 2.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 0.5 mm <sup>2</sup>  |
| Connection in acc. with standard  | IEC/EN 60079-7       |
| Stripping length  | 8 mm                 |
| Internal cylindrical gage   | A3                   |

#### Standards and Regulations

|  |               |
|--|---------------|
| Connection in acc. with standard       | CSA           |
|  | IEC 60947-7-1 |
| Flammability rating according to UL 94 | V0            |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27141120 |
| eCl@ss 4.1 | 27141120 |
| eCl@ss 5.0 | 27141120 |
| eCl@ss 5.1 | 27141120 |
| eCl@ss 6.0 | 27141120 |
| eCl@ss 7.0 | 27141120 |
| eCl@ss 8.0 | 27141120 |
| eCl@ss 9.0 | 27141120 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000902 |
| ETIM 3.0 | EC000902 |
| ETIM 4.0 | EC000902 |
| ETIM 5.0 | EC000897 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211811 |
| UNSPSC 7.0901 | 39121410 |

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## Classifications

### UNSPSC

|              |          |
|--------------|----------|
| UNSPSC 11    | 39121410 |
| UNSPSC 12.01 | 39121410 |
| UNSPSC 13.2  | 39121410 |

## Approvals

### Approvals


#### Approvals


UL Recognized / VDE Zeichengenehmigung / cUL Recognized / CSA / IEC/IEC CB Scheme / EAC / EAC / cULus Recognized

#### Ex Approvals

#### Approvals submitted

## Approval details

|   |       |       |       |       |
|---|-------|-------|-------|-------|
| UL Recognized  |       |       |       |       |
|   |       | B     | C     | D     |
| mm <sup>2</sup> /AWG/kcmil  | 28-12 | 28-12 | 28-12 | 28-12 |
| Nominal current I <sub>N</sub>  | 20 A  | 20 A  | 20 A  | 5 A   |
| Nominal voltage U <sub>N</sub>  | 600 V | 300 V | 300 V | 600 V |

|  |         |
|--|---------|
| VDE Zeichengenehmigung  |         |
| mm <sup>2</sup> /AWG/kcmil   | 0.2-2.5 |
| Nominal current I <sub>N</sub>   | 24 A    |
| Nominal voltage U <sub>N</sub>   | 800 V   |

# Mini feed-through terminal block - MSBV 2,5 - 3249017

## Approvals

cUL Recognized

|                                |       | B     | C     | D     |
|--------------------------------|-------|-------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil     | 28-12 | 28-12 | 28-12 | 28-12 |
| Nominal current I <sub>N</sub> | 20 A  | 20 A  | 20 A  | 5 A   |
| Nominal voltage U <sub>N</sub> | 600 V | 300 V | 300 V | 600 V |

CSA

|                                | B     | C     | D     |
|--------------------------------|-------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil     | 28-12 | 28-12 | 28-12 |
| Nominal current I <sub>N</sub> | 20 A  | 20 A  | 20 A  |
| Nominal voltage U <sub>N</sub> | 600 V | 600 V | 600 V |

IECEE CB Scheme

| mm <sup>2</sup> /AWG/kcmil     | 0.2-2.5 |
|--------------------------------|---------|
| Nominal voltage U <sub>N</sub> | 800 V   |

EAC

EAC

cULus Recognized

## Drawings

Circuit diagram



