

## PCB terminal block - MKDS 1/ 4-3,5 BD:1-4 - 1706293

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PCB terminal block, nominal current: 13.5 A, nom. voltage: 200 V, pitch: 3.5 mm, number of positions: 4, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green



The figure shows a 10-position version of the product

### Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Extremely small design for the respective conductor cross section



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 50 pc                                                                                                   |
| GTIN         | <br>4 017918 228620 |
| GTIN         | 4017918228620                                                                                           |

### Technical data

#### Item properties

|                           |                                      |
|---------------------------|--------------------------------------|
| Brief article description | PCB terminal block                   |
| Range of articles         | MKDS 1                               |
| Pitch                     | 3.5 mm                               |
| Number of positions       | 4                                    |
| Connection method         | Screw connection with tension sleeve |
| Drive form screw head     | Slotted (L)                          |
| Screw thread              | M2                                   |
| Mounting type             | Wave soldering                       |
| Pin layout                | Linear pinning                       |
| Number of levels          | 1                                    |

#### Electrical parameters

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## Technical data

### Electrical parameters

|                                  |        |
|----------------------------------|--------|
| Rated current                    | 13.5 A |
| Rated insulation voltage (III/2) | 200 V  |
| Rated surge voltage (III/2)      | 2.5 kV |

### Connection capacity

|                                                                       |                                               |
|-----------------------------------------------------------------------|-----------------------------------------------|
| Conductor cross section solid                                         | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible                                      | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG / kcmil                                   | 26 ... 16                                     |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>  |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, solid                           | 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible                        | 0.14 mm <sup>2</sup> ... 0.34 mm <sup>2</sup> |
| Stripping length                                                      | 5 mm                                          |
| Torque                                                                | 0.22 Nm ... 0.25 Nm                           |

### Material data - contact

|                                             |                                                                                   |
|---------------------------------------------|-----------------------------------------------------------------------------------|
| Note                                        | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material                            | Cu alloy                                                                          |
| Metal surface terminal point (top layer)    | Tin (5 - 7 µm Sn)                                                                 |
| Metal surface terminal point (middle layer) | Nickel (2 - 3 µm Ni)                                                              |
| Metal surface soldering area (top layer)    | Tin (5 - 7 µm Sn)                                                                 |
| Metal surface soldering area (middle layer) | Nickel (2 - 3 µm Ni)                                                              |

### Material data - housing

|                                                                   |        |
|-------------------------------------------------------------------|--------|
| Insulating material                                               | PA     |
| Insulating material group                                         | I      |
| CTI according to IEC 60112                                        | 600    |
| Flammability rating according to UL 94                            | V0     |
| Glow wire flammability index GWFI according to EN 60695-2-12      | 850    |
| Glow wire ignition temperature GWIT according to EN 60695-2-13    | 775    |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

### Dimensions for the product

|                             |              |
|-----------------------------|--------------|
| Length [ l ]                | 7.3 mm       |
| Width [ w ]                 | 14.5 mm      |
| Height [ h ]                | 12 mm        |
| Pitch                       | 3.5 mm       |
| Height (without solder pin) | 8.5 mm       |
| Solder pin [P]              | 3.5 mm       |
| Pin dimensions              | 0.5 x 0.9 mm |
| Dimension a                 | 10.5 mm      |

### Dimensions for PCB design

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## Technical data

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.1 mm |
|---------------|--------|

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 50                  |
| Denomination packing units | Pcs.                |

### General product information

|              |                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of note | Note on application                                                                                                                                                                                                                                                                                                                                                |
| Note         | For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing). |

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly)          | -5 °C ... 100 °C |
| Ambient temperature (operation)         | -40 °C           |

### Electrical tests

|                                  |        |
|----------------------------------|--------|
| Rated current                    | 13.5 A |
| Rated insulation voltage (III/2) | 200 V  |
| Rated surge voltage (III/2)      | 2.5 kV |

### Air clearances and creepage distances

|                                  |        |
|----------------------------------|--------|
| Insulating material group        | I      |
| Voltage                          | 160 V  |
| Rated insulation voltage (III/3) | 160 V  |
| Rated insulation voltage (III/2) | 200 V  |
| Rated insulation voltage (II/2)  | 400 V  |
| Rated surge voltage (III/3)      | 2.5 kV |
| Rated surge voltage (III/2)      | 2.5 kV |
| Rated surge voltage (II/2)       | 2.5 kV |

### Standards and Regulations

|                                  |        |
|----------------------------------|--------|
| Connection in acc. with standard | EN-VDE |
|                                  | CSA    |

### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## PCB terminal block - MKDS 1/ 4-3,5 BD:1-4 - 1706293

### Approvals

#### Approvals

#### Approvals

CSA / IECCEB CB Scheme / SEV / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

|                    |                                                                                   |                                                                                                                                         |       |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                    | D                                                                                 | B                                                                                                                                       |       |
| Nominal voltage UN | 300 V                                                                             | 150 V                                                                                                                                   |       |
| Nominal current IN | 10 A                                                                              | 10 A                                                                                                                                    |       |
| mm²/AWG/kcmil      | 28-16                                                                             | 28-16                                                                                                                                   |       |

|                    |                                                                                     |                                                           |         |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|---------|
| IECEE CB Scheme    |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | CH-8225 |
| Nominal voltage UN | 125 V                                                                               |                                                           |         |
| Nominal current IN | 12 A                                                                                |                                                           |         |
| mm²/AWG/kcmil      | 1.5                                                                                 |                                                           |         |

|                    |                                                                                     |                                                                                                                                                     |            |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| SEV                |  | <a href="https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html">https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html</a> | IK-3542-M1 |
| Nominal voltage UN | 125 V                                                                               |                                                                                                                                                     |            |
| Nominal current IN | 12 A                                                                                |                                                                                                                                                     |            |
| mm²/AWG/kcmil      | 1.5                                                                                 |                                                                                                                                                     |            |

|     |                                                                                     |  |         |
|-----|-------------------------------------------------------------------------------------|--|---------|
| EAC |  |  | B.01742 |
|-----|-------------------------------------------------------------------------------------|--|---------|

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### Approvals

|                                                                                                                                                                                                                                                                          |       |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| cULus Recognized  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> E60425-19770427 |       |       |
|                                                                                                                                                                                                                                                                          | D     | B     |
| Nominal voltage UN                                                                                                                                                                                                                                                       | 300 V | 300 V |
| Nominal current IN                                                                                                                                                                                                                                                       | 10 A  | 10 A  |
| mm²/AWG/kcmil                                                                                                                                                                                                                                                            | 30-16 | 30-16 |

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