# PCB terminal block - MKDSN 1,5/10-5,08 - 1729209

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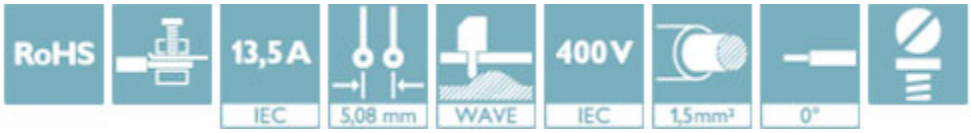


The figure shows a 10-position version of the product

PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², pitch: 5.08 mm, number of positions: 10, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm

## 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
- The latching on the side enables various numbers of positions to be combined




## Key Commercial Data

| | |
|---|---|
| Packing unit | 1 pc |
| Minimum order quantity | 100 pc |
| GTIN | 4 017918 026073 |
| GTIN | 4017918026073 |
| Weight per Piece (excluding packing) | 9.740 g |
| Custom tariff number | 85369010 |
| Country of origin | Germany |

## Technical data

### Item properties

| | |
|---|---|
| Brief article description | PCB terminal block |
| Range of articles | MKDSN 1,5 |
| Pitch | 5.08 mm |

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## Technical data

### Item properties

| | |
|---|---|
| Number of positions | 10 |
| Connection method | Screw connection with tension sleeve |
| Drive form screw head | Slotted (L) |
| Screw thread | M3 |
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Number of levels | 1 |
| Number of connections | 10 |
| Number of potentials | 10 |

### Electrical parameters

| | |
|---|---|
| Nominal current | 13.5 A |
| Nom. voltage | 400 V |
| Rated voltage | 250 V |
| Rated voltage (III/2) | 400 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |

### Connection capacity

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| pluggable | no |
| Conductor cross section solid | 0.14 mm² ... 1.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross section AWG / kcmil | 26 ... 16 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm² ... 1 mm² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm² ... 1.5 mm² |
| 2 conductors with same cross section, solid | 0.14 mm² ... 0.75 mm² |
| 2 conductors with same cross section, flexible | 0.14 mm² ... 0.75 mm² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm² ... 0.5 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² ... 0.75 mm² |
| Stripping length | 6 mm |
| Torque | 0.5 Nm ... 0.6 Nm |

### Material data - contact

| | |
|---|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |

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## Technical data

### Material data - contact

| | |
|---|---|
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| 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

| | |
|---|---|
| Housing color | green (6021) |
| 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

| | |
|---|---|
| Caption | Schematic representation – for additional information, see product range drawing in the Download Center |
| Length [ l ] | 8.1 mm |
| Width [ w ] | 50.8 mm |
| Height [ h ] | 13.5 mm |
| Pitch | 5.08 mm |
| Height (without solder pin) | 10 mm |
| Solder pin [P] | 3.5 mm |
| Pin dimensions | 0.5 x 1 mm |

### Dimensions for PCB design

| | |
|---|---|
| Hole diameter | 1.3 mm |

### Packaging information

| | |
|---|---|
| Type of packaging | packed in cardboard |
| Pieces per package | 100 |
| 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 |

# PCB terminal block - MKDSN 1,5/10-5,08 - 1729209

## Technical data

### General product information

| | |
|---|---|
| | 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 ... 100 °C (Depending on the current carrying capacity/derating curve) |

### Termination and connection method

| | |
|---|---|
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
| | Test passed |

### Pull-out test

| | |
|---|---|
| Pull-out test | IEC 60999-1:1999-11 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.14 mm² / flexible / > 10 N |
| | 0.14 mm² / solid / > 10 N |
| | 1.5 mm² / flexible / > 40 N |
| | 1.5 mm² / solid / > 40 N |

### Mechanical tests according to standard

| | |
|---|---|
| Test specification | IEC 60947-7-4 |

### Electrical tests

| | |
|---|---|
| Rated current | 13.5 A |
| Conductor cross section | 1.5 mm² |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |

### Air clearances and creepage distances

| | |
|---|---|
| Clearances and creepage distances | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |
| Specification | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 3.2 mm |
| Minimum creepage distance value (III/2) | 2 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |
| Note on connection cross section | With connected conductor 1.5 mm² (solid). |

### Temperature-rise test

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## Technical data

### Temperature-rise test

| | |
|---|---|
| Result | Test passed |
| Specification | IEC 60947-7-4:2013-08 |

### Current carrying capacity / derating curves

| | |
|---|---|
| Specification | IEC 60947-7-4 |

### Vibration test

| | |
|---|---|
| Specification | IEC 60068-2-6:2007-12 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

### Standards and Regulations

| | |
|---|---|
| Connection in acc. with standard | EN-VDE |
| | CSA |
| Flammability rating according to UL 94 | V0 |

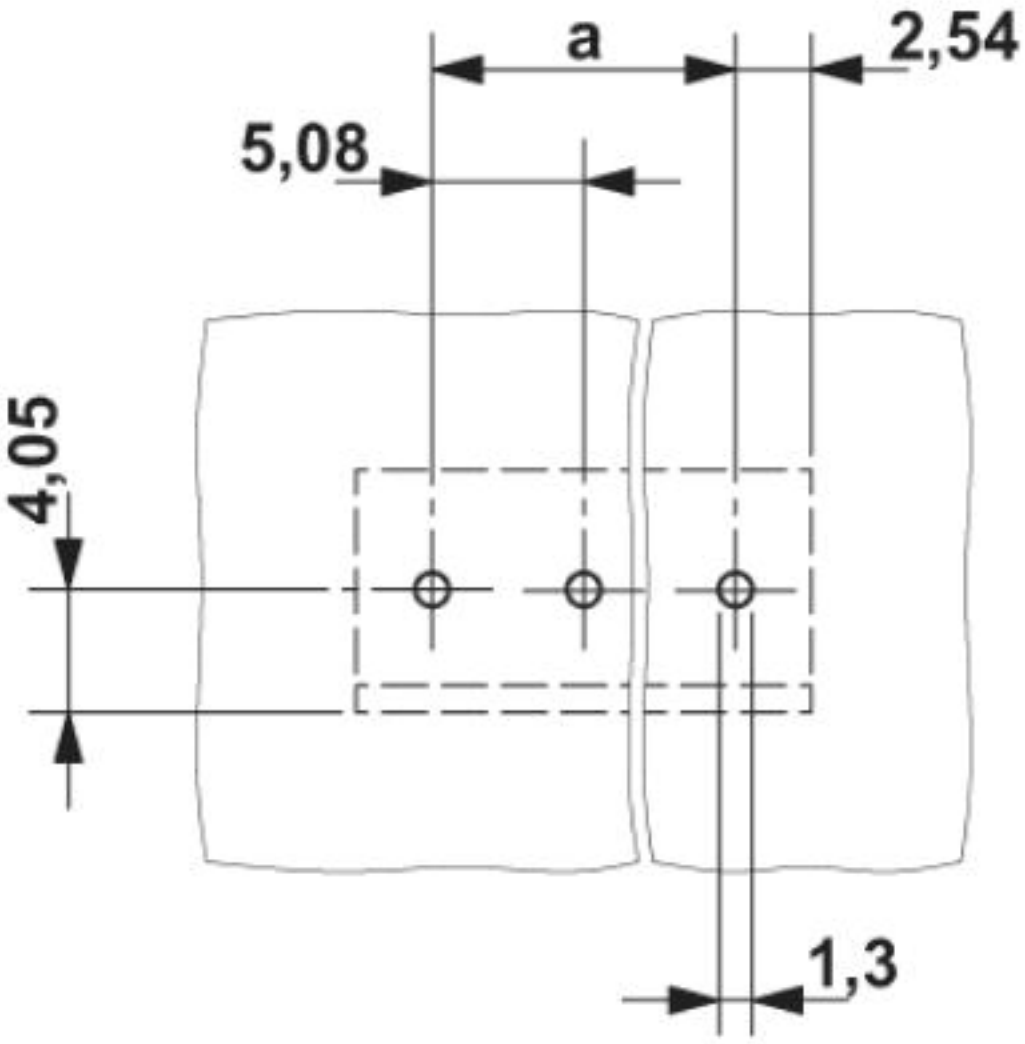
### Environmental Product Compliance

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

## Drawings

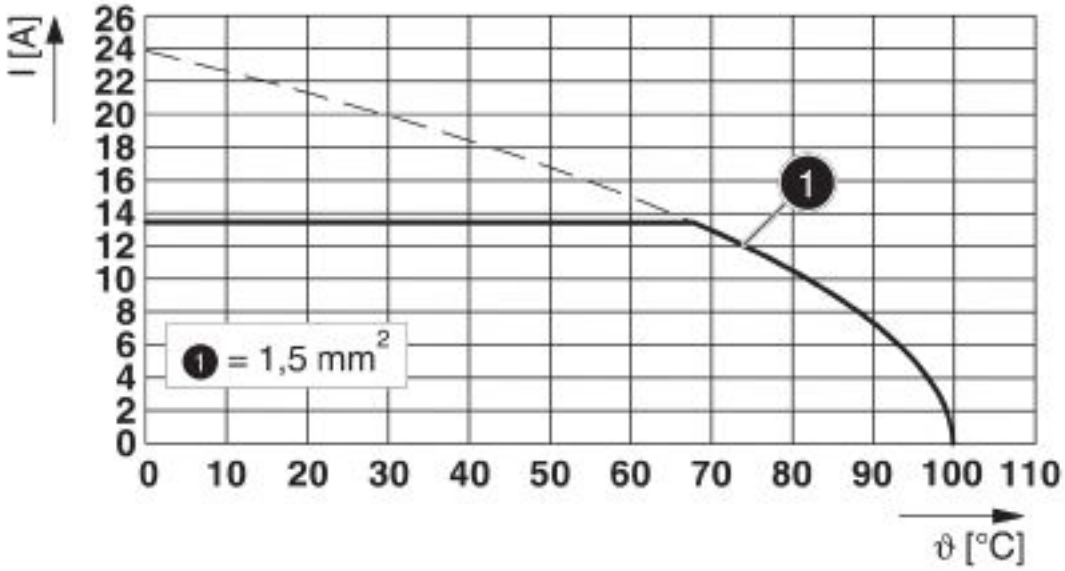
# PCB terminal block - MKDSN 1,5/10-5,08 - 1729209

Drilling diagram



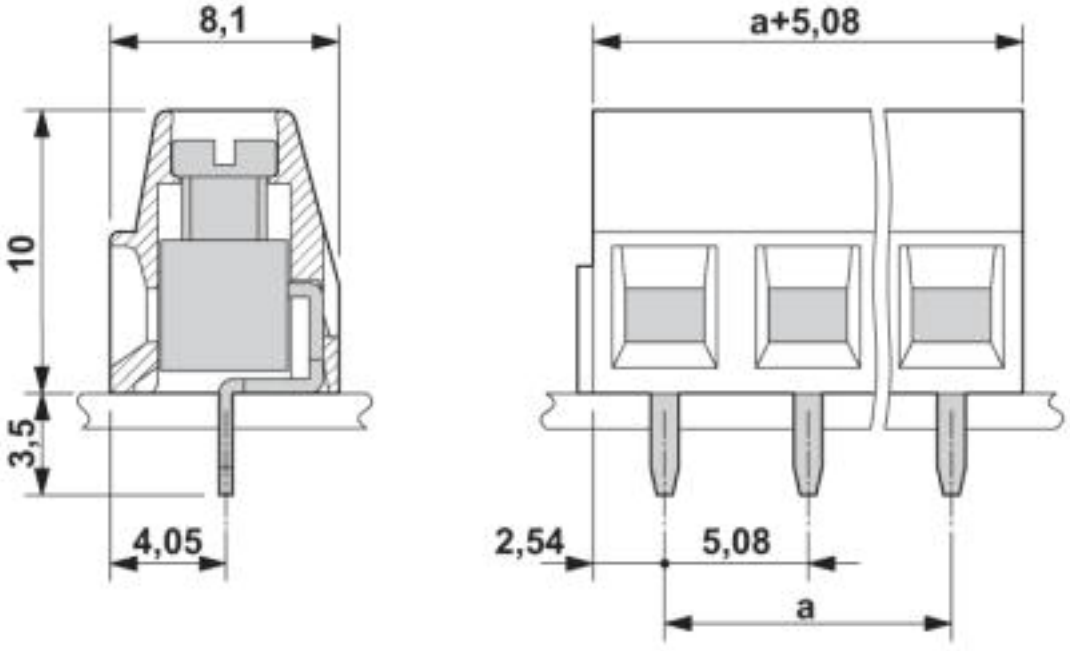
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Diagram




Type: MKDSN 1,5/...

Dimensional drawing



# PCB terminal block - MKDSN 1,5/10-5,08 - 1729209

## Classifications

### eCl@ss

| | |
|---|---|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 4.0 | 27141100 |
| eCl@ss 4.1 | 27141100 |
| eCl@ss 5.0 | 27141100 |
| eCl@ss 5.1 | 27261100 |
| eCl@ss 6.0 | 27261100 |
| eCl@ss 7.0 | 27440401 |
| eCl@ss 8.0 | 27440401 |
| eCl@ss 9.0 | 27440401 |

### ETIM

| | |
|---|---|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

### UNSPSC

| | |
|---|---|
| UNSPSC 6.01 | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11 | 39121432 |
| UNSPSC 12.01 | 39121432 |
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

## Approvals

### Approvals

Approvals

DNV GL / IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals

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## Approvals

### Approval details

| | | |
|---|---|---|
| DNV GL | https://approvalfinder.dnvgl.com/ | TAE00001EV |

| | | |
|---|---|---|
| IECEE CB Scheme | http://www.iecee.org/ | CH-10724-A1 |

| | |
|---|---|
| | |
| Nominal voltage UN | 250 V |
| Nominal current IN | 13.5 A |
| mm²/AWG/kcmil | 1.5 |

| | | |
|---|---|---|
| SEV | https://www.eurofins.ch/de/ | IK-4486-A1 |

| | |
|---|---|
| | |
| Nominal voltage UN | 250 V |
| Nominal current IN | 13.5 A |
| mm²/AWG/kcmil | 1.5 |

| | |
|---|---|
| EAC | B.01687 |

| | | |
|---|---|---|
| cULus Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19770427 |

| | B | D |
|---|---|---|
| Nominal voltage UN | 300 V | 300 V |
| Nominal current IN | 10 A | 10 A |
| mm²/AWG/kcmil | 30-14 | 30-14 |

## Accessories

### Accessories

Labeled terminal marker

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## Accessories

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



Marker card, Card, white, labeled, Horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

### Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

### Terminal marking

Marker card - SK 5,08/3,8:UNBEDRUCKT - 0805412



Marker card, Card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

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