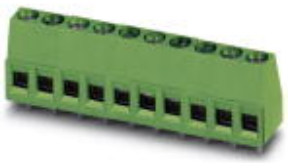
# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

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The figure shows a 10-position version of the product

PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 400 V, Nominal cross section: 1.5 mm², pitch: 5.08 mm, number of positions: 21, 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. The article can be aligned to create different nos. of positions!

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- The latching on the side enables various numbers of positions to be combined




## Key Commercial Data

| | |
|---|---|
| Packing unit | 1 |
| GTIN | 4 046356 299954 |
| GTIN | 4046356299954 |
| Custom tariff number | 85369010 |

## Technical data

### Item properties

| | |
|---|---|
| Brief article description | PCB terminal block |
| Range of articles | MKDS 1,5 |
| Pitch | 5.08 mm |
| Number of positions | 21 |
| Connection method | Screw connection with tension sleeve |
| Drive form screw head | Slotted (L) |
| Screw thread | M3 |

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Technical data

### Item properties

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Number of levels | 1 |
| Number of connections | 21 |
| Number of potentials | 21 |

### Connection capacity

| | |
|---|---|
| Conductor cross section solid | 0.14 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross section AWG / kcmil | 26 ... 14 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm² ... 1.5 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 ... 1 mm² |
| 2 conductors with same cross section, flexible | 0.14 mm² ... 0.75 mm² |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve | 0.25 mm² ... 0.5 mm² |
| 2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve | 0.5 mm² ... 1 mm² |
| Stripping length | 7 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 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn) |
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn) |

### 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

| | |
|---|---|
| Caption | Schematic representation – for additional information, see product range drawing in the Download Center |

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Technical data

### Dimensions for the product

| | |
|---|---|
| Length [ l ] | 9.8 mm |
| Width [ w ] | 106.68 mm |
| Height [ h ] | 17.3 mm |
| Pitch | 5.08 mm |
| Height (without solder pin) | 13.8 mm |
| Solder pin [P] | 3.5 mm |
| Pin dimensions | 0.9 x 0.9 mm |
| Dimension a | 101.6 mm |

### Dimensions for PCB design

| | |
|---|---|
| Hole diameter | 1.3 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 ... 100 °C (Depending on the current carrying capacity/derating curve) |

### Termination and connection method

| | |
|---|---|
| Test for conductor damage and slackening | IEC 60998-2-1:1990-04 |
| | Test passed |

### Pull-out test

| | |
|---|---|
| Pull-out test | IEC 60998-2-1:1990-04 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.14 mm² / solid / > 10 N |
| | 0.14 mm² / flexible / > 10 N |
| | 2.5 mm² / solid / > 50 N |
| | 1.5 mm² / flexible / > 40 N |

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Technical data

### Electrical tests

| | |
|---|---|
| Rated current | 17.5 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

| | |
|---|---|
| Rated insulation voltage (III/3) | 250 V |
| Rated insulation voltage (III/2) | 400 V |
| Rated insulation 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 |
| 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) | 3 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |
| Note on connection cross section | With connected conductor 2.5 mm² (solid). |

### Vibration test

| | |
|---|---|
| Specification | IEC 60068-2-6:1995-03 |
| 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 |

### Resistance to ageing, humidity and penetration of solids

| | |
|---|---|
| Dry heat | 168 h/100°C |
| Humid heat | 48 h/30 °C/92 % |

### Standards and Regulations

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

### Environmental Product Compliance

| | |
|---|---|
| | Lead 7439-92-1 |

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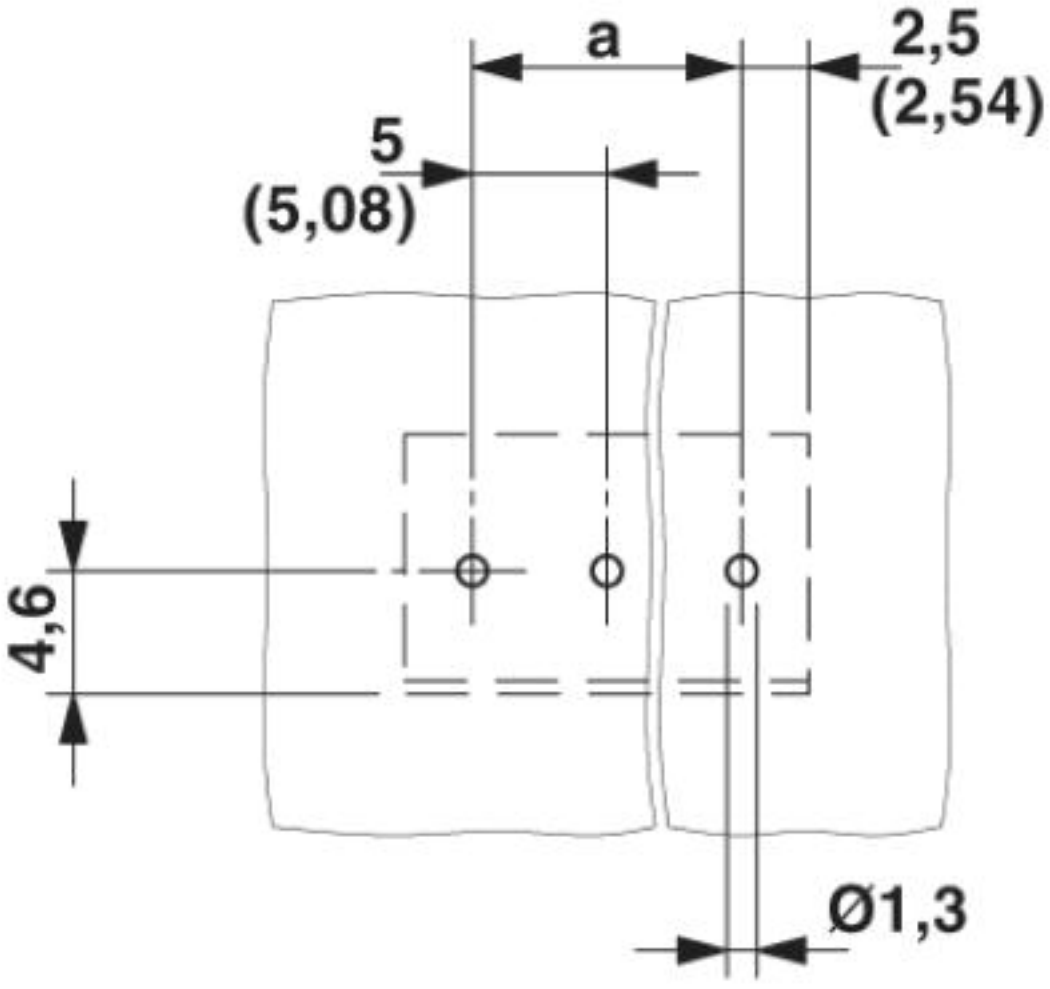
## Technical data

### Environmental Product Compliance

| | |
|---|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration” |

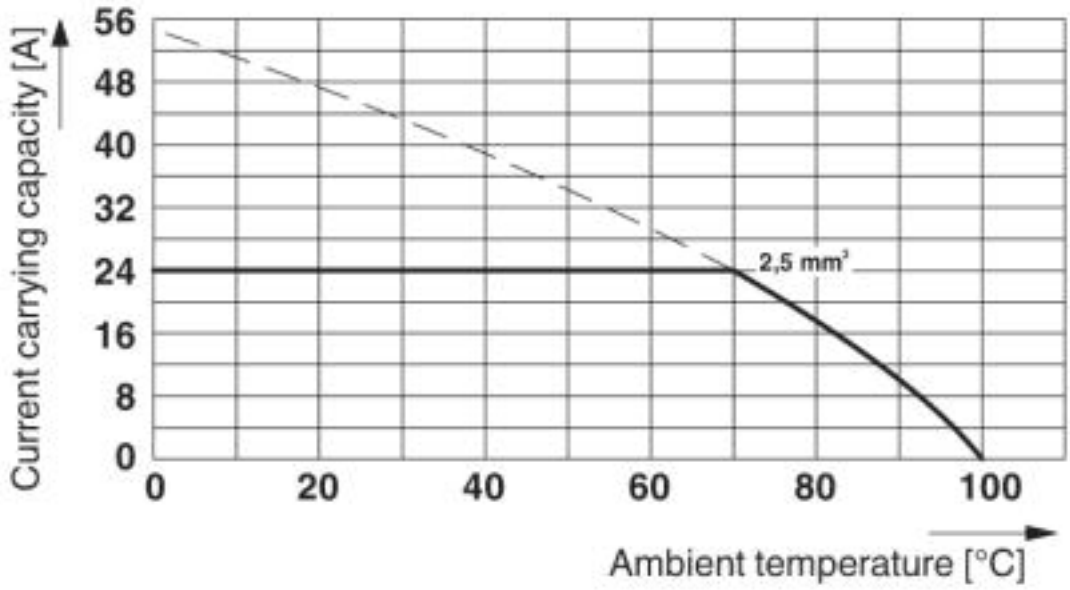
## Drawings

Drilling diagram



# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

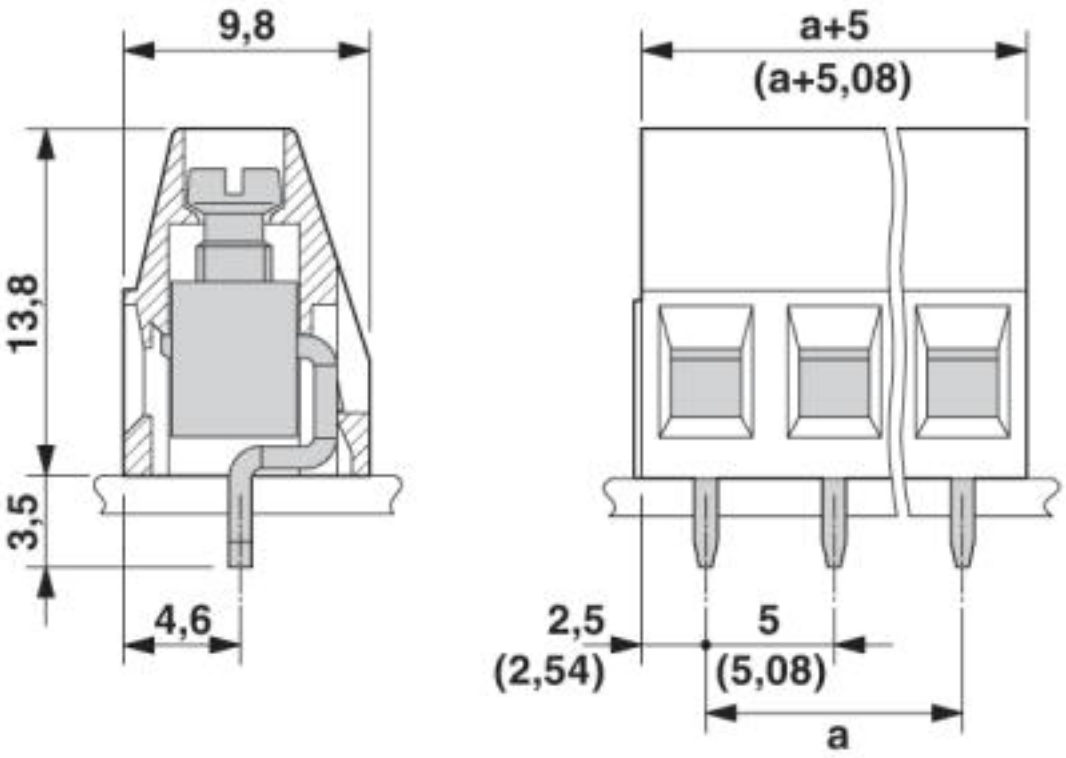
Diagram




Type: MKDS 1,5/2 and MKDS 1,5/3
Test as per DIN EN 60512-5-2:2003-01
Reduction factor = 1
No. of positions: 5

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

Dimensional drawing




## Classifications

### eCl@ss

| | |
|---|---|
| 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 |

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Classifications

### UNSPSC

| | |
|---|---|
| UNSPSC 6.01 | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11 | 39121432 |
| UNSPSC 12.01 | 39121432 |
| UNSPSC 13.2 | 39121432 |

## Approvals

### Approvals

Approvals

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

Ex Approvals

### Approval details

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

| | | | |
|---|---|---|---|
| CSA | | http://www.csagroup.org/services-industries/product-listing/ | 13631 |

| | B | D |
|---|---|---|
| Nominal voltage UN | 300 V | 300 V |
| Nominal current IN | 10 A | 10 A |
| mm²/AWG/kcmil | 28-14 | 28-14 |

| CCA | IK-3249 |
|---|---|
| | |
| Nominal voltage UN | 250 V |
| mm²/AWG/kcmil | 2.5 |

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Approvals

| | | | |
|---|---|---|---|
| IECEE CB Scheme | CB scheme | http://www.iecee.org/ | CH-8225 |

| | |
|---|---|
| Nominal voltage UN | 250 V |
| Nominal current IN | 24 A |
| mm²/AWG/kcmil | 2.5 |

| | | | |
|---|---|---|---|
| SEV | SEV | https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html | IK-4199 |

| | |
|---|---|
| Nominal voltage UN | 250 V |
| Nominal current IN | 24 A |
| mm²/AWG/kcmil | 2.5 |

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

| | | | |
|---|---|---|---|
| cULus Recognized | c UL us | 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 | 15 A | 10 A |
| mm²/AWG/kcmil | 30-14 | 30-14 |

## Accessories

### Accessories

Bridge

Insertion bridge - EBP 2- 5 - 1733169



# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Accessories

Insertion bridge - EBP 3- 5 - 1733172



Insertion bridge - EBP 4- 5 - 1733185



Insertion bridge - EBP 5- 5 - 1733198



Insertion bridge - EBP 6- 5 - 1733208



### Labeled terminal marker

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

# PCB terminal block - MKDS 1,5/21-5,08 - 1747973

## Accessories

### Pitch spacer

Pitch spacer - RZ 1,25-MKDS 1,5 - 1702048



Pitch spacer, for adjusting the pitches between MKDS and GMKDS terminal blocks in mixed rows, 1.25 mm thick

### 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

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