# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

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PCB terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, product range: MKDSP 10HV, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 5 mm, type of packaging: packed in cardboard. 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
- Quick and convenient testing using integrated test option
- The latching on the side enables various numbers of positions to be combined
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve




## Key Commercial Data

| | |
|---|---|
| Packing unit | 1 pc |
| Minimum order quantity | 50 pc |
| GTIN | 4 017918 819637 |
| GTIN | 4017918819637 |
| Weight per Piece (excluding packing) | 17.110 g |
| Custom tariff number | 85369010 |
| Country of origin | Poland |

## Technical data

### Item properties

| | |
|---|---|
| Brief article description | PCB terminal block |
| Range of articles | MKDSP 10HV |
| Pitch | 10.16 mm |

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## Technical data

### Item properties

| | |
|---|---|
| Number of positions | 2 |
| Drive form screw head | Slotted (L) |
| Screw thread | M4 |
| Mounting type | Wave soldering |
| Pin layout | Linear double pinning |
| Number of levels | 1 |
| Number of connections | 2 |
| Number of potentials | 2 |

### Electrical parameters

| | |
|---|---|
| Nominal current | 76 A |
| Nom. voltage | 1000 V |
| Rated voltage (III/3) | 690 V |
| Rated voltage (III/2) | 1000 V |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated surge voltage (III/2) | 8 kV |
| Rated surge voltage (II/2) | 6 kV |

### Connection capacity

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| pluggable | Yes |
| Conductor cross section solid | 0.5 mm² ... 16 mm² |
| Conductor cross section flexible | 0.5 mm² ... 16 mm² |
| Conductor cross section AWG / kcmil | 20 ... 6 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.5 mm² ... 16 mm² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.5 mm² ... 16 mm² |
| 2 conductors with same cross section, solid | 0.5 mm² ... 4 mm² |
| 2 conductors with same cross section, flexible | 0.5 mm² ... 4 mm² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.5 mm² ... 2.5 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² ... 6 mm² |
| Stripping length | 10 mm |
| Torque | 1.2 Nm ... 1.5 Nm |

### Material data - contact

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

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Technical data

### Material data - contact

| | |
|---|---|
| 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 | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [ l ] | 22 mm |
| Width [ w ] | 20.32 mm |
| Height [ h ] | 35.8 mm |
| Pitch | 10.16 mm |
| Height (without solder pin) | 30.8 mm |
| Solder pin [P] | 5 mm |
| Pin spacing | 10.16 mm |
| Pin dimensions | 1 x 0.9 mm |

### Dimensions for PCB design

| | |
|---|---|
| Hole diameter | 1.5 mm |
| Pin spacing | 10.16 mm |

### Packaging information

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

### Processing notes

| | |
|---|---|
| Process | Wave soldering |
| Specification | Following IEC 61760-1:2006-04 |

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Technical data

### Processing notes

| | |
|---|---|
| | Following IEC 60068-2-54:2006-04 |

### 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 |
| Conductor cross section / conductor type / tensile force | 0.5 mm² / solid / > 30 N |
| | 0.5 mm² / flexible / > 30 N |
| | 16 mm² / solid / > 100 N |
| | 10 mm² / flexible / > 90 N |

### Mechanical tests according to standard

| | |
|---|---|
| Test specification | IEC 60998-2-1 (in parts) |

### Electrical tests

| | |
|---|---|
| Rated current | 76 A |
| Conductor cross section | 16 mm² |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |

### Air clearances and creepage distances

| | |
|---|---|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 8 mm |
| Minimum clearance - inhomogeneous field (III/2) | 8 mm |
| Minimum clearance - inhomogeneous field (II/2) | 5.5 mm |
| Minimum creepage distance value (III/3) | 8 mm |
| Minimum creepage distance value (III/2) | 5 mm |
| Minimum creepage distance value (II/2) | 5 mm |

### Temperature-rise test

| | |
|---|---|
| Specification | IEC 60998-2-1:1990-04 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

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## Technical data

### Vibration test

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

### Insulation resistance

| | |
|---|---|
| Specification | IEC 60998-2-1:1990-04 |
| Result | Test passed |
| Insulation resistance, neighboring positions | $10^9$ Ω |

### Glow-wire test

| | |
|---|---|
| Specification | IEC 60998-2-1:1990-04 |
| Temperature | 850 °C |
| Time of exposure | 5 s |

### Mechanical strength/tumbling barrel test

| | |
|---|---|
| Specification | IEC 60998-2-1:1990-04 |
| Number of drop cycles | 50 |

### Standards and Regulations

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

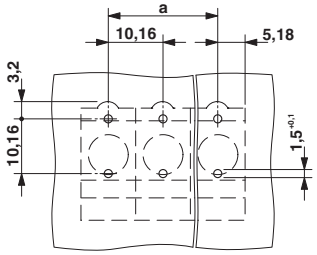
### Environmental Product Compliance

| | |
|---|---|
| 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” |

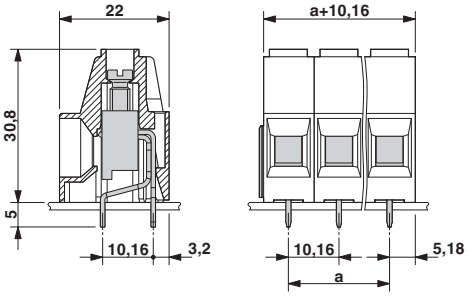
## Drawings

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

Drilling diagram




Dimensional drawing




## Classifications

### eCl@ss

| | |
|---|---|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 11.0 | 27460101 |
| 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 |

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Approvals

### Approvals

Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals

### Approval details

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

| | |
|---|---|
| Nominal voltage UN | 690 V |
| Nominal current IN | 57 A |
| mm²/AWG/kcmil | 16 |

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

| | |
|---|---|
| Nominal voltage UN | 690 V |
| Nominal current IN | 57 A |
| mm²/AWG/kcmil | 16 |

EAC — B.01687

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

| | B | C | D |
|---|---|---|---|
| Nominal voltage UN | 300 V | 300 V | 600 V |
| Nominal current IN | 60 A | 60 A | 5 A |
| mm²/AWG/kcmil | 20-6 | 20-6 | 20-6 |

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Accessories

### Accessories

### Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

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Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm²

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### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



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Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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## Accessories

Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Pitch spacer

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Accessories

Pitch spacer - RZ-MKDSP 10 HV-2,54 - 1929672



Pitch spacer, raises the pitch by 2.54 mm, interlocks with terminal block, color: green

### 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 strip - SK 5,0 WH:REEL - 0805221



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5#mm, Number of individual labels: 90000

### Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, color: gray

# PCB terminal block - MKDSP 10HV/ 2-10,16 - 1929517

## Accessories

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

## Additional products

PCB terminal block - MKDSP 10HV/ 3-10,16 - 1929520



PCB terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², Number of potentials: 3, Number of rows: 1, Number of positions per row: 3, product range: MKDSP 10HV, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 5 mm, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

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