

PCB terminal block - MKDSP 10N/ 2-10,16



1773976

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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 10N, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, 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

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Commercial Data

| | |
|--------------------------------------|---------------------|
| Order Key | 1773976 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales Key | AAB |
| Catalog Page | Page 451 (C-1-2013) |
| GTIN | 4046356481427 |
| Weight per Piece (including packing) | 15.2 GRM |
| Weight per Piece (excluding packing) | 15.2 GRM |
| Customs tariff number | 85369010 |
| Country of origin | PL |

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Technical Data

Product properties

| | |
|-----------------------|----------------------------------|
| Type | PC terminal block can be aligned |
| Number of positions | 2 |
| Number of connections | 2 |
| Number of rows | 1 |
| Number of potentials | 2 |
| Pin layout | Linear double pinning |

Electrical properties

| | |
|-----------------------------|--------|
| Maximum load current | 76 A |
| Rated voltage (II/2) | 1000 V |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |
| Rated surge voltage (III/2) | 8 kV |
| Rated surge voltage (III/3) | 8 kV |
| Nominal voltage U_N | 690 V |
| Nominal current I_N | 76 A |
| Nominal current I_N | 76 A |

Mounting

| | |
|-----------------------|-------------|
| Drive form screw head | Slotted (L) |
|-----------------------|-------------|

Processing notes

| | |
|---------|----------------|
| Process | Wave soldering |
|---------|----------------|

Material specifications

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 (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 |

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

Connection data

Connection technology

| | |
|-----------------------|----------------------------------|
| Type | PC terminal block can be aligned |
| Nominal cross section | 16 mm ² |

Conductor connection

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

Dimensions

| | |
|--------------------------|------------|
| Dimensional drawing | |
| Width | 20.32 mm |
| Height | 34.3 mm |
| Installed height | 29.3 mm |
| Length of the solder pin | 5 mm |
| Length | 18.4 mm |
| Length of the solder pin | 5 mm |
| Pin dimensions | 1 x 0.9 mm |
| Hole diameter | 1.5 mm |

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| | |
|-------|----------|
| Pitch | 10.16 mm |
|-------|----------|

Mechanical tests

Test for conductor damage and slackening

| | |
|---------------|-----------------------|
| Specification | IEC 60998-2-1:2002-12 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60998-2-1:2002-12 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.5 mm ² / solid / > 20 N |
| | 0.5 mm ² / flexible / > 20 N |
| | 16 mm ² / solid / > 100 N |
| | 16 mm ² / flexible / > 100 N |

Torque test

| | |
|---------------|-----------------------|
| Specification | IEC 60998-2-1:2002-12 |
|---------------|-----------------------|

Electrical tests

Electrical properties

| | |
|-----------------------------|--------|
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Pollution degree | 2 |

Temperature-rise test

| | |
|-----------------------------------|--------------------------------|
| Specification | IEC 60998-1:2002-12 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112:2003-01) | CTI 600 |
| Rated insulation voltage (III/3) | 690 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 8 mm |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 5 mm |
| Rated insulation voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5 mm |

Environmental and real-life conditions

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Vibration test

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

Glow-wire test

| | |
|------------------|---------------------|
| Specification | IEC 60998-1:2002-12 |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

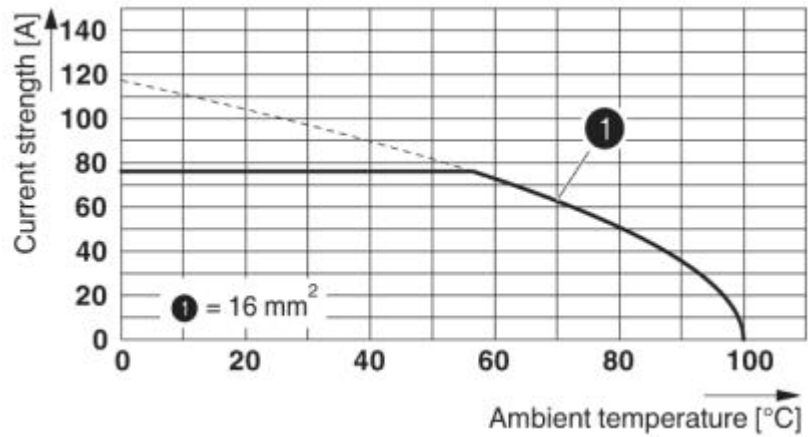
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Drawings

Diagram



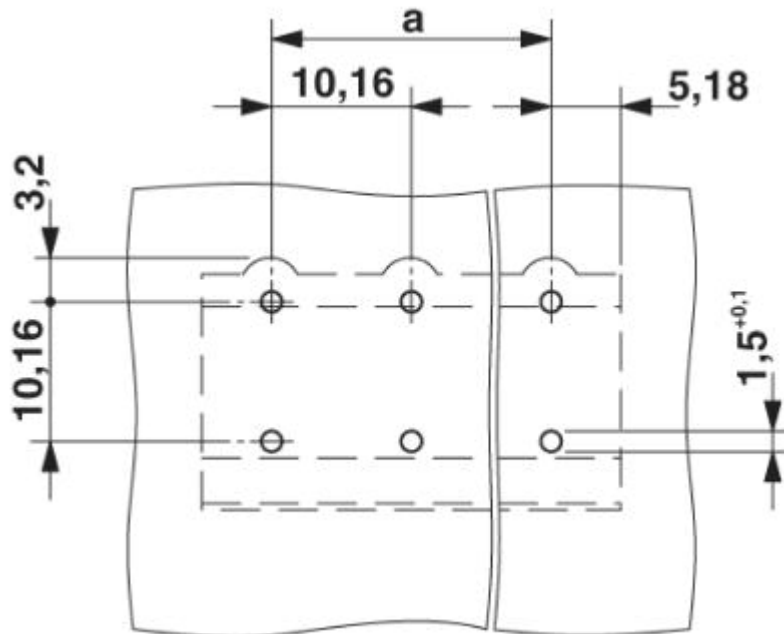
Type: MKDSP 10N/...-10,16

Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5

Drilling plan/solder pad geometry



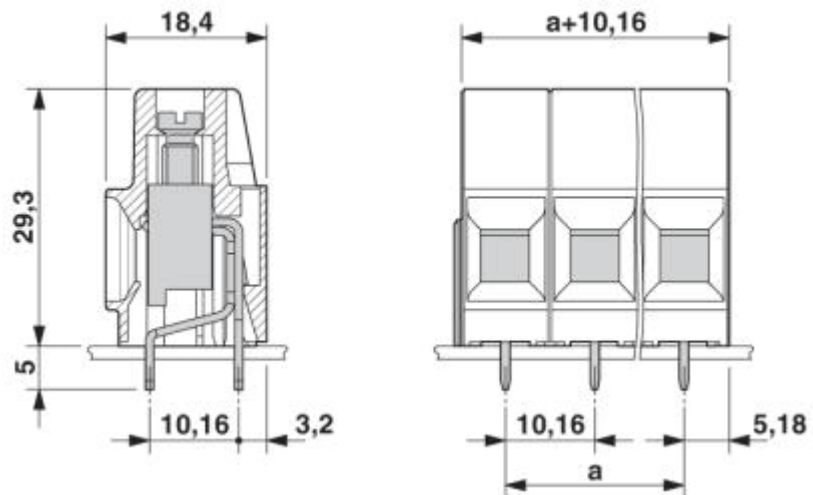
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Dimensional drawing




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Approvals

| IECEE CB Scheme  | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | 1000 V | 76 A | - | 0.5 - 16 |

| EAC  |
|--|
|--|

| cULus Recognized  | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|---|-----------------------|-----------------------|-------------------|----------------------|
| Use group B | 300 V | 60 A | 20 - 6 | - |
| Use group C | 300 V | 60 A | 20 - 6 | - |
| Use group D | 600 V | 5 A | 20 - 6 | - |

| VDE Gutachten mit Fertigungsüberwachung  | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | 1000 V | 76 A | - | 0.5 - 16 |

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440401 |
| ECLASS-10.0.1 | 27440401 |
| ECLASS-11.0 | 27460101 |

ETIM

| | |
|----------|----------|
| ETIM 6.0 | EC002643 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

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Environmental Product Compliance

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

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Accessories

Screwdriver

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

Reducing plug

Reducing plug - RPS - 0201647



Reducing plug, color: gray

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Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve

Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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Insulating sleeve

Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve

Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



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Insulating sleeve

Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve

Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



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Insulating sleeve

Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Test plugs

Test plugs - MPS-MT - 0201744

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



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Crimping pliers

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

Crimping pliers

Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm²

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