

Printed circuit board terminal - SPT 16/ 8-V-10,0-ZB BK - 1715790

<https://www.phoenixcontact.com/in/products/1715790>

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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: 8, Number of rows: 1, Number of positions per row: 8, product range: SPT 16/..-V, pitch: 10 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Zigzag pinning W, Solder pin [P]: 4.1 mm, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- Vertical connection enables multi-row arrangement on the PCB

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Commercial Data

| | |
|--------------------------------------|--------------------------------|
| Order Key | 1715790 |
| Packing unit | 50 pc |
| Minimum order quantity | 1 pc |
| Note | Made to Order (non-returnable) |
| GTIN | 4055626428277 |
| Weight per Piece (including packing) | 61.7 GRM |
| Weight per Piece (excluding packing) | 61.7 GRM |
| Customs tariff number | 85369010 |

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Technical Data

Mounting

| | |
|---------------|--|
| Mounting type | |
|---------------|--|

Electrical tests

Electrical properties

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

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) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 12.5 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) | 8 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) | 5.5 mm |

Temperature-rise test

| | |
|-----------------------------------|-------------------------------------|
| Specification | IEC 60998-2-1:2002-12 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Electrical properties

| | |
|-----------------------|--------|
| Rated voltage (III/2) | 1000 V |
| Nominal current I_N | 76 A |
| Nominal current I_N | 76 A |

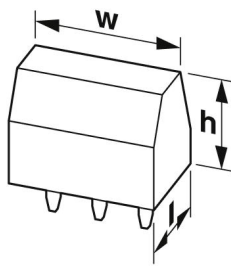
Packaging specifications

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

Dimensions

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| Dimensional drawing | |
|--------------------------|--|
| |  |
| Width | 81.8 mm |
| Height | 35.4 mm |
| Installed height | 31.3 mm |
| Length of the solder pin | 4.1 mm |
| Length | 24.7 mm |
| Length of the solder pin | 4.1 mm |
| Pin dimensions | 1.2 x 1 mm |
| Hole diameter | 1.7 mm |
| Pitch | 10 mm |

PCB design

| | |
|-------------|-------|
| Pin spacing | 15 mm |
|-------------|-------|

Environmental and durability tests

Glow-wire test

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

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) |
| Sweep speed | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

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 |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Mechanical tests

Test for conductor damage and slackening

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

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| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

Pull-out test

| | |
|---|--|
| Specification | IEC 60998-2-2:2002-12 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.75 mm ² / solid / > 30 N |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.75 mm ² / flexible / > 30 N |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 16 mm ² / solid / > 100 N |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 16 mm ² / flexible / > 100 N |

Flexion test

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

Connection test

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

Notes

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| China RoHS | No hazardous substances above threshold values |

Connection data

Connection technology

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

Conductor connection

| | |
|---|---|
| Connection method | Push-in spring connection |
| Conductor cross section solid | 0.75 mm ² ... 16 mm ² |
| Conductor cross section flexible | 0.75 mm ² ... 16 mm ² |
| Conductor cross section AWG | 20 ... 4 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.75 mm ² ... 16 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.75 mm ² ... 10 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.75 mm ² ... 4 mm ² |
| Stripping length | 18 mm |

Material specifications

Material data - housing

| | |
|---------------|--------------|
| Housing color | black (9005) |
|---------------|--------------|

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

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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn) |
| Metal surface soldering area (top layer) | Tin (10 - 16 µm Sn) |

Product properties

| | |
|-----------------------|------------------|
| Number of positions | 8 |
| Number of connections | 8 |
| Number of levels | 1 |
| Number of potentials | 8 |
| Pin layout | Zigzag pinning W |

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Approvals

EAC

SEV

| | |
|-----------------------|----------------------|
| Nominal voltage U_N | 1000 V |
| Nominal current I_N | 76 A |
| AWG/kcmil | |
| Min. cross section | 0.75 mm ² |
| Max. cross section | 16 mm ² |

cULus Recognized

| Usegroup | B | C |
|-----------------------|--------------------|--------------------|
| Nominal voltage U_N | 600 V | 600 V |
| Nominal current I_N | 66 A | 66 A |
| AWG/kcmil | 20 mm ² | 20 mm ² |
| Min. cross section | 4 mm ² | 4 mm ² |
| Max. cross section | | |

IECEE CB Scheme

| | |
|-----------------------|----------------------|
| Nominal voltage U_N | 1000 V |
| Nominal current I_N | 76 A |
| AWG/kcmil | |
| Min. cross section | 0.75 mm ² |
| Max. cross section | 16 mm ² |

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