# PCB terminal block - LPT 6/ 4-7,5-ZB

1098169

https://www.phoenixcontact.com/gb/products/1098169

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PCB terminal block, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 $mm^2$, number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: LPT 6/, pitch: 7.5 mm, connection method: Lever Push-in connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 3.6 mm, type of packaging: packed in cardboard

## Your advantages

- Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- Clear lever positions provide reliable feedback on opened or closed clamping spaces
- Defined contact force ensures that contact remains stable over the long term
- Time-saving push-in connection when lever is closed
- Intuitive operation, thanks to a color-coded actuation lever

## Commercial Data

| | |
|---|---|
| Item number | 1098169 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales Key | AANTBA |
| Product Key | AANTBA |
| GTIN | 4055626941714 |
| Weight per Piece (including packing) | 19.61 g |
| Weight per Piece (excluding packing) | 19 g |
| Country of origin | PL |

# Technical Data

## Product properties

| | |
|---|---|
| Product line | COMBICON Terminals L |
| Product type | Printed circuit board terminal |
| Number of positions | 4 |
| Pitch | 7.5 mm |
| Number of connections | 4 |
| Number of rows | 1 |
| Number of potentials | 4 |
| Pin layout | Zigzag pinning W |

## Electrical properties

| | |
|---|---|
| Nominal current $I_N$ | 41 A |
| Nominal voltage $U_N$ | 1000 V |
| Degree of pollution | 3 |
| Rated voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |

## Connection data

### Connection technology

| | |
|---|---|
| Nominal cross section | 6 mm² |

### Conductor connection

| | |
|---|---|
| Conductor cross section solid | 0.2 mm² ... 10 mm² (Conductor connection with open terminal point) |
| | 0.5 mm² ... 10 mm² (Push-in connection) |
| Conductor cross section flexible | 0.34 mm² ... 10 mm² |
| Conductor cross section AWG | 22 ... 8 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.2 mm² ... 6 mm² (Conductor connection with open terminal point) |
| | 1.5 mm² ... 6 mm² (Push-in connection) |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.2 mm² ... 6 mm² (Conductor connection with open terminal point) |
| | 0.5 mm² ... 6 mm² (Push-in connection) |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² ... 2.5 mm² |
| Stripping length | 12 mm ... 14 mm |

## Mounting

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Zigzag pinning W |

## 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 (10 - 16 µm Sn) |
| Metal surface soldering area (top layer) | Tin (10 - 16 µm Sn) |

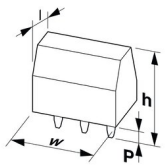
Material data - housing

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

Material data – actuating element

| | |
|---|---|
| Color of the actuating lever | orange (2003) |
| Insulating material | PA GF |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |

## Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Pitch | 7.5 mm |
| Width [w] | 31 mm |
| Height [h] | 27.85 mm |
| Length [l] | 24.3 mm |
| Installed height | 24.25 mm |
| Solder pin length [P] | 3.6 mm |

## Mechanical tests

Test for conductor damage and slackening

| | |
|---|---|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60999-1:1999-11 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.2 mm² / solid / > 10 N |
| | 0.34 mm² / flexible / > 15 N |
| | 10 mm² / solid / > 90 N |
| | 10 mm² / flexible / > 90 N |

## Electrical tests

Temperature-rise test

| | |
|---|---|
| Specification | IEC 60947-7-4:2019-01 |
| Requirement temperature-rise test | The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature. |

Short-time withstand current

| | |
|---|---|
| Specification | IEC 60947-7-4:2019-01 |

Insulation resistance

| | |
|---|---|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Air clearances and creepage distances |

| | |
|---|---|
| Specification | IEC 60947-7-4:2019-01 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | 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 |

## Environmental and real-life conditions

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 | 50 m/s² (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Glow-wire test

| | |
|---|---|
| Specification | IEC 60695-2-10:2013-04 |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Aging

| | |
|---|---|
| Specification | IEC 60947-7-4:2019-01 |

Ambient conditions

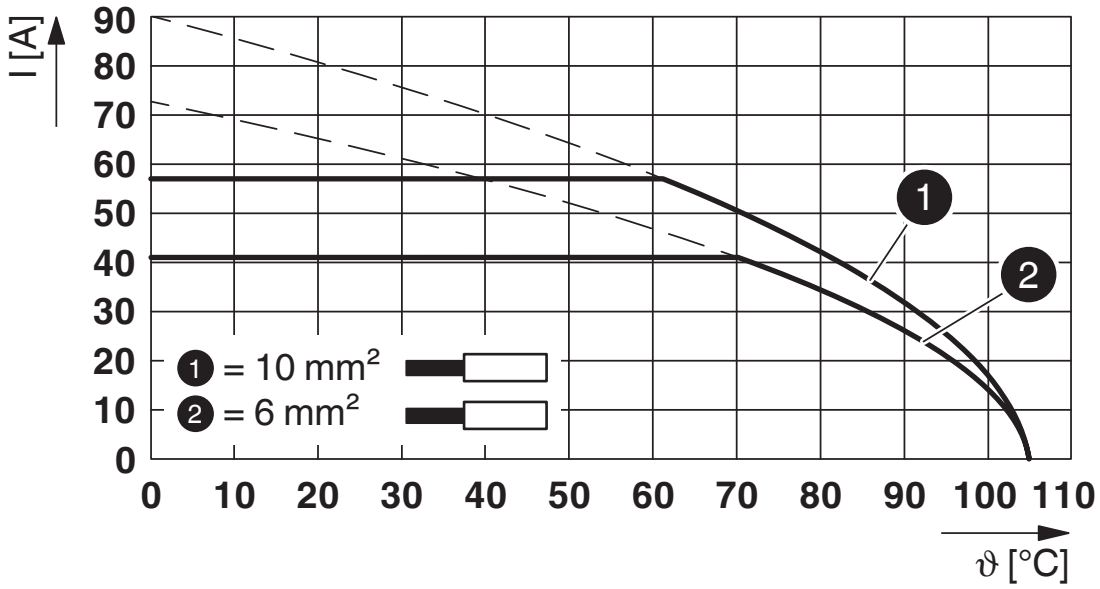
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 105 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

## Packaging specifications

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

## Drawings

Diagram




Type: LPT 6/...-7,5-ZB

## Approvals

**UL Recognized**
Approval ID: E60425-20210507

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| Use group F | | | | |
| | 1000 V | 40 A | 22 - 8 | - |

**cULus Recognized**
Approval ID: E60425-20210507

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| Use group B | | | | |
| | 600 V | 40 A | 22 - 8 | - |
| Use group C | | | | |
| | 600 V | 40 A | 22 - 8 | - |

**VDE Zeichengenehmigung**
Approval ID: 40054188

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | 1000 V | 41 A | - | 0.2 - 6 |

**IECEE CB Scheme**
Approval ID: DE1-66350

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | | 41 A | - | 0.2 - 6 |

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 8.0 | EC002643 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental Product Compliance

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

## Accessories

### Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

https://www.phoenixcontact.com/gb/products/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 $mm^2$ ... 6.0 $mm^2$, lateral entry, trapezoidal crimp

### Crimping pliers

Crimping pliers - CRIMPFOX CENTRUS 6H - 1213146

https://www.phoenixcontact.com/gb/products/1213146



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 $mm^2$ ... 6 $mm^2$, also for TWIN ferrules up to 2 x 4 $mm^2$, automatic cross section adjustment, lateral insertion, equipped with fall protection

## Test plugs

Test plugs - MPS-MT - 0201744

https://www.phoenixcontact.com/gb/products/0201744



Test plugs, with solder connection up to 1 $mm^2$ conductor cross section, color: gray


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