# KDS 3-SI - PCB terminal block

1780112

https://www.phoenixcontact.com/us/products/1780112

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.






PCB terminal block, nominal current: 6.3 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm$^2$, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: KDS 3-SI, 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 pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions! The current is determined by the fuse used.

## 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
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined

## Commercial data

| | |
|---|---|
| Item number | 1780112 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | AA13 |
| Product key | AAMFFD |
| GTIN | 4017918040734 |
| Weight per piece (including packing) | 11.94 g |
| Weight per piece (excluding packing) | 11.877 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

## Technical data

### Product properties

| | |
|---|---|
| Product type | PCB terminal block |
| Product family | KDS 3-SI |
| Product line | COMBICON Terminals M |
| Type | PCB terminal block can be aligned in rows + fuse terminal block |
| Number of positions | 1 |
| Pitch | 10.16 mm |
| Number of connections | 1 |
| Number of rows | 1 |
| Number of potentials | 1 |
| Pin layout | Linear pinning |
| Solder pins per potential | 2 |

Fitting of components

| | |
|---|---|
| Partial assembly | No |

### Electrical properties

Properties

| | |
|---|---|
| Nominal current $I_N$ | 6.3 A |
| Nominal voltage $U_N$ | 320 V |
| Rated voltage (III/3) | 320 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

### Connection data

Connection technology

| | |
|---|---|
| Type | PCB terminal block can be aligned in rows + fuse terminal block |
| Nominal cross section | 2.5 mm² |

Conductor connection

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Conductor cross-section rigid | 0.2 mm² ... 4 mm² |
| Conductor cross-section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross-section AWG | 24 ... 12 |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.25 mm² ... 1.5 mm² |
| 2 conductors with same cross section, rigid | 0.2 mm² ... 1 mm² |
| 2 conductors with same cross section, flexible | 0.2 mm² ... 1 mm² |

| | |
|---|---|
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm² ... 0.75 mm² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² ... 1 mm² |
| Stripping length | 8 mm |
| Drive form screw head | Slotted (L) |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

## Mounting

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

## Material specifications

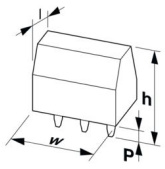
Material data - contact

| | |
|---|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Cu alloy |
| Metal surface terminal point (top layer) | Tin (5 µm - 7 µm Sn) |
| Metal surface soldering area (top layer) | Tin (5 µm - 7 µm Sn) |

Material data - housing

| | |
|---|---|
| Color (Housing) | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V2 |

## Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Pitch | 5.08 mm |
| Width [w] | 10.16 mm |
| Height [h] | 40.5 mm |
| Length [l] | 27 mm |
| Installed height | 37 mm |
| Solder pin length [P] | 3.5 mm |
| Pin dimensions | 1.1 x 0.8 mm |

PCB design

| | |
|---|---|
| Hole diameter | 1.4 mm |

## Electrical tests

Air clearances and creepage distances |

| | |
|---|---|
| Insulating material group | I |
| Rated insulation voltage (III/3) | 320 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated insulation voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated insulation voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

## Environmental and real-life conditions

Ambient conditions

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

## Packaging specifications

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

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1780112

**CSA**
Approval ID: 13631

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 300 V | 10 A | 24 - 12 | - |

**UL Recognized**
Approval ID: FILE E 60425

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 250 V | 15 A | 28 - 12 | - |
| D | | | | |
| | 300 V | 10 A | 28 - 12 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 27460101 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002643 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | c52a2d35-ca8f-456f-a351-b8fcf2dec3e6 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.065 kg CO2e |


Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com



Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com