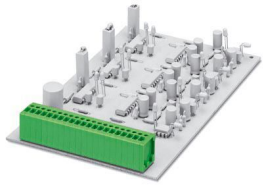
# FRONT 1,5-V-3,81-23 BD:0-22Q - PCB terminal block

1906187

https://www.phoenixcontact.com/us/products/1906187

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: 17.5 A, rated voltage (III/2): 320 V, nominal cross section: 1.5 mm$^2$, number of potentials: 23, number of rows: 1, number of positions per row: 23, product range: FRONT 1,5-V, pitch: 3.81 mm, connection method: Front screw connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, Pin layout: Linear double 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!

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Operation and conductor connection from one direction enable integration into front of device
- 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 | 1906187 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Product key | AALFBA |
| GTIN | 4017918468743 |
| Weight per piece (including packing) | 36.07 g |
| Weight per piece (excluding packing) | 36.07 g |
| Country of origin | PL |

# Technical data

## Product properties

| | |
|---|---|
| Type | PC terminal block can be aligned |
| Product line | COMBICON Terminals S |
| Product type | Printed circuit board terminal |
| Product family | FRONT 1,5-V |
| Number of positions | 23 |
| Pitch | 3.81 mm |
| Number of connections | 23 |
| Number of rows | 1 |
| Number of potentials | 23 |
| Pin layout | Linear double pinning |
| Solder pins per potential | 2 |

## Electrical properties

| | |
|---|---|
| Nominal current $I_N$ | 17.5 A |
| Nominal voltage $U_N$ | 320 V |
| Degree of pollution | 3 |
| Rated voltage (III/3) | 200 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) | 500 V |
| Rated surge voltage (II/2) | 4 kV |

## Connection data

### Connection technology

| | |
|---|---|
| Type | PC terminal block can be aligned |
| Nominal cross section | 1.5 mm² |

### Conductor connection

| | |
|---|---|
| Connection method | Front screw connection |
| Conductor cross section rigid | 0.14 mm² ... 1.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross section AWG | 26 ... 16 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.5 mm² ... 1.5 mm² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm² ... 0.75 mm² |
| 2 conductors with same cross section, solid | 0.14 mm² ... 0.75 mm² |
| 2 conductors with same cross section, flexible | 0.14 mm² ... 0.75 mm² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm² ... 0.34 mm² |
| 2 conductors with the same cross section, flexible, with TWIN | 0.5 mm² ... 0.5 mm² |

| | |
|---|---|
| ferrule with plastic sleeve | |
| Stripping length | 9 mm |
| Tightening torque | 0.22 Nm ... 0.25 Nm |

## Mounting

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Linear double pinning |
| Connection method | Front screw connection |

## Material specifications

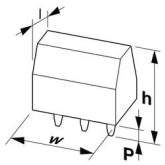
Material data - contact

| | |
|---|---|
| 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 soldering area (top layer) | Tin (5 - 7 µm Sn) |

Material data - housing

| | |
|---|---|
| Color () | () |
| 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

| | |
|---|---|
| Dimensional drawing |  |
| Pitch | 3.81 mm |
| Length [l] | 15.9 mm |
| Installed height | 16 mm |
| Solder pin length [P] | 3.5 mm |
| Pin dimensions | 0.8 x 0.8 mm |

PCB design

| | |
|---|---|
| Hole diameter | 1.2 mm |

## Electrical tests

Air clearances and creepage distances |

| | |
|---|---|
| Insulating material group | I |
| Rated insulation voltage (III/3) | 200 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) | 500 V |
| Rated surge voltage (II/2) | 4 kV |

## Environmental and real-life conditions

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 |

## Environmental product compliance

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

## Accessories

### SZS 0,4X2,5 VDE - Screwdriver

1205037

https://www.phoenixcontact.com/us/products/1205037

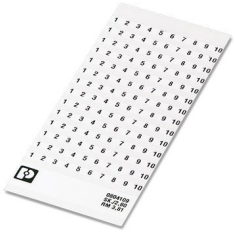


Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

### SK  3,81/2,8:FORTL.ZAHLEN - Marker card

0804109

https://www.phoenixcontact.com/us/products/0804109



Marker card, Sheet, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 3.81 mm, lettering field size: 3.81 x 2.8 mm, Number of individual labels: 14

## B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/us/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

## D-FRONT 1,5-V - End cover

1707755

https://www.phoenixcontact.com/us/products/1707755



End cover, necessary at the end of a terminal row, 2.54 mm thick, color: green


Phoenix Contact 2024 © - 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