# FFKDS/V-2,54 YE - PCB terminal block

1986783

https://www.phoenixcontact.com/us/products/1986783

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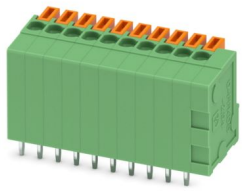


PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 $mm^2$, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: FFKDS(A) 0,5/..-V, pitch: 2.54 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, Pin layout: Linear double pinning, Solder pin [P]: 3.4 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

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive operation due to color-coded actuating push button
- 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
- Vertical connection enables multi-row arrangement on the PCB

## Commercial data

| | |
|---|---|
| Item number | 1986783 |
| Packing unit | 100 pc |
| Minimum order quantity | 100 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA11 |
| Product key | AAKBBC |
| GTIN | 4017918923310 |
| Weight per piece (including packing) | 0.563 g |
| Weight per piece (excluding packing) | 0.373 g |
| Customs tariff number | 85369010 |
| Country of origin | DE |

## Technical data

### Product properties

| | |
|---|---|
| Product type | Printed circuit board terminal |
| Product family | FFKDS(A) 0,5/..-V |
| Product line | COMBICON Terminals XS |
| Type | PC terminal block can be aligned |
| Number of positions | 1 |
| Pitch | 2.54 mm |
| Number of connections | 1 |
| Number of rows | 1 |
| Number of potentials | 1 |
| Pin layout | Linear double pinning |
| Solder pins per potential | 2 |

Data management status

| | |
|---|---|
| Article revision | 00 |

### Electrical properties

| | |
|---|---|
| Nominal current $I_N$ | 6 A |
| Nominal voltage $U_N$ | 160 V |
| Rated voltage (III/3) | 63 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |

### Connection data

Connection technology

| | |
|---|---|
| Type | PC terminal block can be aligned |
| Nominal cross section | 0.5 mm² |

Conductor connection

| | |
|---|---|
| Connection method | Push-in spring connection |
| Conductor cross section rigid | 0.14 mm² ... 0.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 0.5 mm² |
| Conductor cross section AWG | 26 ... 20 |
| Stripping length | 11 mm |

### Mounting

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Linear double 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 |
| 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) |

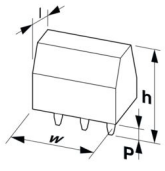
Material data - housing

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

Material data – actuating element

| | |
|---|---|
| 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 | 2.54 mm |
| Width [w] | 5.04 mm |
| Height [h] | 17 mm |
| Length [l] | 12.6 mm |

| | |
|---|---|
| Installed height | 13.6 mm |
| Solder pin length [P] | 3.4 mm |
| Pin dimensions | 0.5 x 0.8 mm |

PCB design

| | |
|---|---|
| Hole diameter | 1.1 mm |

## Mechanical tests

Test for conductor damage and slackening

| | |
|---|---|
| Specification | IEC 60999-1:1990-05 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60999-1:1990-05 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.14 mm² / solid / > 7 N |
| | 0.14 mm² / flexible / > 7 N |
| | 0.5 mm² / solid / > 30 N |
| | 0.5 mm² / flexible / > 30 N |

## Electrical tests

Temperature-rise test

| | |
|---|---|
| Specification | IEC 60998-1:1990-04 |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Insulation resistance

| | |
|---|---|
| Specification | IEC 60512-2:1985-00 |
| Insulation resistance, neighboring positions | $10^{12}$ Ω |

Air clearances and creepage distances |

| | |
|---|---|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 63 V |
| Rated surge voltage (III/3) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/3) | 1.5 mm |
| minimum creepage distance (III/3) | 1.6 mm |
| Rated insulation voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/2) | 1.5 mm |
| minimum creepage distance (III/2) | 1.5 mm |
| Rated insulation voltage (II/2) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (II/2) | 1.5 mm |
| minimum creepage distance (II/2) | 1.6 mm |

## Environmental and real-life conditions

Vibration test

| | |
|---|---|
| Specification | IEC 60068-2-6:1982 + AMD 2:1985 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Ambient conditions

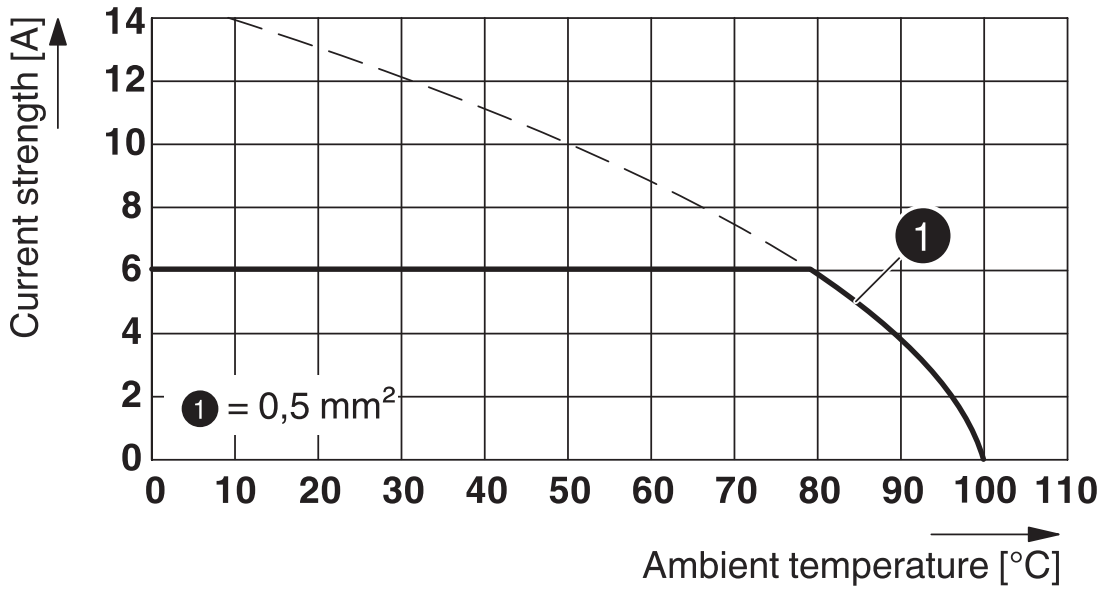
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100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

## Packaging specifications

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

## Drawings

Diagram




## Type: FFKDS/V-2,54

Tested according to DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 5

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27460101 |
| ECLASS-13.0 | 27460101 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121432 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |

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