

https://www.phoenixcontact.com/pc/products/1910704



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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FKIC 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Time saving push-in connection, tools not required
- · Intuitive operation due to color-coded actuating push button
- · Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- · Can be combined with the MSTB 2,5 range

Commercial data

| Item number | 1910704 |
|--------------------------------------|---------------------|
| Packing unit | 100 pc |
| Minimum order quantity | 1 pc |
| Product key | AACFJA |
| Catalog page | Page 286 (C-1-2013) |
| GTIN | 4017918175481 |
| Weight per piece (including packing) | 8.205 g |
| Weight per piece (excluding packing) | 8.195 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |



https://www.phoenixcontact.com/pc/products/1910704



Technical data

Product properties

| Product type | PCB connector |
|-----------------------|-----------------------|
| Product family | FKIC 2,5/ST |
| Product line | COMBICON Connectors M |
| Туре | Inverted |
| Number of positions | 5 |
| Pitch | 5 mm |
| Number of connections | 5 |
| Number of rows | 1 |
| Number of potentials | 5 |
| Mounting flange | without |

Electrical properties

| Nominal current I _N | 12 A |
|--------------------------------|--------|
| Nominal voltage U _N | 320 V |
| Degree of pollution | 3 |
| Contact resistance | 1.8 mΩ |
| 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

| Туре | Inverted |
|-------------------------|-------------------|
| Connector system | COMBICON MSTB 2,5 |
| Nominal cross section | 2.5 mm² |
| Contact connection type | Pin |

Interlock

| Locking type | without |
|-----------------|---------|
| Mounting flange | without |

Conductor connection

| Connection method | Push-in spring connection |
|--|---------------------------|
| Conductor/PCB connection direction | 0 ° |
| Conductor cross section rigid | 0.2 mm² 2.5 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 | 0.25 mm² 2.5 mm² |



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| sleeve | |
|---|--|
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² 2.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm² 1.5 mm² |
| Cylindrical gauge a x b / diameter | 2.8 mm x 2.0 mm / 2.0 mm |
| Stripping length | 10 mm |
| Specifications for ferrules without insulating collar | |
| recommended crimping tool | 1212034 CRIMPFOX 6 |

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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (5 - 7 μm Sn) |
| Metal surface contact area (top layer) | Tin (5 - 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 | 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 (Actuating element) | orange (2003) |
|--|---------------|
| Insulating material | PBT |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |

Dimensions

| Dimensional drawing | h |
|---------------------|------|
| Pitch | 5 mm |



1910704

https://www.phoenixcontact.com/pc/products/1910704

| Width [w] | 27 mm |
|---|--|
| Height [h] | 15 mm |
| Length [I] | 27 mm |
| Notes | |
| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load. |
| 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 | 0.2 mm² / solid / > 10 N |
| setpoint/actual value | 0.2 mm² / flexible / > 10 N |
| | 2.5 mm² / solid / > 50 N |
| | 2.5 mm² / flexible / > 50 N |
| Insertion and withdrawal forces | |
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Torque test | |
| Specification | IEC 60999-1:1999-11 |
| Resistance of inscriptions | |
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |
| | |
| Polarization and coding | |
| Specification | IEC 60512-13-5:2006-02 |
| Result | Test passed |
| Visual inspection | |
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |
| Dimension check | |
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |
| | |

Environmental and real-life conditions



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| V١ | brati | nΩ | test |
|----|-------|----|------|
| | | | |

| Specification | IEC 60068-2-6:2007-12 |
|------------------------|-------------------------|
| 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 |

Durability test

| • | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 4.8 kV |
| Contact resistance R ₁ | 1.8 mΩ |
| Contact resistance R ₂ | 1.9 mΩ |
| Insertion/withdrawal cycles | 25 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Climatic test

| Specification | ISO 6988:1985-02 |
|-----------------------------------|--|
| Corrosive stress | $0.2~\mathrm{dm^3SO_2}$ on 300 dm³/40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 2.21 kV |

Ambient conditions

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

Electrical tests

Thermal test | Test group C

Specification

| Tested number of positions | 18 |
|--|-----------------------|
| Insulation resistance | |
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

IEC 60512-5-1:2002-02

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) | 320 V |
| Rated surge voltage (III/3) | 4 kV |
| minimum clearance value - non-homogenous field (III/3) | 3 mm |
| minimum creepage distance (III/3) | 4 mm |



1910704

https://www.phoenixcontact.com/pc/products/1910704

| Rated insulation voltage (III/2) | 320 V |
|--|--------|
| Rated surge voltage (III/2) | 4 kV |
| minimum clearance value - non-homogenous field (III/2) | 3 mm |
| minimum creepage distance (III/2) | 3 mm |
| Rated insulation voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| minimum clearance value - non-homogenous field (II/2) | 3 mm |
| minimum creepage distance (II/2) | 3.2 mm |

Packaging specifications

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

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