

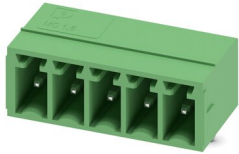
MC 1,5/ 5-G-3,5 - PCB header



1844249

<https://www.phoenixcontact.com/in/products/1844249>

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PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MC 1,5/..-G, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Well-known mounting principle allows worldwide use
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

Commercial Data

| | |
|--------------------------------------|---------------------|
| Item number | 1844249 |
| Packing unit | 250 pc |
| Minimum order quantity | 250 pc |
| Sales Key | AAB |
| Product Key | AABSAA |
| Catalog Page | Page 224 (C-1-2013) |
| GTIN | 4017918113285 |
| Weight per Piece (including packing) | 1.33 g |
| Weight per Piece (excluding packing) | 1.195 g |
| Customs tariff number | 85366930 |
| Country of origin | IN |

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Technical Data

Product properties

| | |
|---------------------------|-----------------------|
| Type | Standard |
| Product line | COMBICON Connectors S |
| Product type | PCB headers |
| Product family | MC 1,5/...-G |
| Number of positions | 5 |
| Pitch | 3.5 mm |
| Number of connections | 5 |
| Number of rows | 1 |
| Mounting flange | without |
| Number of potentials | 5 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

| | |
|-----------------------------|----------------|
| Nominal current I_N | 8 A |
| Nominal voltage U_N | 160 V |
| Degree of pollution | 3 |
| Contact resistance | 1.3 m Ω |
| Rated voltage (III/3) | 160 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) | 250 V |
| Rated surge voltage (II/2) | 2.5 kV |

Mounting

| | |
|-----------------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Drive form screw head | Slotted |
| Drive form screw head | Slotted |

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 contact area (top layer) | Tin (3 - 5 μm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 μm Ni) |
| Metal surface soldering area (top layer) | Tin (3 - 5 μm Sn) |

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1844249

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| | |
|---|------------------------|
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 µm Ni) |
|---|------------------------|

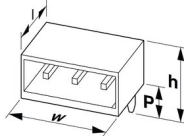
Material data - housing

| | |
|--|--------------|
| Color (Housing) | green (6021) |
| Insulating material | PBT |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 225 |
| Flammability rating according to UL 94 | V0 |

Material data – actuating element

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

Dimensions

| | |
|-----------------------|---|
| Dimensional drawing |  |
| Pitch | 3.5 mm |
| Width [w] | 18.9 mm |
| Height [h] | 10.65 mm |
| Length [l] | 9.2 mm |
| Installed height | 7.25 mm |
| Solder pin length [P] | 3.4 mm |
| Pin dimensions | 0.80.8 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 | 0.14 mm ² / solid / > 10 N |
| | 0.14 mm ² / flexible / > 10 N |
| | 1.5 mm ² / solid / > 40 N |
| | 1.5 mm ² / flexible / > 40 N |

Insertion and withdrawal forces

| | |
|-------------------------------------|-------------|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 6 N |
| Withdraw strength per pos. approx. | 4 N |

Torque test

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| | |
|---|------------------------|
| Specification | IEC 60999-1:1999-11 |
| Contact holder in insert | |
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed |
| 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 |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 20 |

Insulation resistance

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

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | IIIa |
| Comparative tracking index (IEC 60112) | CTI 225 |
| Rated insulation voltage (III/3) | 160 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) | 2.5 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) | 1.6 mm |
| Rated insulation voltage (II/2) | 250 V |
| Rated surge voltage (II/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (II/2) | 1.5 mm |

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| | |
|----------------------------------|--------|
| minimum creepage distance (II/2) | 2.5 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 Hz ... 60.1 Hz) |
| Sweep speed | 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 | 2.95 kV |
| Contact resistance R_1 | 1.3 m Ω |
| Contact resistance R_2 | 1.4 m Ω |
| Insertion/withdrawal cycles | 25 |
| Insulation resistance, neighboring positions | > 5 M Ω |

Climatic test

| | |
|-----------------------------------|---|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 1.39 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 |

Packaging specifications

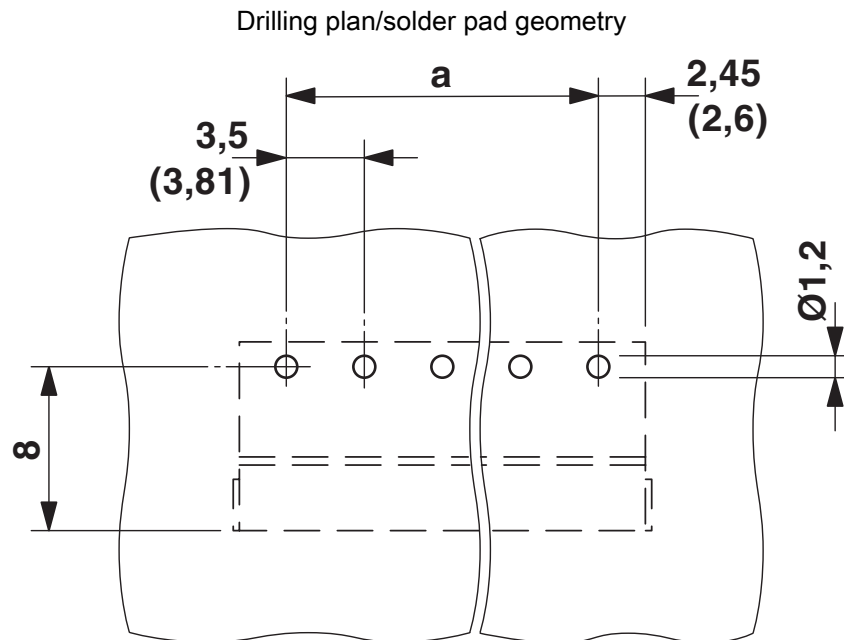
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

MC 1,5/ 5-G-3,5 - PCB header

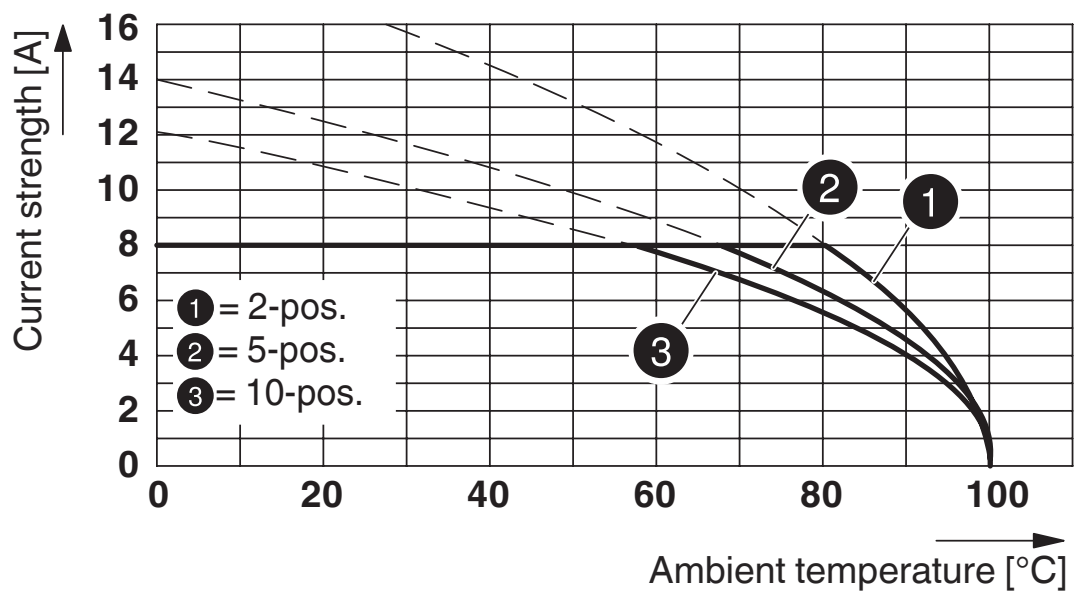
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Drawings



Diagram

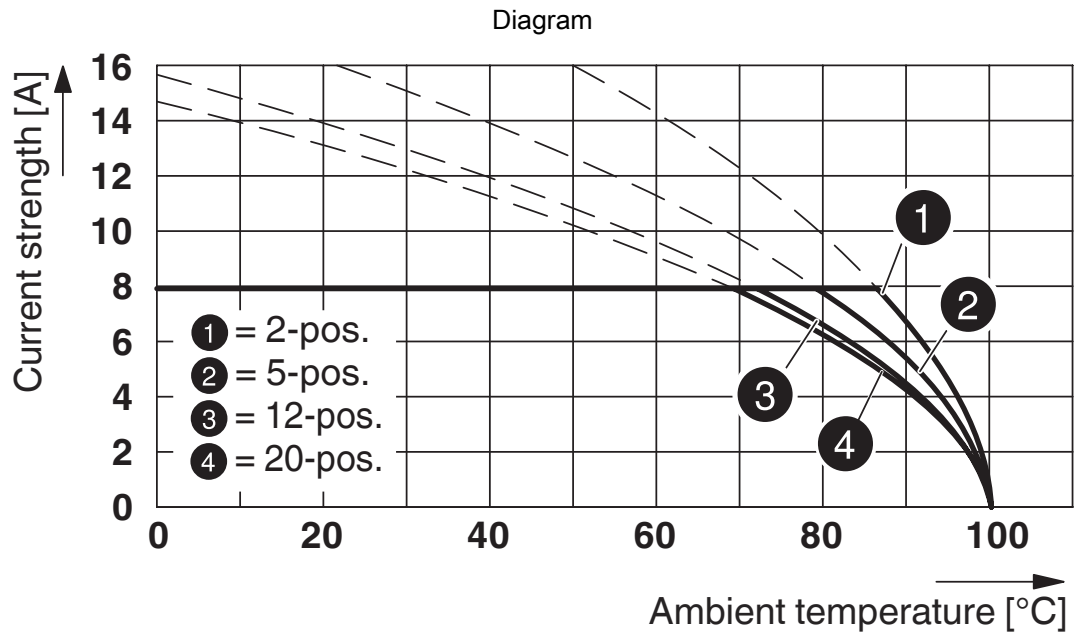


Type: TFMC 1,5/...-ST-3,5 with MC 1,5/...-G-3,5

MC 1,5/ 5-G-3,5 - PCB header

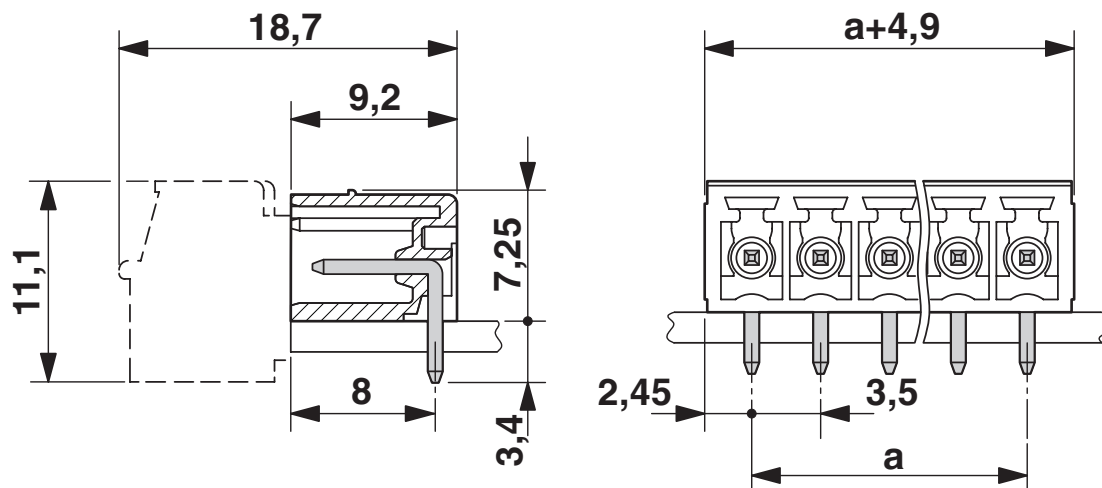
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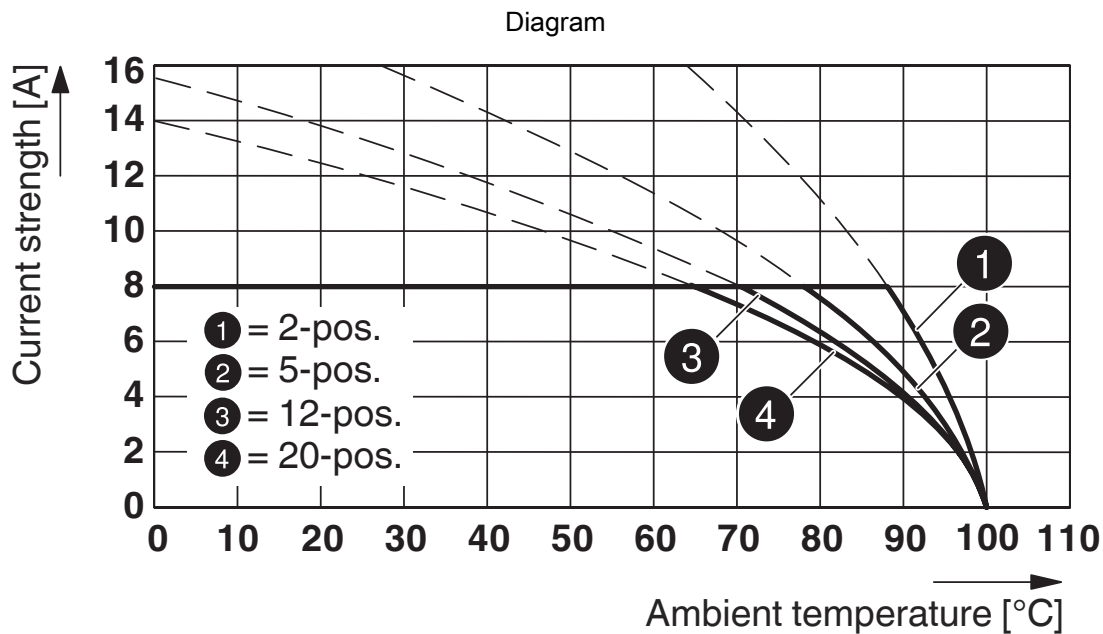
Type: MC 1,5/...-ST-3,5 with MC 1,5/...-G-3,5

Dimensional drawing

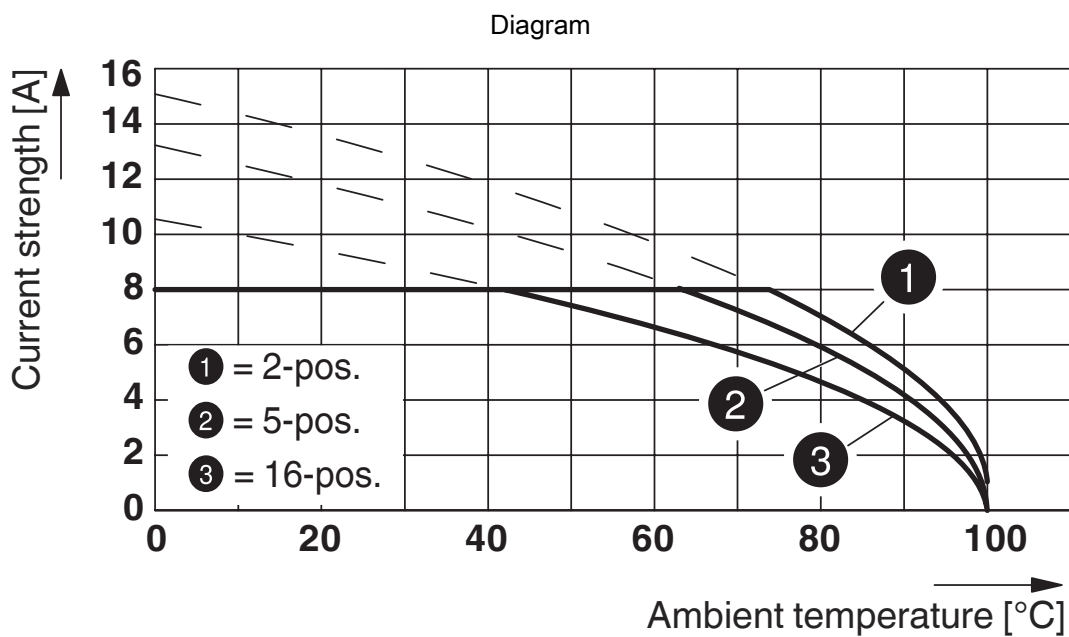


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Type: FK-MCP 1,5/...-ST-3,5 with MC 1,5/...-G-3,5



Type: MCVW 1,5/...-ST-3,5 with MC 1,5/...-G-3,5


MC 1,5/ 5-G-3,5 - PCB header



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Approvals

|  CSA Approval ID: 13631 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 300 V | 8 A | - | - |
| | 300 V | 8 A | - | - |

|  IECEE CB Scheme Approval ID: DE1-60987-B1B2 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 160 V | 8 A | - | - |

|  EAC Approval ID: B.01687 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

|  cULus Recognized Approval ID: E60425-20110128 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 300 V | 8 A | - | - |
| | 300 V | 8 A | - | - |

|  VDE Zeichengenehmigung Approval ID: 40011723 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 160 V | 8 A | - | - |

MC 1,5/ 5-G-3,5 - PCB header



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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002637 |
|----------|----------|

UNSPSC

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

MC 1,5/ 5-G-3,5 - PCB header

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Environmental Product Compliance

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

MC 1,5/ 5-G-3,5 - PCB header

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Accessories

SK 3,5/2,8:FORTL.ZAHLEN - Marker card

0804073

<https://www.phoenixcontact.com/in/products/0804073>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 3.5 mm, lettering field size: 3.5 x 2.8 mm

CP-MSTB - Coding profile

1734634

<https://www.phoenixcontact.com/in/products/1734634>



Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

MC 1,5/ 5-G-3,5 - PCB header

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MC 1,5/10-LWL 1,5-3,5 - Fiber optic

1841161

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MINI COMBICON fiber optics, 3.5 mm pitch, 10-pos., separable for other numbers of positions (minimum: 2-pos.), inserts into the back of the MC header, color: transparent, dimension a: 1.5 mm



MC 1,5/10-LWL 2,3-3,5 - Fiber optic

1841187

<https://www.phoenixcontact.com/in/products/1841187>

MINI COMBICON fiber optics, 3.5 mm pitch, 10-pos., separable for other numbers of positions (minimum: 2-pos.), inserts into the back of the MC header, color: transparent, dimension a: 2.3 mm



MC 1,5/ 5-G-3,5 - PCB header

1844249

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MC 1,5/10-LWL 4-3,5 - Fiber optic

1841200

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MINI COMBICON fiber optics, 3.5 mm pitch, 10-pos., separable for other numbers of positions (minimum: 2-pos.), inserts into the back of the MC header, color: transparent, dimension a: 4 mm



MC 1,5/ 5-ST-3,5 GY7035 - PCB connector

1769087

<https://www.phoenixcontact.com/in/products/1769087>



PCB connector, nominal cross section: 1.5 mm², color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MC 1,5/...-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MC 1,5/ 5-G-3,5 - PCB header

1844249

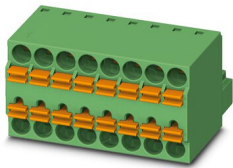
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TFMC 1,5/ 5-ST-3,5 - Printed-circuit board connector

1772647

<https://www.phoenixcontact.com/in/products/1772647>

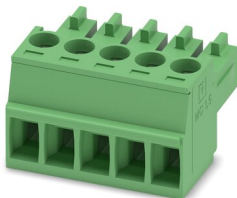


PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 10, product range: TFMC 1,5/...-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MC 1,5/ 5-ST-3,5 - PCB connector

1840395

<https://www.phoenixcontact.com/in/products/1840395>



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MC 1,5/...-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MC 1,5/ 5-G-3,5 - PCB header

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MCVW 1,5/ 5-ST-3,5 - PCB connector

1862881

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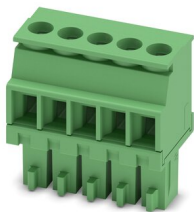


PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MCVW 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MCVR 1,5/ 5-ST-3,5 - PCB connector

1863181

<https://www.phoenixcontact.com/in/products/1863181>



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MCVR 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MC 1,5/ 5-G-3,5 - PCB header

1844249

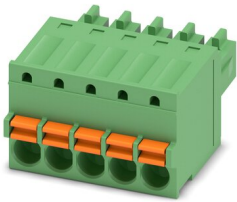
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FK-MCP 1,5/ 5-ST-3,5 - PCB connector

1939947

<https://www.phoenixcontact.com/in/products/1939947>

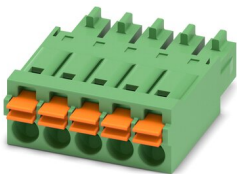


PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FK-MCP 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

FMC 1,5/ 5-ST-3,5 - Printed-circuit board connector

1952296

<https://www.phoenixcontact.com/in/products/1952296>



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FMC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MC 1,5/ 5-G-3,5 - PCB header

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XPC 1,5/ 5-ST-3,5 BK - PCB connector

1464108

<https://www.phoenixcontact.com/in/products/1464108>



PCB connector, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of rows: 1, number of positions: 5, product range: XPC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-X-connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

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