

# MC 0,5/10-G-2,5 THT - PCB header



1963502

<https://www.phoenixcontact.com/in/products/1963502>

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PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 4 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: MC 0,5/..-G-THT, pitch: 2.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 3.8 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, For user information and design recommendations for through-hole reflow technology, go to: Downloads

## Your advantages

- Designed for integration into the SMT soldering process

## Commercial Data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1963502             |
| Packing unit                         | 50 pc               |
| Minimum order quantity               | 50 pc               |
| Sales Key                            | AAA                 |
| Product Key                          | AAATGA              |
| Catalog Page                         | Page 170 (C-1-2013) |
| GTIN                                 | 4017918912321       |
| Weight per Piece (including packing) | 3.9 g               |
| Weight per Piece (excluding packing) | 3.16 g              |
| Customs tariff number                | 85366930            |
| Country of origin                    | DE                  |

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## Technical Data

### Product properties

|                           |  |
|---------------------------|--|
| Type                      | Component suitable for through hole reflow |
| Product line              | COMBICON Connectors XS                     |
| Product type              | PCB headers                                |
| Product family            | MC 0,5/...-G-THT                           |
| Number of positions       | 10   |
| Pitch                     | 2.5 mm                                     |
| Number of connections     | 10   |
| Number of rows            | 1  |
| Mounting flange           | without                                    |
| Number of potentials      | 10   |
| Pin layout                | Linear pinning                             |
| Solder pins per potential | 1  |

### Electrical properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 4 A    |
| Nominal voltage $U_N$       | 160 V  |
| Degree of pollution         | 3      |
| Contact resistance          | 2 mΩ   |
| Rated voltage (III/3)       | 32 V   |
| Rated surge voltage (III/3) | 1.5 kV |
| Rated voltage (III/2)       | 160 V  |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2)        | 160 V  |
| Rated surge voltage (II/2)  | 1.5 kV |

### Mounting

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

### Processing notes

|                                  |                       |
|----------------------------------|-----------------------|
| Process                          | Reflow/wave soldering |
| Moisture Sensitive Level         | MSL 3                 |
| Classification temperature $T_c$ | 245 °C                |
| Solder cycles in the reflow      | 3                     |

### 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   |

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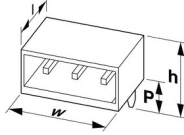
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|   |                      |
|---|----------------------|
| Metal surface contact area (top layer)      | Tin (3 - 5 µm Sn)    |
| Metal surface contact area (middle layer)   | Nickel (1 - 3 µm Ni) |
| Metal surface soldering area (top layer)    | Tin (3 - 5 µm Sn)    |
| Metal surface soldering area (middle layer) | Nickel (1 - 3 µm Ni) |

## Material data - housing

|   |              |
|---|--------------|
| Color (Housing)   | black (9005) |
| Insulating material   | PA           |
| Insulating material group   | IIIa         |
| CTI according to IEC 60112  | 250          |
| 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                 | 2.5 mm   |
| Width [w]             | 26.9 mm  |
| Height [h]            | 11.9 mm  |
| Length [l]            | 10.1 mm  |
| Installed height      | 8.1 mm   |
| Solder pin length [P] | 3.8 mm   |
| Pin dimensions        | 0.8 x 0.8 mm   |

## Mechanical tests

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

### Repeated connection and disconnection

|               |                     |
|---------------|---------------------|
| 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 | 0.2 mm <sup>2</sup> / solid / > 10 N    |
|   | 0.2 mm <sup>2</sup> / flexible / > 10 N |
|   | 0.5 mm <sup>2</sup> / solid / > 20 N    |