# PCB header - MSTBA 2,5/ 5-G-5,08 PA 1,2,3,5 - 1750472

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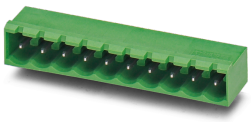

The figure shows a 10-position version of the product

PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTBA 2,5/..-G, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Plug-in direction parallel to the PCB
- Closed contour for optimum stability of the plug-in connection
- Easy PCB replacement thanks to plug-in modules


## Key Commercial Data

| | |
|---|---|
| Packing unit | 50 pc |
| GTIN | 4 046356 427791 |
| GTIN | 4046356427791 |

## Technical data

### Item properties

| | |
|---|---|
| Brief article description | PCB header |
| Connector system | CLASSIC COMBICON |
| Type of contact | Male connector |
| Range of articles | MSTBA 2,5/..-G |
| Number of positions | 5 |
| Pin layout | Linear pinning |
| Locking | without |
| Number of rows | 1 |
| Number of connections | 5 |
| Number of potentials | 5 |

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## Technical data

### Item properties

| | |
|---|---|
| Pin connector pattern alignment | Standard |

### Electrical parameters

| | |
|---|---|
| Nominal current | 12 A |
| Nom. voltage | 320 V |
| Rated voltage (III/3) | 320 V |
| Rated voltage (III/2) | 320 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |

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

### Material data - housing

| | |
|---|---|
| Housing color | 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 |

### Flange specifications

| | |
|---|---|
| Type of locking | without |

### Dimensions for the product

| | |
|---|---|
| Caption | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [ l ] | 12 mm |
| Width [ w ] | 27.4 mm |
| Height [ h ] | 12.1 mm |
| Pitch | 5.08 mm |
| Height (without solder pin) | 8.6 mm |
| Solder pin [P] | 3.5 mm |

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## Technical data

### Dimensions for PCB design

| | |
|---|---|
| Hole diameter | 1.4 mm |

### Packaging information

| | |
|---|---|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| Denomination packing units | Pcs. |

### Ambient conditions

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

### Air clearances and creepage distances

| | |
|---|---|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 4 mm |
| Minimum creepage distance value (III/2) | 3 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |

### Mechanical tests (A)

| | |
|---|---|
| Test specification | IEC 61984 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Polarization when inserted requirement >20 N | Test passed |
| Contact holder in insert requirements >20 N | Test passed |

### Durability tests (B)

| | |
|---|---|
| Specification | IEC 60512-9-1:2010-03 |
| Contact resistance $R_1$ | 1.4 mΩ |
| Insertion/withdrawal cycles | 25 |
| Contact resistance $R_2$ | 1.4 mΩ |
| Impulse withstand voltage at sea level | 4.8 kV |
| Insulation resistance, neighboring positions | > 5 MΩ |

### Thermal tests (C)

| | |
|---|---|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 24 |
| Upper limiting temperature requirements <100 °C | Test passed |

### Climatic tests (D)

| | |
|---|---|
| Specification | ISO 6988:1985-02 |

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## Technical data

### Climatic tests (D)

| | |
|---|---|
| Cold stress | -40 °C/2 h |
| Thermal stress | 100 °C/168 h |
| Corrosive stress | 0.2 $dm^3$ $SO_2$ on 300 $dm^3$/40 °C/1 cycle |
| Impulse withstand voltage at sea level | 4.8 kV |
| Power-frequency withstand voltage | 2.21 kV |

### Environmental and durability tests (E)

| | |
|---|---|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

### Vibration test

| | |
|---|---|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

### Standards and Regulations

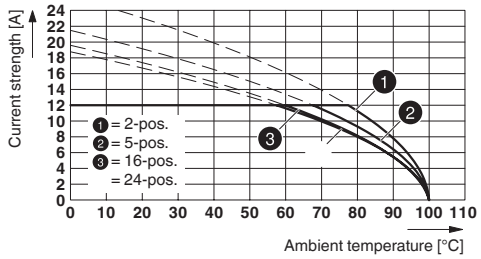
| | |
|---|---|
| Connection in acc. with standard | EN-VDE |

### Environmental Product Compliance

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

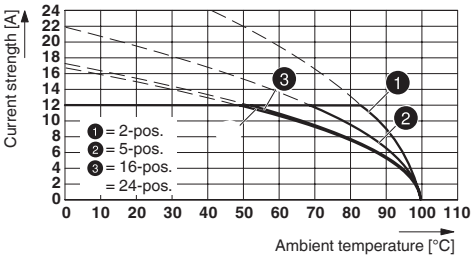
## Drawings

Diagram




Type: FRONT-MSTB 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

Diagram




Type: IC 2,5/..-G-5,08 with MSTBA 2,5/..-G-5,08

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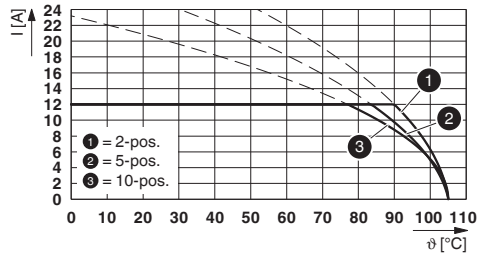
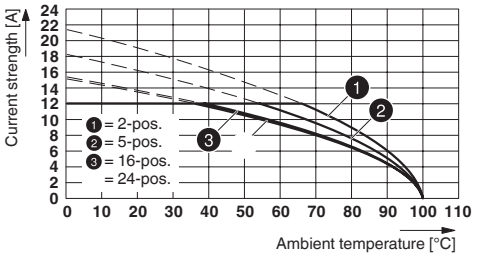
Diagram



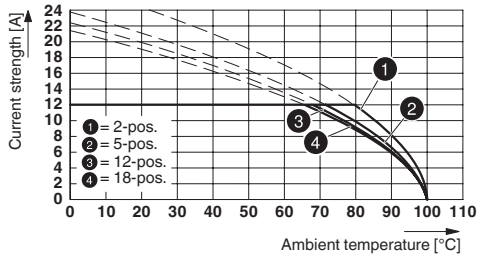

Type: TFKC 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

Diagram



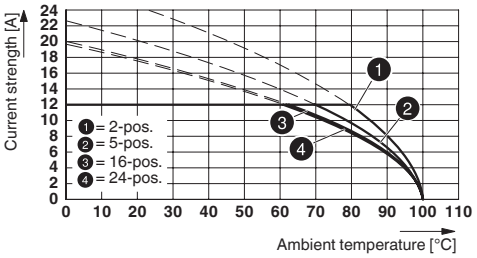

Type: MSTBP 2,5/...-ST-5,08 with MSTBW 2,5/...-G-5,08

Diagram



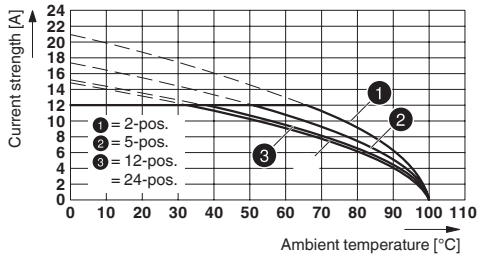

Type: MSTBT 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08-5,08

Diagram



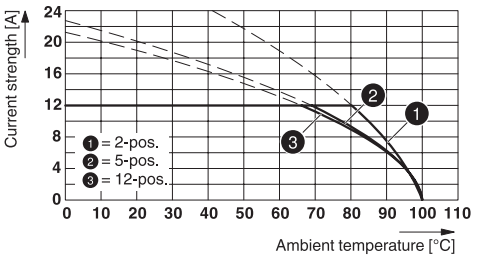

Type: MSTBP 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08-5,08

Diagram




Type: MVSTBR 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

Diagram




Type: FKCN 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

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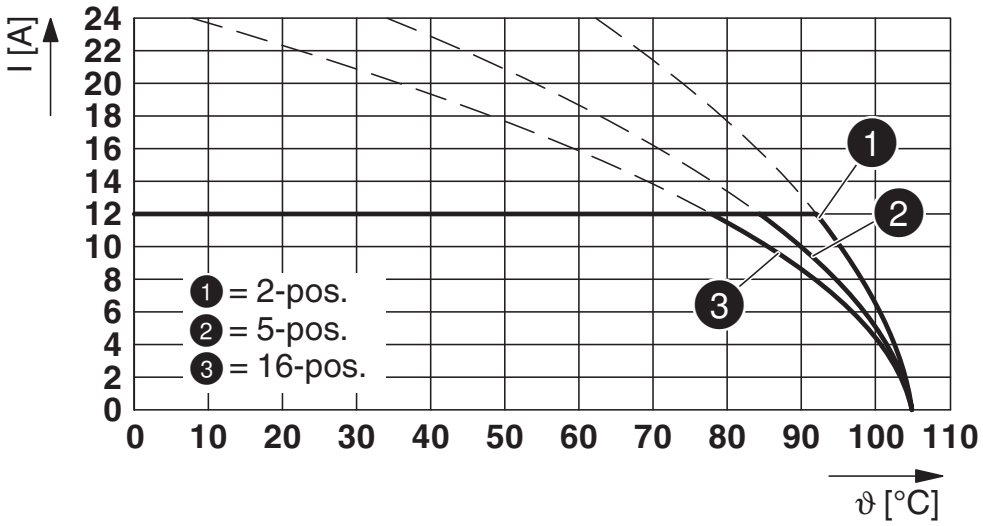
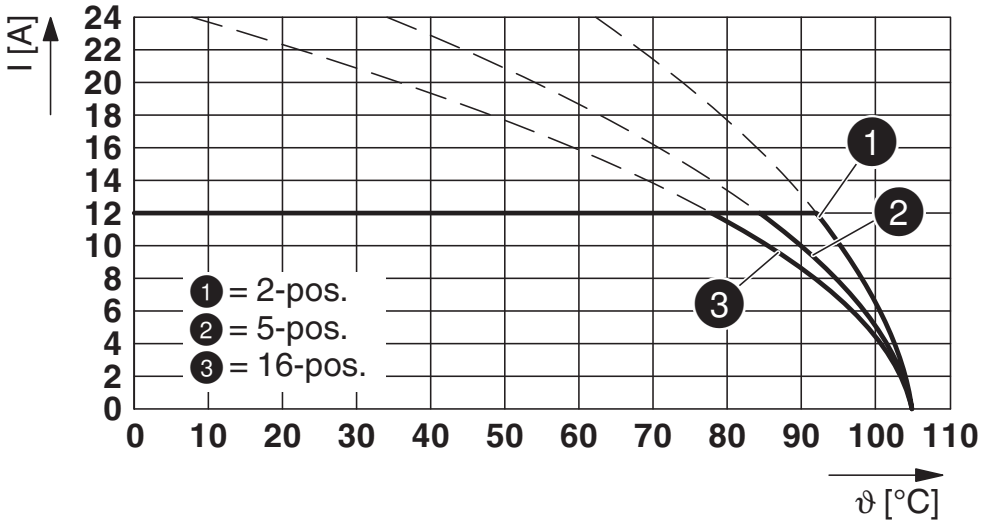
Diagram




Type: FKCVR 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

Diagram




Type: FKCVW 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08

## Classifications

### eCl@ss

| | |
|---|---|
| eCl@ss 10.0.1 | 27440402 |
| eCl@ss 11.0 | 27460201 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |
| eCl@ss 5.0 | 27260700 |

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## Classifications

### eCl@ss

| | |
|---|---|
| eCl@ss 5.1 | 27260700 |
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440402 |
| eCl@ss 9.0 | 27440402 |

### ETIM

| | |
|---|---|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002637 |
| ETIM 6.0 | EC002637 |
| ETIM 7.0 | EC002637 |

### UNSPSC

| | |
|---|---|
| UNSPSC 6.01 | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11 | 39121409 |
| UNSPSC 12.01 | 39121409 |
| UNSPSC 13.2 | 39121409 |
| UNSPSC 18.0 | 39121409 |
| UNSPSC 19.0 | 39121409 |
| UNSPSC 20.0 | 39121409 |
| UNSPSC 21.0 | 39121409 |



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