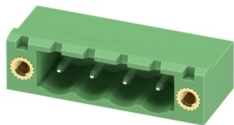


# MSTB 2,5/ 4-GF-5,08 EX - PCB header

1795682

<https://www.phoenixcontact.com/us/products/1795682>

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTB 2,5/...-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting method: Threaded flange, type of packaging: packed in cardboard

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use
- Satisfies the more stringent safety requirements of “Ex eb” protection according to IEC 60079-7 for potentially explosive areas

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1795682       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA03          |
| Product key                          | AACSHN        |
| GTIN                                 | 4046356635882 |
| Weight per piece (including packing) | 2.84 g        |
| Weight per piece (excluding packing) | 2.555 g       |
| Customs tariff number                | 85366930      |
| Country of origin                    | DE            |

# MSTB 2,5/ 4-GF-5,08 EX - PCB header



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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB headers           |
| Product family            | MSTB 2,5/..-GF-EX     |
| Product line              | COMBICON Connectors M |
| Type                      | Standard              |
| Number of positions       | 4                     |
| Pitch                     | 5.08 mm               |
| Number of connections     | 4                     |
| Number of rows            | 1                     |
| Number of potentials      | 4                     |
| Mounting type             | Threaded flange       |
| Pin layout                | Linear pinning        |
| Solder pins per potential | 1                     |

### Electrical properties

#### Properties

|   |                          |
|---|--------------------------|
| Nominal current $I_N$                   | 12 A                     |
| Nominal voltage $U_N$                   | 176 V                    |
| Rated current / conductor cross-section | 12 A/2.5 mm <sup>2</sup> |

### Ex data

#### Ex approval

|                                 |   |
|---------------------------------|---|
| Identification                  | 0344 <sup>Ⓢ</sup> II 2GD / Ex eb IIC Gb |
| EU-type examination certificate | KEMA 10ATEX0196 U                       |
| IECEx certificate               | IECEx KEM 10.0093U                      |

### Mounting

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

#### Flange

|                   |        |
|-------------------|--------|
| Tightening torque | 0.3 Nm |
|-------------------|--------|

#### Attachment on the PCB

|                   |  |
|-------------------|--|
| Tightening torque | 0.3 Nm   |
| Screw             | Sheet metal screw ISO 1481-ST 2,2x6,5 C or ISO 7049-ST 2,2x6,5 C |

### Material specifications

#### Material data - contact

|      |  |
|------|--|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
|------|--|

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|   |                           |
|---|---------------------------|
| Contact material                            | Cu alloy                  |
| Surface characteristics                     | Tin-plated                |
| Metal surface contact area (top layer)      | Tin (3 µm - 5 µm Sn)      |
| Metal surface contact area (middle layer)   | Nickel (1.3 µm - 3 µm Ni) |
| Metal surface soldering area (top layer)    | Tin (3 µm - 5 µm Sn)      |
| Metal surface soldering area (middle layer) | Nickel (1.3 µm - 3 µm Ni) |

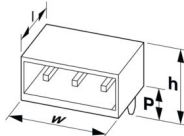
## Material data - housing

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

## 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. |
|--------------------|--|

## Dimensions

|                       |  |
|-----------------------|--|
| Dimensional drawing   |  |
| Pitch                 | 5.08 mm  |
| Width [w]             | 30.48 mm   |
| Height [h]            | 11.8 mm  |
| Length [l]            | 12 mm  |
| Installed height      | 8.57 mm  |
| Solder pin length [P] | 3.23 mm  |
| Pin dimensions        | 1 x 1 mm   |

## PCB design

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

## Environmental and real-life conditions

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport)   | 30 % ... 70 %    |

# MSTB 2,5/ 4-GF-5,08 EX - PCB header



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|                                 |                   |
|---------------------------------|-------------------|
| Ambient temperature (assembly)  | -5 °C ... 100 °C  |
| Ambient temperature (operation) | -60 °C ... 110 °C |

## Packaging specifications

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

# MSTB 2,5/ 4-GF-5,08 EX - PCB header



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1795682>

|  <b>ATEX</b><br>Approval ID: KEMA 10ATEX0196 U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 176 V                 | 12 A                  | -                 | 0.2 - 2.5                   |

|  <b>IECEx</b><br>Approval ID: IECEx KEM 10.0093U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 176 V                 | 12 A                  | -                 | 0.2 - 2.5                   |

|  <b>CCC</b><br>Approval ID: 2021122313114375 |  |  |  |  |
|---|--|--|--|--|
|---|--|--|--|--|

# MSTB 2,5/ 4-GF-5,08 EX - PCB header



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002637 |
|-----------|----------|

### UNSPSC

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

# MSTB 2,5/ 4-GF-5,08 EX - PCB header



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## 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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