# MSTBV 2,5/ 2-GF-5,08 EX - PCB header

1796322

https://www.phoenixcontact.com/us/products/1796322

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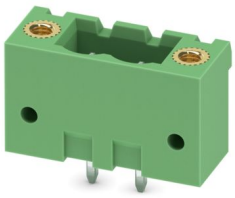


PCB headers, nominal cross section: 2.5 mm$^2$, color: green, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 2, product range: MSTBV 2,5/..-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 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

- Satisfies the more stringent safety requirements of “Ex eb” protection according to IEC 60079-7 for potentially explosive areas
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Vertical connection enables multi-row arrangement on the PCB
- Screwable flange for superior mechanical stability

## Commercial data

| | |
|---|---|
| Item number | 1796322 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | AA03 |
| Product key | AACSMK |
| GTIN | 4046356636438 |
| Weight per piece (including packing) | 2.219 g |
| Weight per piece (excluding packing) | 1.934 g |
| Customs tariff number | 85366930 |
| Country of origin | DE |

## Technical data

### Product properties

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

Fitting of components

| | |
|---|---|
| Partial assembly | No |

### Electrical properties

Properties

| | |
|---|---|
| Nominal current $I_N$ | 12 A |
| Nominal voltage $U_N$ | 176 V |
| Rated current / conductor cross-section | 12 A/2.5 mm² |

### Ex data

Ex approval

| | |
|---|---|
| Identification | 0344 Ex 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 |
| 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) |

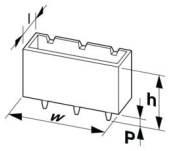
Material data - housing

| | |
|---|---|
| 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] | 20.32 mm |
| Height [h] | 15.9 mm |
| Length [l] | 8.6 mm |
| Installed height | 12 mm |
| Solder pin length [P] | 3.9 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 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -60 °C ... 110 °C |

## Packaging specifications

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

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1796322

**ATEX**
Approval ID: KEMA 10ATEX0196 U

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 176 V | 12 A | - | 0.2 - 2.5 |

**IECEx**
Approval ID: IECEx KEM 10.0093U

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 176 V | 12 A | - | 0.2 - 2.5 |

**CCC**
Approval ID: 2021122313114375

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

## 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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.01 kg CO2e |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