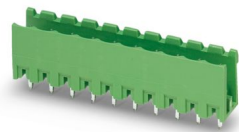


Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 13, number of rows: 1, number of positions: 13, number of connections: 13, product range: MSTBV 2,5/...-G, 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, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- 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
- Items that can be aligned in various pitches support flexible and space-saving PCB assembly

Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1755075                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA01                           |
| Product key                          | AACSMB                         |
| GTIN                                 | 4046356332262                  |
| Weight per piece (including packing) | 5.4 g                          |
| Weight per piece (excluding packing) | 4.819 g                        |
| Customs tariff number                | 85366930                       |
| Country of origin                    | DE                             |

# MSTBV 2,5/13-G-5,08 BK AU - PCB header



1755075

<https://www.phoenixcontact.com/us/products/1755075>

## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB headers           |
| Product family            | MSTBV 2,5/..-G        |
| Product line              | COMBICON Connectors M |
| Number of positions       | 13                    |
| Pitch                     | 5.08 mm               |
| Number of connections     | 13                    |
| Number of rows            | 1                     |
| Number of potentials      | 13                    |
| Mounting flange           | without               |
| Pin layout                | Linear pinning        |
| Solder pins per potential | 1                     |

### Electrical properties

|                             |       |
|-----------------------------|-------|
| Nominal current $I_N$       | 12 A  |
| Nominal voltage $U_N$       | 320 V |
| Degree of pollution         | 3     |
| Rated voltage (III/3)       | 250 V |
| Rated surge voltage (III/3) | 4 kV  |
| Rated voltage (III/2)       | 320 V |
| Rated surge voltage (III/2) | 4 kV  |
| Rated voltage (II/2)        | 400 V |
| Rated surge voltage (II/2)  | 4 kV  |

### Mounting

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

### 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                     | partially gold-plated                                                            |
| Metal surface contact area (top layer)      | Gold (0.8 - 1.4 $\mu\text{m}$ Au)                                                |
| Metal surface contact area (middle layer)   | Nickel (1 - 3 $\mu\text{m}$ Ni)                                                  |
| Metal surface soldering area (top layer)    | Tin (5 - 7 $\mu\text{m}$ Sn)                                                     |
| Metal surface soldering area (middle layer) | Nickel (1 - 3 $\mu\text{m}$ Ni)                                                  |

#### Material data - housing

|                     |     |
|---------------------|-----|
| Color ()            | ()  |
| Insulating material | PBT |

# MSTBV 2,5/13-G-5,08 BK AU - PCB header



1755075

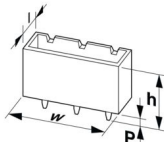
<https://www.phoenixcontact.com/us/products/1755075>

|                                        |      |
|----------------------------------------|------|
| Insulating material group              | IIIa |
| CTI according to IEC 60112             | 225  |
| Flammability rating according to UL 94 | V0   |

## 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]             | 66.04 mm                                                                           |
| Height [h]            | 15.9 mm                                                                            |
| Length [l]            | 8.57 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 |
|---------------|--------|

## Electrical tests

### 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)                       | 250 V               |
| Rated surge voltage (III/3)                            | 4 kV                |
| minimum clearance value - non-homogenous field (III/3) | 3 mm                |
| minimum creepage distance (III/3)                      | 4 mm                |
| Rated insulation voltage (III/2)                       | 320 V               |
| Rated surge voltage (III/2)                            | 4 kV                |
| minimum clearance value - non-homogenous field (III/2) | 3 mm                |
| minimum creepage distance (III/2)                      | 3.2 mm              |
| Rated insulation voltage (II/2)                        | 400 V               |
| Rated surge voltage (II/2)                             | 4 kV                |
| minimum clearance value - non-homogenous field (II/2)  | 3 mm                |
| minimum creepage distance (II/2)                       | 4 mm                |

# MSTBV 2,5/13-G-5,08 BK AU - PCB header



1755075

<https://www.phoenixcontact.com/us/products/1755075>

## Environmental and real-life conditions

### 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 |
|-------------------|---------------------|

# MSTBV 2,5/13-G-5,08 BK AU - PCB header



1755075

<https://www.phoenixcontact.com/us/products/1755075>

## Classifications

### ECLASS

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121409 |
|-------------|----------|

# MSTBV 2,5/13-G-5,08 BK AU - PCB header



1755075

<https://www.phoenixcontact.com/us/products/1755075>

## 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%               |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)