

2201561  
<https://www.phoenixcontact.com/us/products/2201561>

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, color: black, contact surface: Au, contact connection type: Pin, number of rows: 1, number of positions: 3, product range: MSTBO 2,5/-G1R THR Au, mounting: THR soldering, pin layout: Linear pinning, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Orthogonal, locking: without, Product with pin output on right side

Your advantages

- Versions available for wave and THR soldering process
- High mechanical strength and resistance to corrosion
- Contact resistance with long-term stability for continuous use

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2201561       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 5,000 pc      |
| Product key                          | ACHADB        |
| GTIN                                 | 4046356864381 |
| Weight per piece (including packing) | 2.393 g       |
| Weight per piece (excluding packing) | 2.393 g       |
| Country of origin                    | PL            |

# MSTBO 2,5/ 3 G1R THR BK AU - PCB header



2201561

<https://www.phoenixcontact.com/us/products/2201561>

## Technical data

### Product properties

|                           |                          |
|---------------------------|--------------------------|
| Product type              | PCB headers              |
| Product family            | MSTBO 2,5/...-G1R THR Au |
| Number of positions       | 3                        |
| Number of rows            | 1                        |
| Pin layout                | Linear pinning           |
| Solder pins per potential | 1                        |

### Electrical properties

#### Properties

|                    |         |
|--------------------|---------|
| Contact resistance | 1.61 mΩ |
|--------------------|---------|

### Mounting

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

### Material specifications

#### Material data - contact

|                                        |           |
|----------------------------------------|-----------|
| Metal surface contact area (top layer) | Gold (Au) |
|----------------------------------------|-----------|

#### Material data - housing

|                 |              |
|-----------------|--------------|
| Color (Housing) | black (9005) |
|-----------------|--------------|

### Dimensions

|                |          |
|----------------|----------|
| Pitch          | 5 mm     |
| Pin dimensions | 1 x 1 mm |

### Mechanical tests

#### Visual inspection

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result        | Test passed           |

#### Dimension check

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result        | Test passed           |

#### Resistance of inscriptions

|               |                        |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result        | Test passed            |

#### Polarization and coding

|               |                        |
|---------------|------------------------|
| Specification | IEC 60512-13-5:2006-02 |
|---------------|------------------------|

# MSTBO 2,5/ 3 G1R THR BK AU - PCB header



2201561

<https://www.phoenixcontact.com/us/products/2201561>

| Result                                      | Test passed            |
|---------------------------------------------|------------------------|
| Contact holder in insert                    |                        |
| Specification                               | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed            |
| Insertion and withdrawal forces             |                        |
| Result                                      | Test passed            |
| No. of cycles                               | 25                     |
| Insertion strength per pos. approx.         | 7 N                    |
| Withdraw strength per pos. approx.          | 6 N                    |

## Electrical tests

### Thermal test | Test group C

|                            |                       |
|----------------------------|-----------------------|
| Specification              | IEC 60512-5-1:2002-02 |
| Tested number of positions | 4                     |

### Insulation resistance

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | $10^{12} \Omega$      |

## Environmental and real-life conditions

### Vibration test

|                        |                             |
|------------------------|-----------------------------|
| Specification          | IEC 60068-2-6:2007-12       |
| Frequency              | 10 - 500 - 10 Hz            |
| Sweep speed            | 1 octave/min                |
| Amplitude              | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration           | 5g (60.1 Hz ... 150 Hz)     |
| Test duration per axis | 2 h                         |
| Test directions        | X-, Y- and Z-axis           |

### Durability test

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level       | 4.8 kV                |
| Contact resistance $R_1$                     | 1.61 m $\Omega$       |
| Contact resistance $R_2$                     | 1.62 m $\Omega$       |
| Insertion/withdrawal cycles                  | 25                    |
| Insulation resistance, neighboring positions | $>10^{12} \Omega$     |

### Climatic test

|                                   |                   |
|-----------------------------------|-------------------|
| Specification                     | ISO 6988:1985-02  |
| Corrosive stress                  | KFW 0.2 S/1 cycle |
| Thermal stress                    | 100 °C/168 h      |
| Power-frequency withstand voltage | 2.25 kV           |

# MSTBO 2,5/ 3 G1R THR BK AU - PCB header



2201561

<https://www.phoenixcontact.com/us/products/2201561>

## Ambient conditions

|                                         |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| Ambient temperature (operation)         | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 55 °C                                    |
| Relative humidity (storage/transport)   | 30 % ... 70 %                                       |
| Ambient temperature (assembly)          | -5 °C ... 100 °C                                    |

# MSTBO 2,5/ 3 G1R THR BK AU - PCB header



2201561

<https://www.phoenixcontact.com/us/products/2201561>

## 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 2025 © - 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)