

# MSTBO 2,5/ 3 G1R THR BKAU CR13 - PCB header



2201558

<https://www.phoenixcontact.com/us/products/2201558>

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.



The figure shows the standard item

PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 16 A, rated voltage (III/2): 320 V, contact surface: Au, contact connection type: Pin, number of rows: 1, number of positions: 3, product range: MSTBO 2,5/..-G1R THR Au, pitch: 5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.5 mm, number of solder pins per potential: 1, Pin connector pattern alignment: Orthogonal, locking: without, type of packaging: 44 mm wide tape, Fixed coding of the positions: 1, 3, item with lateral pin outlet on the right

## 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
- Gold-plated contacts ensure transfer quality remains stable over the long term

## Commercial data

Item number	2201558
Packing unit	50 pc
Minimum order quantity	170 pc
Note	Made to order (non-returnable)
Sales key	AC22
Product key	ACHADB
GTIN	4046356864251
Weight per piece (including packing)	2.428 g
Weight per piece (excluding packing)	2.428 g
Customs tariff number	85366930
Country of origin	PL

# MSTBO 2,5/ 3 G1R THR BKAU CR13 - PCB header



2201558

<https://www.phoenixcontact.com/us/products/2201558>

## Technical data

### Product properties

Product type	PCB headers
Product family	MSTBO 2,5/..-G1R THR Au
Type	Header perpendicular to the PCB
Number of positions	3
Pitch	5 mm
Number of rows	1
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current $I_N$	16 A
Nominal voltage $U_N$	320 V
Contact resistance	1.61 m $\Omega$
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)	630 V
Rated surge voltage (II/2)	4 kV

### Mounting

Mounting type	THR soldering
Pin layout	Linear pinning

#### Processing notes

Moisture Sensitive Level	MSL 1
Classification temperature $T_c$	260 °C
Solder cycles in the reflow	3

### 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	gold-plated
Metal surface contact area (top layer)	Gold (Au)
Metal surface soldering area (middle layer)	Nickel (1.3 $\mu\text{m}$ - 3 $\mu\text{m}$ Ni)

#### Material data - housing

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

# MSTBO 2,5/ 3 G1R THR BKAU CR13 - PCB header



2201558

<https://www.phoenixcontact.com/us/products/2201558>

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

## Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	14.95 mm
Height [h]	16.5 mm
Length [l]	15.35 mm
Solder pin length [P]	2.5 mm
Pin dimensions	1 x 1 mm

## PCB design

Hole diameter	1.5 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
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

Specification	IEC 60512-13-2:2006-02
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	$10^{12} \Omega$

## Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
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)	3.2 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)	1.6 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

## Environmental and real-life conditions

## 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	$>10^{12} \Omega$

# MSTBO 2,5/ 3 G1R THR BKAU CR13 - PCB header



2201558

<https://www.phoenixcontact.com/us/products/2201558>

## 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

## 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

## Ambient conditions

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

## Packaging specifications

Type of packaging	44 mm wide tape
[W] tape width	44 mm
Outer packaging type	Transparent-Bag

# MSTBO 2,5/ 3 G1R THR BKAU CR13 - PCB header



2201558

<https://www.phoenixcontact.com/us/products/2201558>

## Classifications

### ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

### ETIM

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

### UNSPSC

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

2201558

<https://www.phoenixcontact.com/us/products/2201558>

## 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	0.034 kg CO2e
---------	---------------

Phoenix Contact 2026 © - 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)