

# GMSTBO 2,5 HV/ 2-GL-7,25 THR - PCB header



2199867

<https://www.phoenixcontact.com/us/products/2199867>

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 16 A, rated voltage (III/2): 630 V, contact connection type: Pin, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: GMSTBO 2,5 HV, pitch: 7.25 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.1 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, type of packaging: packed in cardboard, Product with pin output on left side

## Your advantages

- Suitable for reflow soldering processes

## Commercial data

Item number	2199867
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AC08
Product key	ACHADB
Catalog page	Page 510 (C-1-2013)
GTIN	4046356495301
Weight per piece (including packing)	2.56 g
Weight per piece (excluding packing)	2.55 g
Customs tariff number	85366930
Country of origin	PL

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## Technical data

### Product properties

Type	Standard
Product type	PCB headers
Product family	GMSTBO 2,5 HV
Number of positions	2
Pitch	7.25 mm
Number of connections	2
Number of rows	1
Mounting flange	without
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	16 A
Nominal voltage $U_N$	400 V
Degree of pollution	3
Contact resistance	1.3 m $\Omega$
Rated voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	6 kV

### Mounting

Mounting type	THR soldering
Pin layout	Linear pinning

### Material specifications

#### Material data - contact

Contact material	Cu alloy
Surface characteristics	Tin-plated

#### Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

### Dimensions

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Dimensional drawing	
Pitch	7.25 mm
Width [w]	14.95 mm
Height [h]	16.84 mm
Length [l]	15.65 mm
Installed height	21.27 mm
Solder pin length [P]	2.1 mm
Pin dimensions	1 x 1 mm

## PCB design

Pin spacing	7.25 mm
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

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	3.5 N

## Electrical tests

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## Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	3

## Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 10 TΩ

## Air clearances and creepage distances |

Insulating material group	IIIa
Rated insulation voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	6 kV

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

### Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R <sub>1</sub>	1.3 mΩ
Contact resistance R <sub>2</sub>	1.5 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 10 TΩ

### Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV

### 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

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## Packaging specifications

Type of packaging
packed in cardboard

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## Classifications

### ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

### ETIM

ETIM 9.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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