

https://www.phoenixcontact.com/us/products/5433529



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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: signal grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: BCH-HF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 mm, number of solder pins per potential: 1, plug-in system: BASICLINE 2,5, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

## Your advantages

- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies
- · Easy PCB replacement thanks to plug-in modules
- · Well-known mounting principle allows worldwide use
- · Plug-in direction parallel to the PCB
- · Screwable flange for superior mechanical stability

### Commercial data

Item number	5433529
Packing unit	100 pc
Minimum order quantity	100 pc
Note	Made to order (non-returnable)
Sales key	AA03
Product key	AACSQB
GTIN	4046356170727
Weight per piece (including packing)	3.7 g
Weight per piece (excluding packing)	3.6 g
Customs tariff number	85366930
Country of origin	CN



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## Technical data

## Product properties

Product type	PCB headers
Product family	BCH-HF
Product line	COMBICON Connectors M
Туре	Standard
Number of positions	7
Pitch	5.08 mm
Number of connections	7
Number of rows	1
Number of potentials	7
Mounting flange	Threaded flange
Pin layout	Linear pinning
Solder pins per potential	1

## Electrical properties

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	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	
Flange		
Tightening torque	0.3 Nm	

## 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 (4 - 8 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.5 - 4 µm Ni)
Metal surface soldering area (top layer)	Tin (4 - 8 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 - 4 µm Ni)



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#### Material data - housing

Color (Housing)	signal grey (7004)
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	P <sub>Y</sub> <sup>A</sup> h
Pitch	5.08 mm
Width [w]	45.75 mm
Height [h]	11.8 mm
Length [I]	12 mm
Installed height	8.57 mm
Solder pin length [P]	3.23 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	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



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Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 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)	3 mm

## 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
Type of packaging	packed in cardboard



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## **Approvals**

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c <b>711</b> us	CULus Recognized Approval ID: E60425-20071007				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B					
		300 V	15 A	-	-

<b>₩</b> DE	VDE Gutachten mit Fertigungsüberwachung Approval ID: 40040694					
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
		320 V	12 A	-	0.2 - 2.5	



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## Classifications

### **ECLASS**

	ECLASS-11.0	27460201		
	ECLASS-12.0	27460201		
	ECLASS-13.0	27460201		
ETIM				
	ETIM 8.0	EC002637		
UNSPSC				
	UNSPSC 21.0	39121400		



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## Environmental product compliance

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%			



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#### Accessories

CR-BC-M - Coding section

5436157

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Coding section



## MSTB-BL - Accessories

1755477

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Keying cap, for forming sections, plugs onto header pin, green insulating material



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#### SK 5/3,8:FORTL.ZAHLEN - Marker card

0804183

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Marker card, white, labeled, horizontal: consecutive numbers  $1\dots 10$ ,  $11\dots 20$ , etc. up to  $91\dots (99)100$ , mounting type: adhesive, for terminal block width: 5 mm, lettering field size:  $5\times 3.8\text{ mm}$ 

#### SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

https://www.phoenixcontact.com/us/products/0803906



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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