

# PC 16 HC/ 1-G-10,16 BK RC - PCB header



1464806

<https://www.phoenixcontact.com/ie/products/1464806>

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PCB headers, nominal cross section: 16 mm<sup>2</sup>, color: black, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, number of rows: 1, number of positions: 1, product range: PC 16 HC/...-G, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 4, plug-in system: COMBICON PC 16 advanced, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use

## Commercial Data

Item number	1464806
Packing unit	25 pc
Minimum order quantity	25 pc
Sales Key	*****
Product Key	AAESDA
GTIN	4063151857646
Weight per Piece (including packing)	10.22 g
Weight per Piece (excluding packing)	10.22 g
Country of origin	PL

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## Technical Data

### Product properties

Product line	COMBICON Connectors XL
Product type	PCB headers
Product family	PC 16 HC/...-G
Number of positions	1
Pitch	10.16 mm
Number of rows	1
Pin layout	Linear pinning
Solder pins per potential	4

### Electrical properties

Nominal current $I_N$	76 A
Nominal voltage $U_N$	1000 V
Degree of pollution	3
Contact resistance	0.235 m $\Omega$
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 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	Tin-plated
Metal surface contact area (top layer)	Tin (4 - 8 $\mu$ m Sn)
Metal surface contact area (middle layer)	Nickel (1.5 - 4 $\mu$ m Ni)
Metal surface soldering area (top layer)	Tin (4 - 8 $\mu$ m Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 - 4 $\mu$ m Ni)

#### Material data - housing

Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	I

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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

## Material data – actuating element

Color ()	()
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## 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.
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## Dimensions

Dimensional drawing	
Pitch	10.16 mm
Width [w]	11.4 mm
Height [h]	27.6 mm
Length [l]	32.9 mm
Installed height	23.6 mm
Solder pin length [P]	4 mm

## Mechanical tests

### Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

### Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

### Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.75 mm <sup>2</sup> / solid / > 30 N
	0.75 mm <sup>2</sup> / flexible / > 30 N
	16 mm <sup>2</sup> / solid / > 100 N
	16 mm <sup>2</sup> / flexible / > 100 N

### Insertion and withdrawal forces

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Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

## Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	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

## Visual inspection

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

## Dimension check

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

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	6

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### Temperature cycles

Specification	IEC 60999-1:1999-11
Result	Test passed

### Air clearances and creepage distances | 1. Insulation coordination

Specification	IEC 61984:2008-10
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm

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Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

## Air clearances and creepage distances | 2. Insulation coordination

Specification	IEC 60664-1:2020-05
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V AC/DC
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1250 V DC
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1500 V DC
Rated surge voltage (II/2)	8 kV
minimum clearance value - non-homogenous field (II/2)	8 mm
minimum creepage distance (II/2)	8 mm

## 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	0.15 mm (10 Hz ... 60.1 Hz)
Sweep speed	20 m/s <sup>2</sup> (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	9.8 kV
Contact resistance R <sub>1</sub>	0.235 mΩ
Contact resistance R <sub>2</sub>	0.212 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

### Climatic test

Specification	ISO 6988:1985-02
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Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	4.26 kV

## Ambient conditions

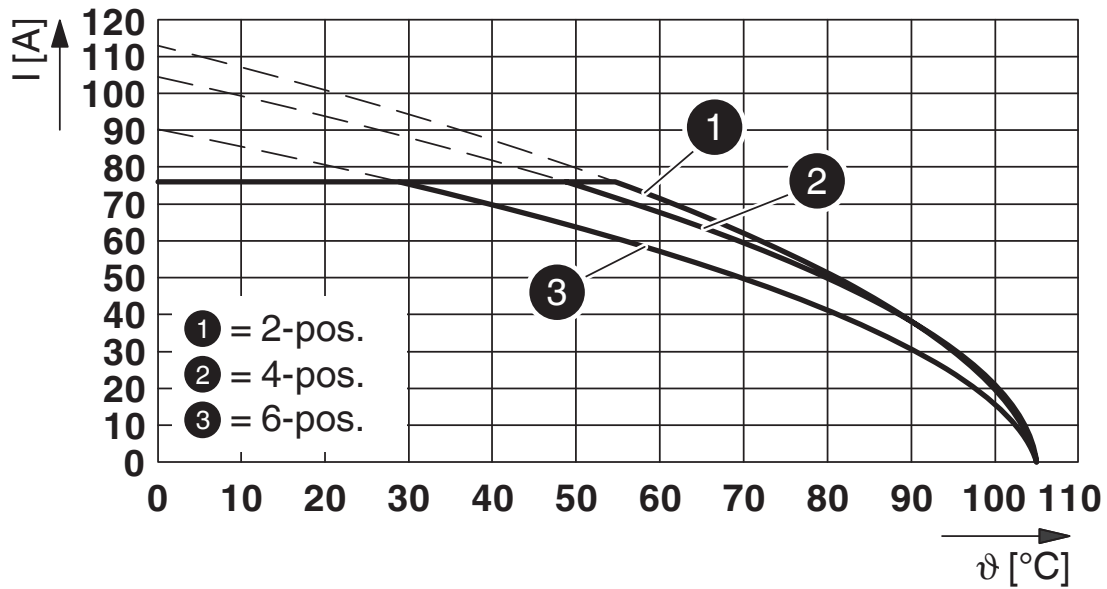
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

Type of packaging	packed in cardboard
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Drawings

Diagram



Type: LPC 16 HC/...-ST(L...)-10,16 with PC 16 HC/...-G(L...)-10,16

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## Classifications

### ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201



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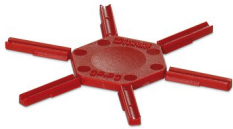
## Accessories

### CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/ie/products/1701967>

Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



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### LPC 16 HC/ 1-ST-10,16 BK RC - PCB connector

1459330

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PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: black, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of rows: 1, number of positions: 1, product range: LPC 16 HC/...-ST, pitch: 10.16 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16 advanced, locking: without, mounting: without, type of packaging: packed in cardboard

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## LPC 16 HC/ 1-ST-10,16 - PCB connector

1394074

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PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of rows: 1, number of positions: 1, product range: LPC 16 HC/..-ST, pitch: 10.16 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16 advanced, locking: without, mounting: without, type of packaging: packed in cardboard

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