

# PCB header - PC 6-16/ 4-GF-10,16 - 1913730

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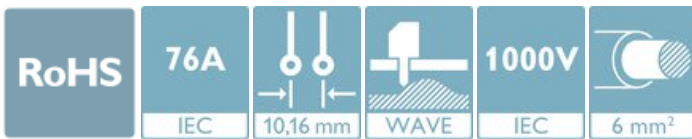


PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: PC 6-16/..-GF, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, Number of solder pins per potential: 3, plug-in system: POWER COMBICON 16, Pin connector pattern alignment: Standard, Locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, The nominal current of 76 A applies in connection with connectors from the PC 16 family. 41 A are reached in connection with PC 6 connectors (50 A in accordance with UL).


The figure shows a 6-position version

## Your advantages

- Well-known mounting principle allows worldwide use
- Screwable flange for superior mechanical stability
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies



## Key Commercial Data

Packing unit	50 pc
GTIN	 4 017918 179212
GTIN	4017918179212

## Technical data

### Item properties

Brief article description	PCB header
Connector system	POWER COMBICON 16
Type of contact	Male connector
Range of articles	PC 6-16/..-GF
Pitch	10.16 mm
Number of positions	4
Mounting type	Wave soldering
Pin layout	Linear pinning
Locking	Threaded flange
Number of rows	1
Number of connections	4
Number of potentials	4

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## Technical data

### Item properties

Pin connector pattern alignment	Standard
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### Electrical parameters

Nominal current	76 A
Nom. voltage	1000 V
Rated voltage (III/3)	630 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

### 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	completely silver-plated
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)
Metal surface soldering area (top layer)	Silver (4 - 8 µm Ag)

### Material data - housing

Housing color	green (6021)
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

### Flange specifications

Type of locking	Screw locking
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### Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	32 mm
Width [ w ]	58.4 mm
Height [ h ]	17.71 mm
Pitch	10.16 mm
Height (without solder pin)	13.71 mm
Solder pin [P]	4 mm
Pin dimensions	0.8 x 1.2 mm

### Dimensions for PCB design

# PCB header - PC 6-16/ 4-GF-10,16 - 1913730

## Technical data

### Dimensions for PCB design

Hole diameter	1.7 mm
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### Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

### General product information

Type of note	Notes on operation
Note	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.
	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.

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °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)

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	8 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	10 N
Withdraw strength per pos. approx.	11 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

### Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R <sub>1</sub>	0.3 mΩ
Insertion/withdrawal cycles	50
Contact resistance R <sub>2</sub>	0.3 mΩ
Impulse withstand voltage at sea level	9.8 kV

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## Technical data

### Durability tests (B)

Insulation resistance, neighboring positions	> 5 MΩ
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### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8
Upper limiting temperature requirements <100 °C	Test passed

### Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	105 °C/168 h
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV

### Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

### Vibration test

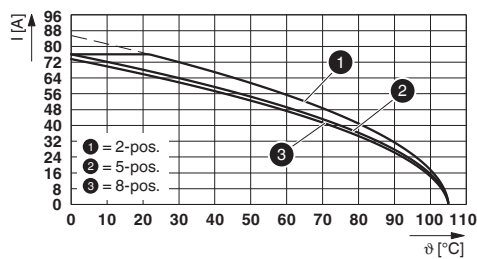
Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

### Environmental Product Compliance

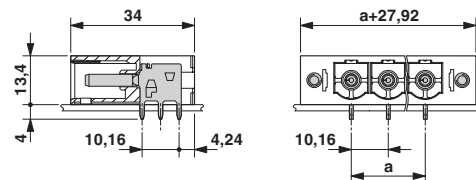
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Diagram



Dimensional drawing



Type: PC 16/...-STF-10,16 with PC 6-16/...-GF-10,16

# PCB header - PC 6-16/ 4-GF-10,16 - 1913730

## Classifications

### eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 9.0	27440402

### ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

### UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

## Approvals

### Approvals

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#### Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

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#### Ex Approvals

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### Approval details

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## Approvals

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CH-10653-M1
Nominal voltage UN		1000 V	
Nominal current IN		76 A	

SEV		<a href="https://www.eurofins.ch/de/">https://www.eurofins.ch/de/</a>	IK-4468-M1
Nominal voltage UN		1000 V	
Nominal current IN		76 A	

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20040202
	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	66 A	66 A	5 A

## Accessories

Accessories

Coding element

Coding profile - CP-HCC 4 - 1600027

Coding profile, color: red, product range: CODIERUNG



## Mounting material

## PCB header - PC 6-16/ 4-GF-10,16 - 1913730

### Accessories

Accessories - DFK-PC 16-SS - 1705449



Screw set for DFK-PC 16... connectors

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### Additional products

Printed-circuit board connector - PC 6/ 4-STF-10,16 - 1913594



PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: PC 6/..-STF, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, Locking clip: - without locking clip, plug-in system: POWER COMBICON 16, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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