

# Printed-circuit board connector - PC 6-16/ 6-G-10,16 BUGY 4CP - 1739211

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PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: blue grey, 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 connections: 6, product range: PC 6-16/..-G, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear three-way pinning, solder pin [P]: 4 mm, Stecksystem: POWER COMBICON 16, Locking: without, type of packaging: packed in cardboard

The figure shows an 8-position version

## Your advantages

- Well-known mounting principle allows worldwide use
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules



## Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356286473

## Technical data

### Item properties

Brief article description	Feed-through header
Plug-in system	POWER COMBICON 16
Type of contact	Male connector
Range of articles	PC 6-16/..-G
Pitch	10.16 mm
Number of positions	6
Mounting type	Wave soldering
Pin layout	Linear three-way pinning
Locking	without
Number of levels	1

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## Technical data

### Item properties

Number of connections	6
Number of potentials	6

### Electrical parameters

Nominal current	76 A
Nom. voltage	1000 V
Rated voltage	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	Electroplated silver
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	blue grey (7031)
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 for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	32 mm
Width [ w ]	64 mm
Height [ h ]	17.7 mm
Pitch	10.16 mm
Height (without solder pin)	13.7 mm
Solder pin [P]	4 mm
Pin dimensions	1 x 1.2 mm

### Dimensions for PCB design

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## 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

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.
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### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °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)	5 mm
Minimum creepage distance value (II/2)	5 mm

### Current carrying capacity / derating curves

Caption	Type: PC 16/...-ST-10,16 with PC 6-16/...-G-10,16
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 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>	0.4 mΩ

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## Technical data

### Durability tests (B)

Insertion/withdrawal cycles	50
Contact resistance R <sub>2</sub>	0.4 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	> 279 GΩ

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8
Conductor cross section	16 mm <sup>2</sup>
Test current	76 A
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

### Standards and Regulations

Connection in acc. with standard	EN-VDE
	CUL

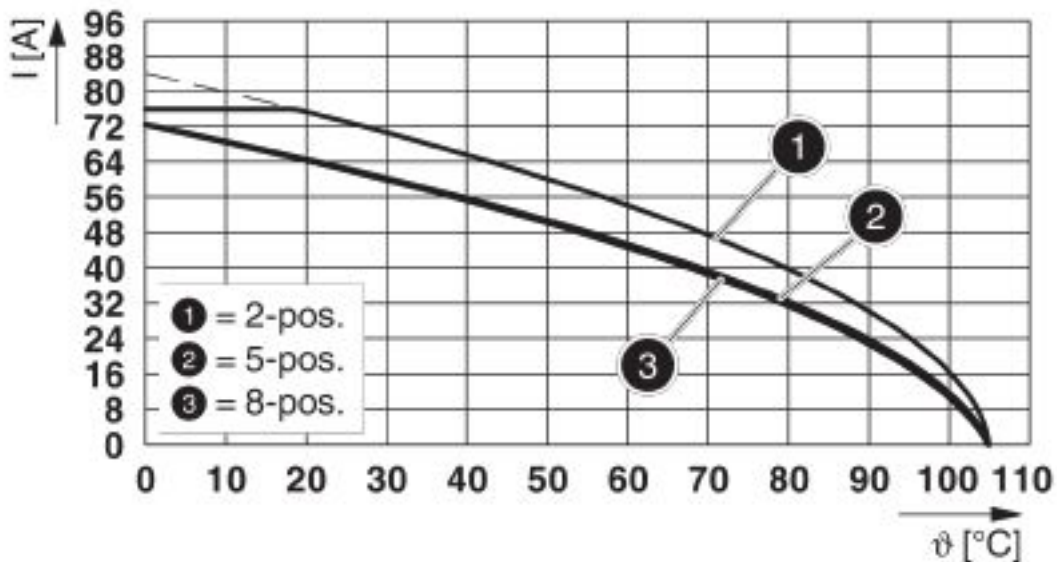
### Environmental Product Compliance

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

## Drawings

# Printed-circuit board connector - PC 6-16/ 6-G-10,16 BUGY 4CP - 1739211

Diagram



Type: PC 16/...-ST-10,16 with PC 6-16/...-G-10,16

## Classifications

eCl@ss

eCl@ss 10.0.1	27440402
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 8.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409

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## Classifications

### UNSPSC

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


#### Approvals


IECEE CB Scheme / SEV / EAC / cULus Recognized

#### Ex Approvals

### Approval details


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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## Approvals

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

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