

Printed-circuit board connector - CCA 2,5/ 4-G P20THRR56 - 1836599

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PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 4, pitch: 5 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, User information and design recommendations for through hole reflow technology can be found under: Downloads



The figure shows a 10-position version of the product

Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- ✓ Closed contour for optimum stability of the plug-in connection



Key Commercial Data

Packing unit	330 pc
Minimum order quantity	330 pc
GTIN	 4 055626 020884
GTIN	4055626020884

Technical data

Item properties

Brief article description	Feed-through header
Plug-in system	CLASSIC COMBICON
Type of contact	Male connector
Range of articles	CCA 2,5/...-G
Pitch	5 mm
Number of positions	4
Mounting type	THR soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1
Number of connections	4

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Technical data

Item properties

Number of potentials	4
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Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage	250 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	400 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 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	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni),
Metal surface soldering area (top layer)	Tin (3 - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

Material data - housing

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

Dimensions for the product

Length [l]	12 mm
Width [w]	22.8 mm
Height [h]	10.57 mm
Pitch	5 mm
Height (without solder pin)	8.57 mm
Solder pin [P]	2 mm
Pin dimensions	1 x 1 mm

Dimensions for PCB design

Hole diameter	1.6 mm
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Packaging information

Type of packaging	56 mm wide tape
Pieces per package	330

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Packaging information

Denomination packing units	Pcs.
[W] tape width	56 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	62.4 mm
Outer packaging type	Transparent-Bag

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.

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)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	4 mm

Current carrying capacity / derating curves

Specification	IEC 61984
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Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 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 ₁	1.1 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	1.2 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 1 TΩ

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Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	24
Conductor cross section	2.5 mm ²
Test current	12 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	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 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
Flammability rating according to UL 94	V0

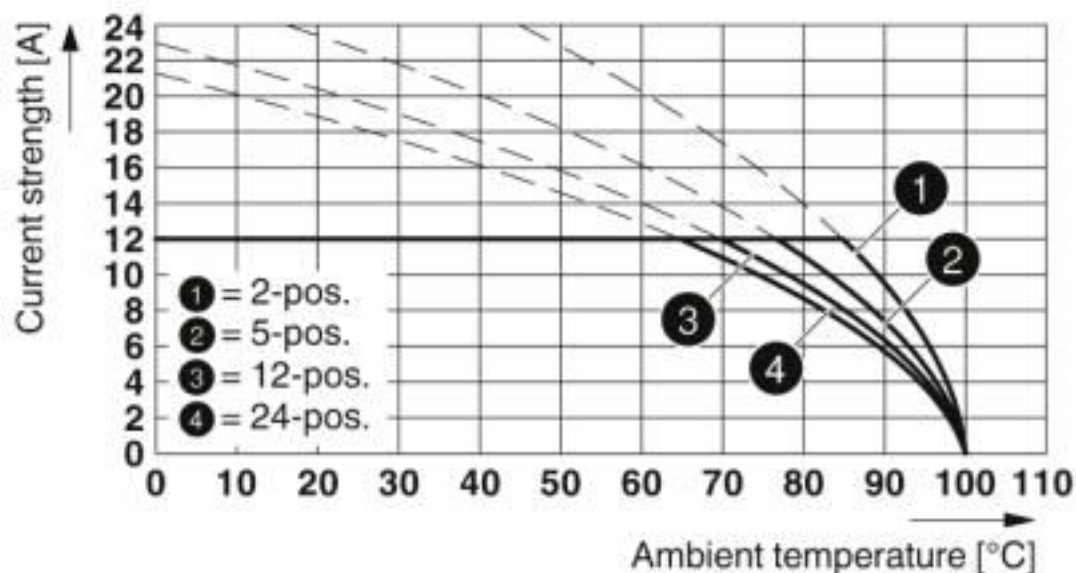
Environmental Product Compliance

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

Drawings

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Diagram



Type: MSTB 2,5/...-ST with CCA 2,5/...-G P20 THR

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 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

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Approvals

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cULus Recognized / EAC

Ex Approvals

Approval details

cULus Recognized  http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-19931011		
	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	16 A	10 A

EAC		B.01687
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Accessories

Accessories

Coding element

Coding section - CR-MSTB - 1734401



Coding section, inserted into the recess in the header or the inverted plug, red insulating material

Coding section - CR-MSTB NAT HT - 1954362



HT coding section, prior to the reflow soldering process it is inserted into the recess on the header, made from high-temperature-resistant beige insulation material

Marker pen

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Accessories

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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