

1701640

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Au, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: CCA 2,5/..-G-RN, pitch: 5.08 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting method: without, type of packaging: 56 mm wide tape

#### Your advantages

- · Gold-plated contacts ensure transfer quality remains stable over the long term
- · 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

#### Commercial data

Item number	1701640
Packing unit	330 pc
Minimum order quantity	330 pc
Note	Made to order (non-returnable)
Product key	AACTBD
GTIN	4046356553254
Weight per piece (including packing)	3.863 g
Weight per piece (excluding packing)	1.974 g
Country of origin	DE



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#### Technical data

#### Product properties

Product type	PCB headers
Product family	CCA 2,5/G-RN
Product line	COMBICON Connectors M
Туре	Component suitable for through hole reflow
Number of positions	5
Pitch	5.08 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Mounting flange	Engagement nose
Pin layout	Linear pinning
Solder pins per potential	1

#### Electrical properties

#### Properties

Nominal current I <sub>N</sub> 12 A Nominal voltage U <sub>N</sub> 320 V
Nominal voltage U <sub>N</sub> 320 V
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	THR soldering / 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	partially gold-plated
Metal surface contact area (top layer)	Gold (0.8 - 1.4 μm Au)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1 - 3 µm Ni)

#### Material data - housing



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

#### 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 h
Pitch	5.08 mm
Width [w]	28.2 mm
Height [h]	11.17 mm
Length [I]	12 mm
Installed height	8.57 mm
Solder pin length [P]	2.6 mm
Pin dimensions	1 x 1 mm
PCB design	
Hole diameter	1.6 mm

#### Electrical tests

#### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	Illa
Comparative tracking index (IEC 60112)	CTI 175
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)	4 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3.2 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



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minimum creepage distance (II/2)	4 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

Dimensional drawing	W, T
Type of packaging	56 mm wide tape
[W] tape width	56 mm
[W2] coil overall dimension	≤ 62.4 mm
[A] coil diameter	≤ 330 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07



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### **Approvals**

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cULus Recognized Approval ID: E60425-19931011					
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Use group B					
Standard	300 V	16 A	-	-	
Use group D					
Standard	300 V	10 A	-	-	
Alternative 1	150 V	15 A	-	-	

VDE approval of drawings Approval ID: 40050079					
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
	320 V	16 A	-	-	



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### Classifications

	ECLASS-13.0	27460201
ETIM		
	ETIM 9.0	EC002637
UNSPSC		
	UNSPSC 21.0	39121400



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### Environmental product compliance

#### EU RoHS

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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