

1811530

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PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Pin, number of potentials: 40, number of rows: 2, number of positions: 20, number of connections: 40, product range: MCDN 1,5/..-G1-RN-THR, pitch: 3.5 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 MC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

### 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
- · Conductor connection on several levels enables higher contact density

#### Commercial data

Item number	1811530		
Packing unit	30 pc		
Minimum order quantity	30 pc		
Sales key	AA02		
Product key	AABTGA		
GTIN	4046356723763		
Weight per piece (including packing)	15.99 g		
Weight per piece (excluding packing)	12.9 g		
Customs tariff number	85366930		
Country of origin	DE		



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### Technical data

## Product properties

Product type	PCB headers	
Product family	MCDN 1,5/G1-RN-THR	
Product line	COMBICON Connectors S	
Number of positions	20	
Pitch	3.5 mm	
Number of connections	40	
Number of rows	2	
Number of potentials	40	
Mounting flange	Threaded flange	
Pin layout	Linear pinning	
Solder pins per potential	1	

### Electrical properties

Nominal current I <sub>N</sub>	8 A
Nominal voltage U <sub>N</sub>	160 V
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	250 V
Rated surge voltage (II/2)	2.5 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	Completely gold-plated
Metal surface contact area (top layer)	Gold (0.8 - 1.4 μm Au)
Metal surface contact area (middle layer)	Nickel (1 - 3 µm Ni)
Metal surface soldering area (top layer)	Gold (0.8 - 1.4 μm Au)
Metal surface soldering area (middle layer)	Nickel (1 - 3 µm Ni)

#### Material data - housing

Material data - nousing			
Color (Housing)	black (9005)		
Insulating material	LCP		
Insulating material group	Illa		



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CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

#### **Dimensions**

Dimensional drawing	P
Pitch	3.5 mm
Width [w]	73.7 mm
Height [h]	15.2 mm
Length [I]	13.3 mm
Installed height	16 mm
Solder pin length [P]	2.6 mm
PCB design	
Hole diameter	1.4 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)	160 V		
Rated surge voltage (III/3)	2.5 kV		
minimum clearance value - non-homogenous field (III/3)	1.5 mm		
minimum creepage distance (III/3)	2.5 mm		
Rated insulation voltage (III/2)	160 V		
Rated surge voltage (III/2)	2.5 kV		
minimum clearance value - non-homogenous field (III/2)	1.5 mm		
minimum creepage distance (III/2)	1.6 mm		
Rated insulation voltage (II/2)	250 V		
Rated surge voltage (II/2)	2.5 kV		
minimum clearance value - non-homogenous field (II/2)	1.5 mm		
minimum creepage distance (II/2)	2.5 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		



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### Packaging specifications

Type of packaging packed in cardboard



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## **Approvals**

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CULus Recognized Approval ID: E60425-20110128					
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Use group B					
	150 V	8 A	-	-	
Use group D					
	150 V	8 A	-	-	

VDE Zeichengenehmigung Approval ID: 40011723				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	160 V	8 A	-	-



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## Classifications

#### **ECLASS**

	ECLASS-11.0	27460201	
	ECLASS-12.0	27460201	
	ECLASS-13.0	27460201	
ETIM			
	ETIM 8.0	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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