

https://www.phoenixcontact.com/us/products/1054546



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PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 6/..-G, pitch: 7. 62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 6, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

#### Your advantages

- · Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- · Easy PCB replacement thanks to plug-in modules
- · Well-known mounting principle allows worldwide use

#### Commercial data

Item number	1054546
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADSDA
GTIN	4055626689531
Weight per piece (including packing)	5.412 g
Weight per piece (excluding packing)	5.69 g
Customs tariff number	85366930
Country of origin	CN



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#### Technical data

#### Product properties

Product line	COMBICON Connectors L
Product type	PCB headers
Product family	PC 6/G
Number of positions	2
Pitch	7.62 mm
Number of connections	2
Number of rows	1
Mounting flange	without
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	3

#### Electrical properties

Nominal current I <sub>N</sub>	41 A
Nominal voltage U <sub>N</sub>	630 V
Degree of pollution	3
Contact resistance	0.5 mΩ
Rated voltage (III/3)	630 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

#### Mounting

Mounting type	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	Tin-plated
Metal surface contact area (top layer)	Tin (2 - 4 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (2 - 4 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

#### Material data - housing

Color (Housing)	green (6021)



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Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
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 <sub>1</sub> n
Pitch	7.62 mm
Width [w]	15.64 mm
Height [h]	16.1 mm
Length [I]	28.2 mm
Installed height	13.5 mm
Solder pin length [P]	2.6 mm
Pin dimensions	1 x 1.2 mm
PCB design	
Hole diameter	1.7 mm

#### Mechanical tests

# Visual inspection Specification

Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed
Resistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed

IEC 60512-1-1:2002-02

#### Polarization and coding

0 10 11	JEO 00510 10 5 0000 00
Specification	IEC 60512-13-5:2006-02
Result	Test passed

#### Contact holder in insert

Specification	IEC 60512-15-1:2008-05



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Contact holder in insert Requirements >20 N	Test passed
Insertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	11 N
Withdraw strength per pos. approx.	10 N

#### Electrical tests

Specification

#### Thermal test | Test group C

Tested number of positions	6
Insulation resistance	
Specification	IEC 60512-3-1:2002-02

> 5 MΩ

IEC 60512-5-1:2002-02

#### Air clearances and creepage distances |

Insulation resistance, neighboring positions

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Specification	IEC 60664-1:2007-04	
Insulating material group	1	
Comparative tracking index (IEC 60112)	CTI 600	
Rated insulation voltage (III/3)	630 V	
Rated surge voltage (III/3)	6 kV	
minimum clearance value - non-homogenous field (III/3)	5.5 mm	
minimum creepage distance (III/3)	8 mm	
Rated insulation voltage (III/2)	630 V	
Rated surge voltage (III/2)	6 kV	
minimum clearance value - non-homogenous field (III/2)	5.5 mm	
minimum creepage distance (III/2)	5.5 mm	
Rated insulation voltage (II/2)	1000 V	
Rated surge voltage (II/2)	6 kV	
minimum clearance value - non-homogenous field (II/2)	5.5 mm	
minimum creepage distance (II/2)	5.5 mm	

#### Environmental and real-life conditions

#### Vibration test

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

#### Durability test



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Type of packaging

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R <sub>1</sub>	0.5 mΩ
Contact resistance R <sub>2</sub>	0.5 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
matic test	ISO 6088:1085.02
Specification	ISO 6988:1985-02
Corrosive stress	$0.2~\mathrm{dm^3SO_2}$ on 300 dm $^3$ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV
nbient conditions	
	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (operation)  Ambient temperature (storage/transport)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (operation)	

packed in cardboard



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### **Approvals**

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cULus Recogniz Approval ID: E60425-				
	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	35 A	-	-
Use group C				
Standard	300 V	35 A	-	-
Use group F				
USR application only	600 V	35 A	-	-
Use group D				
Alternative 1	600 V	5 A	-	-

VDE Zeichengeneh Approval ID: 40050635	nmigung			
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	630 V	41 A	-	-



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### Classifications

UNSPSC 21.0

#### **ECLASS**

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201
ETIM	
ETIM 9.0	EC002637
UNSPSC	

39121400



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### Environmental product compliance

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



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#### Accessories

#### CP-PC RD - Coding profile

1701967

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Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



#### LPC 6/2-ST-7,62 - PCB connector

#### 1716921

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PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: LPC 6/..-ST, pitch: 7.62 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 6, locking: without, mounting: without, type of packaging: packed in cardboard



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#### PC 6/ 2-ST-BUS-7,62 - PCB connector

1044740

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PCB connector, nominal cross section: 16 mm², color: green, nominal current: 32 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 6/..-ST-BUS, pitch: 7.62 mm, connection method: Displacement connection, screw head form: T15 Torx®, conductor/PCB connection direction: 0°, locking clip: - without locking clip, plugin system: COMBICON PC 6, locking: without, mounting: without, type of packaging: packed in cardboard

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