

1102110

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PCB connector, nominal cross section: 1.5 mm², color: light gray, nominal current: 8 A, rated voltage (III/2): 150 V, contact surface: Sn, contact connection type: Socket, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PSPT 1,5/..-ST-3,5, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, locking clip: - Locking clip, plug-in system: PSPT 1,5, locking: without, mounting method: without, type of packaging: packed in cardboard, Color of the spring lever: orange

## Your advantages

- · Time saving push-in connection, tools not required
- · Variable coding, for reliable protection against incorrect connection
- · Push-in technology for quick and easy wiring
- · High packing density with 3.5 mm pitch
- · Quick and easily coded when initially connecting the connector and header
- Intuitive operation due to color-coded actuating push button

#### Commercial data

Item number	1102110
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AC08
Product key	ACHADB
GTIN	4055626961781
Weight per piece (including packing)	3.04 g
Weight per piece (excluding packing)	2.55 g
Customs tariff number	85366990
Country of origin	CN



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## Technical data

## Product properties

Product type	PCB connector
Product family	PSPT 1,5/ST-3,5
Туре	Standard
Number of positions	4
Pitch	3.5 mm
Number of connections	4
Number of rows	1
Number of potentials	4

## Electrical properties

#### **Properties**

•	
Nominal current I <sub>N</sub>	8 A
Nominal voltage U <sub>N</sub>	150 V
Contact resistance	2.02 mΩ
Rated voltage (III/3)	150 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	150 V
Rated voltage (II/2)	250 V

## Connection data

#### Connection technology

Connector system	PSPT 1,5
Nominal cross section	1.5 mm²
Contact connection type	Socket

#### Interlock

Locking type	without
Mounting type	without

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross-section rigid	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm² 1.5 mm²
Conductor cross-section AWG	24 16
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm² 1 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² 0.75 mm²
Stripping length	10 mm

### Material specifications



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#### 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 terminal point (top layer)	Tin (4 - 8 μm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

#### Material data - housing

Color (Housing)	light gray (7035)
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

#### Material data - actuating element

material data detacting commen	
Color (Actuating element)	orange (2003)
Insulating material	PBT
Insulating material group	I I
CTI according to IEC 60112	275
Flammability rating according to UL 94	V0

### Dimensions

Dimensional drawing	h
Pitch	3.5 mm
Width [w]	14.1 mm
Height [h]	14.9 mm
Length [I]	19.6 mm

#### 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.
Safety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use



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	may damage persons and/or property.
	<ul> <li>WARNING: Commission properly functioning products only.</li> <li>The products must be regularly inspected for damage.</li> <li>Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	<ul> <li>WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li> </ul>
	<ul> <li>The item is intended to be an unencapsulated plug for installation in a housing.</li> </ul>
	Operate the connector only when it is fully plugged in.
echanical tests	
Conductor connection	
Specification	IEC 60999-1:1999-11
Result	Test passed
Test for conductor damage and slackening	
Specification	IEC 60999-1:1999-11
Result	Test passed
Repeated connection and disconnection	
Specification	IEC 60999-1:1999-11
Result	Test passed
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N
Insertion and withdrawal forces	
Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	5 N
Resistance of inscriptions	
Specification Specification	IEC 60068-2-70:1995-12
Result	Test passed
	,
Polarization and coding	IFO 60542 42 5-2006 02
Specification	IEC 60512-13-5:2006-02



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Result	Test passed		
Visual inspection			
Specification	IEC 60512-1-1:2002-02		
Result	Test passed		
Dimension check			
Specification	IEC 60512-1-2:2002-02		
Result	Test passed		

### 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)
Acceleration	50 m/s² (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

### Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R <sub>1</sub>	2.02 mΩ
Contact resistance R <sub>2</sub>	2.11 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 TΩ

#### Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	$0.2~\mathrm{dm^3SO_2}$ on 300 $\mathrm{dm^3/40~^\circ C/1}$ cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	1.39 kV

### Ambient conditions

Ambient temperature (operation)	-40 °C 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 55 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

### Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	5

#### Insulation resistance



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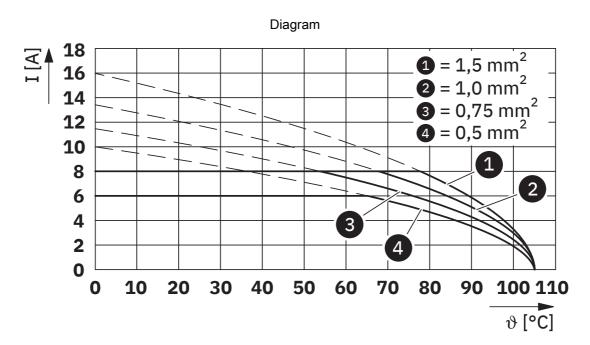
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 1 TΩ
emperature cycles	
•	
Specification	IEC 60999-1:1999-11
Result	Test passed
Air clearances and creepage distances	
Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	150 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)	1.6 mm
Rated insulation voltage (III/2)	150 V
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	0.8 mm
Rated insulation voltage (II/2)	250 V
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.25 mm
ckaging specifications	
Type of packaging	packed in cardboard



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# Drawings



Type: PSPT 1,5/...-ST-3,5 ... with ICC20(25)-H/...L(R)3,5-...



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## **Approvals**

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c <b>F11</b> us	cULus Recognized Approval ID: E60425-20181123				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
В					
Field win	ring	150 V	8 A	24 - 16	-



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# Classifications

### **ECLASS**

	ECLASS-13.0	27460202		
	ECLASS-15.0	27460202		
ΕI	TIM			
	ETIM 9.0	EC002638		
	10000			
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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