

https://www.phoenixcontact.com/us/products/1720796



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PCB headers, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 5/..-GF, pitch: 7.62 mm, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

## Your advantages

- · Well-known mounting principle allows worldwide use
- · Screwable flange for superior mechanical stability
- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies



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## Commercial Data

Item number	1720796
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	A02
Product Key	AADSBB
Catalog Page	Page 537 (C-1-2013)
GTIN	4046356113762
Weight per Piece (including packing)	9.19 g
Weight per Piece (excluding packing)	8.264 g
Customs tariff number	85366930
Country of origin	DE



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## **Technical Data**

### Product properties

Туре	Standard
Product line	COMBICON Connectors L
Product type	PCB headers
Number of positions	2
Pitch	7.62 mm
Number of connections	2
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	2
Pin layout	Linear pinning

### Electrical properties

Nominal current I <sub>N</sub>	41 A
Nominal voltage U <sub>N</sub>	630 V
Pollution degree	3
Contact resistance	0.6 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

### Mounting

Mounting type Wave soldering	Wave soldering
Mounting type	Wave soldering
Flange	
Tightening torque	0.3 Nm 0.7 Nm

### 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	hot-dip tin-plated
Metal surface contact area (top layer)	Tin (4 - 8 μm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

#### Material data - housing

Waterial data Tiodonig	
Housing color	green (6021)
Insulating material	PA
Insulating material group	I



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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

### 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	7.62 mm
Width w	31.34 mm
Height [h]	19.29 mm
Length [I]	14.29 mm
Installed height	14.29 mm
Solder pin length [P]	5 mm
PCB design	
Pin spacing	7.62 mm

### Mechanical tests

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 setpoint/actual value	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	10 mm² / solid / > 90 N
	6 mm² / flexible / > 80 N

Insertion and withdrawal forces



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Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	6 N
Withdraw strength per pos. approx.	5 N
Contact holder in insert	
Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed
Resistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Polarization and coding	
Specification	IEC 60512-13-5:2006-02
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
ectrical tests	
Thermal test   Test group C	IEC 60512-5-1:2002-02
Thermal test   Test group C Specification	IEC 60512-5-1:2002-02
Thermal test   Test group C Specification Tested number of positions	
Thermal test   Test group C Specification Tested number of positions Insulation resistance	12
Thermal test   Test group C Specification Tested number of positions Insulation resistance Specification	
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions	12 IEC 60512-3-1:2002-02
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances	12 IEC 60512-3-1:2002-02 > 5 MΩ
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification	12 IEC 60512-3-1:2002-02 > 5 MΩ IEC 60664-1:2007-04
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group	12  IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)	IEC 60512-3-1:2002-02 > 5 MΩ  IEC 60664-1:2007-04 I CTI 600
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)	IEC 60512-3-1:2002-02 > 5 MΩ  IEC 60664-1:2007-04 I CTI 600 630 V
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)  Rated surge voltage (III/3)	IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I  CTI 600
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)  Rated surge voltage (III/3)  minimum clearance value - non-homogenous field (III/3)	IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I  CTI 600  630 V  6 kV
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)  Rated surge voltage (III/3)  minimum clearance value - non-homogenous field (III/3)  minimum creepage distance (III/3)	IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I  CTI 600  630 V  6 kV  5.5 mm
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)  Rated surge voltage (III/3)  minimum clearance value - non-homogenous field (III/3)	IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I  CTI 600  630 V  6 kV  5.5 mm  8 mm
Thermal test   Test group C  Specification  Tested number of positions  Insulation resistance  Specification  Insulation resistance, neighboring positions  Air clearances and creepage distances    Specification  Insulating material group  Comparative tracking index (IEC 60112)  Rated insulation voltage (III/3)  Rated surge voltage (III/3)  minimum clearance value - non-homogenous field (III/3)  minimum creepage distance (III/3)  Rated insulation voltage (III/2)	IEC 60512-3-1:2002-02  > 5 MΩ  IEC 60664-1:2007-04  I  CTI 600  630 V  6 kV  5.5 mm  8 mm  630 V



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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

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

### Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R <sub>1</sub>	$0.6~\text{m}\Omega$
Contact resistance R <sub>2</sub>	0.7 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ

### Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	$0.2~\mathrm{dm}^3~\mathrm{SO}_2~\mathrm{on}~300~\mathrm{dm}^3/40~^\circ\mathrm{C}/1~\mathrm{cycle}$
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV

#### 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

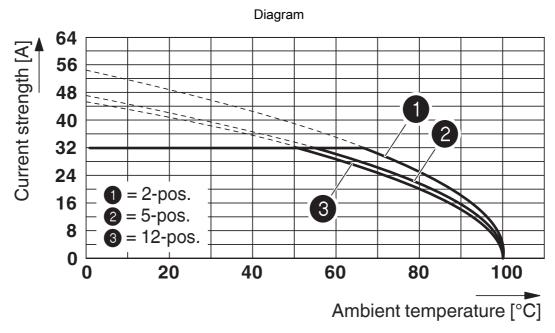
Type of packaging packed in cardboard
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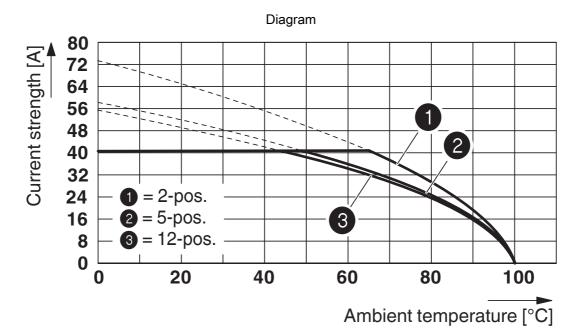
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## **Drawings**



Type: PC 5/...-STF1-7,62 with PC 5/...-GF-7,62 Conductor cross section: 6 mm<sup>2</sup>

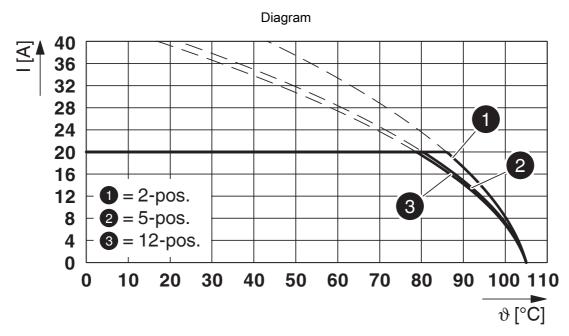


Type: PC 5/...-STF1-7,62 with PC 5/...-GF-7,62 Conductor cross section: 10 mm<sup>2</sup>

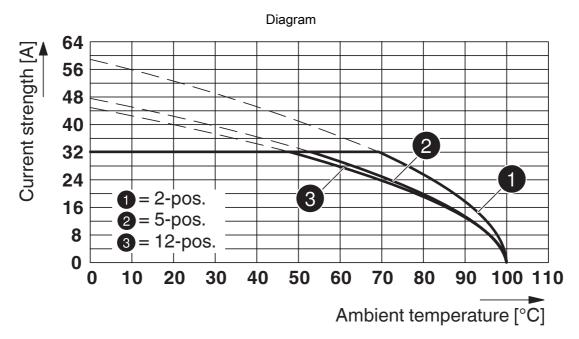
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Type: PC 4/...-STF-7,62 with PC 5/...-GF-7,62



Type: TSPC 5/...-STF-7,62 with PC 5/...-GF-7,62



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## Approvals



EAC

Approval ID: B.01687

CULus Recognized Approval ID: E60425-19920722				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	300 V	41 A	-	-
Use group C				
	150 V	41 A	-	-
Use group F				
	600 V	41 A	-	-
Use group D				
	300 V	10 A	-	-



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## Classifications

UNSPSC 21.0

### **ECLASS**

	ECLASS-9.0	27440402
	ECLASS-10.0.1	27440402
	ECLASS-11.0	27460201
ET	М	
	ETIM 8.0	EC002637
UN	SPSC	

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

#### PCB connector

PCB connector - TSPC 5/ 2-STF-7,62 - 1728206 https://www.phoenixcontact.com/us/products/1728206



PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TSPC 5/..-STF, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - PC 5/ 2-STF1-7,62 - 1777833 https://www.phoenixcontact.com/us/products/1777833



PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 5/..-STF1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: Z1L Slotted Pozidriv, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - SPC 5/ 2-STF-7,62 - 1996126 https://www.phoenixcontact.com/us/products/1996126



PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: SPC 5/..-STF, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### Marker card

Marker card - SK 7,62/3,8:FORTL.ZAHLEN - 0804549 https://www.phoenixcontact.com/us/products/0804549



Marker card, white, labeled, horizontal: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 91  $\dots$  100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm



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#### Marker card

Marker card - SK 3,8 REEL P7,62 WH CUS - 0825128 https://www.phoenixcontact.com/us/products/0825128



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm

#### Marker card

Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906 https://www.phoenixcontact.com/us/products/0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440



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#### Marker strip

Marker strip - SK 3,8 WH:REEL - 0805218 https://www.phoenixcontact.com/us/products/0805218



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 90000 mm, lettering field size: continuous x 3.8 mm, Number of individual labels: 210000

### Coding profile

Coding profile - CP-PC RD - 1701967

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



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