

https://www.phoenixcontact.com/us/products/1720466



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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, 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/..-G, 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: without, mounting: without, type of packaging: packed in cardboard

### Your advantages

- · Well-known mounting principle allows worldwide use
- · Standard header also suitable for connectors with automatically locking Click and Lock system
- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies

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# **Commercial Data**

Item number	1720466
Packing unit	1 pc
Minimum order quantity	50 рс
Sales Key	A02
Product Key	AADSBA
Catalog Page	Page 536 (C-1-2013)
GTIN	4046356111355
Weight per Piece (including packing)	4.66 g
Weight per Piece (excluding packing)	4.1 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	without
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	0.8 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

### 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

Housing color	green (6021)
Insulating material	PA
Insulating material group	1
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

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Temperature for the ball pressure test according to EN 60695- 125 °C 10-2	Glow wire ignition temperature GWIT according to EN 60695-2- 13	775
		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	De h
Pitch	7.62 mm
	18.04 mm
Height h	19.29 mm
Length I	29.25 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	
Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	8 N



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Withdraw strength per pos. approx.	6 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

### Electrical tests

Thermal test   Test group C	
Specification	IEC 60512-5-1:2002-02
Tested number of positions	12
Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ
Temperature cycles	
Specification	IEC 60999-1:1999-11
Result	Test passed
Air clearances and creepage distances	
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

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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

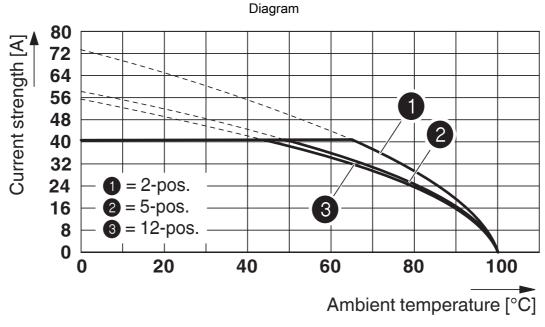
Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h
urability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R <sub>1</sub>	0.8 mΩ
Contact resistance R <sub>2</sub>	0.8 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ
limatic test	
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV
mbient conditions	
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
	30 % 70 %
Relative humidity (storage/transport)	

Type of packaging	packed in cardboard
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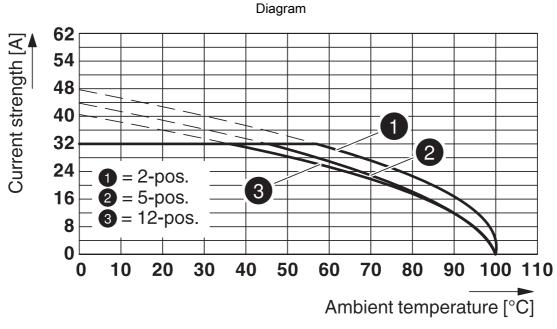
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# Drawings



Derating curve for: PC 5/...-GT1-7,62 with PC 5/...-G-7,62 Conductor cross section: 10  $\rm mm^2$ 



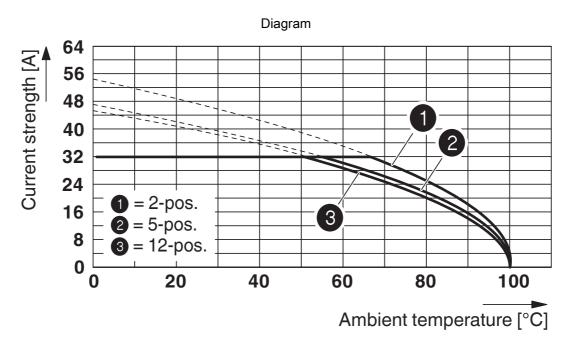
Derating curve for: SPC 5/...-ST-7,62 with PC 5/...-G-7,62

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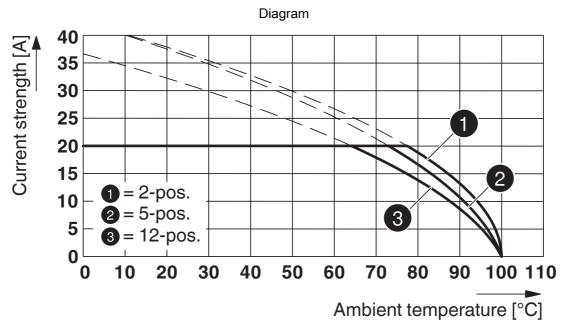


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Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62 Conductor cross section: 6  $\rm mm^2$ 

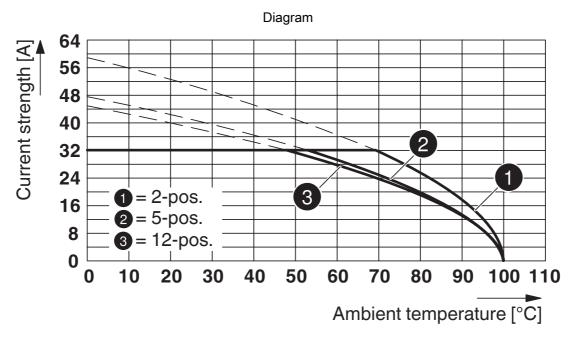


Type: PC 4/...-ST-7,62 with PC 5/...-G-7,62



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Type: TSPC 5/...-ST-7,62 with PC 5/...-G-7,62



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# Approvals

EAC Approval ID: B.01687

CULus Recogni 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				
	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

### ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201

### ETIM

	ETIM 8.0	EC002637
UNSPSC		
	UNSPSC 21.0	39121400





# **Environmental Product Compliance**

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





### Accessories

### Accessories

Accessories - POWERCOMBICON PCB-SHIELD - 1968387 https://www.phoenixcontact.com/us/products/1968387



Accessories, contact surface: Tin, product range: EMV-SCHIRMUNG

### PCB connector

PCB connector - TSPC 5/ 2-ST-7,62 - 1728455 https://www.phoenixcontact.com/us/products/1728455



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/..-ST, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: without, type of packaging: packed in cardboard





PCB connector

PCB connector - PC 5/ 2-ST1-7,62 - 1777723 https://www.phoenixcontact.com/us/products/1777723



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/..-ST1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Philipps recess with slotted Torx, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: without, type of packaging: packed in cardboard

### PCB connector

PCB connector - SPC 5/ 2-ST-7,62 - 1996016 https://www.phoenixcontact.com/us/products/1996016



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/..-ST, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: without, type of packaging: packed in cardboard



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PCB connector

PCB connector - TSPC 5/ 2-STCL-7,62 - 1765418 https://www.phoenixcontact.com/us/products/1765418



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/.-STCL, 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: Clip locking, mounting: Click & Lock latching slide, type of packaging: packed in cardboard

#### PCB connector

PCB connector - SPC 5/ 2-STCL-7,62 - 1718481 https://www.phoenixcontact.com/us/products/1718481



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/..-STCL, 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: Clip locking, mounting: Click & Lock latching slide, type of packaging: packed in cardboard



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PCB connector

PCB connector - PC 5/ 2-STCL1-7,62 - 1778065 https://www.phoenixcontact.com/us/products/1778065



PCB connector, nominal cross section: 6 mm<sup>2</sup>, 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/..-STCL1, 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: Clip locking, mounting: Click & Lock latching slide, 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 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size:  $7.62 \times 3.8$  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





PCB header

PCB header - IPC 5/ 2-G-7,62 - 1708381 https://www.phoenixcontact.com/us/products/1708381



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, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPC 5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard

### PCB header

PCB header - IPC 5/ 2-GU-7,62 - 1708608 https://www.phoenixcontact.com/us/products/1708608



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, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPC 5/..-GU, 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: reversed, locking: without, mounting: without, type of packaging: packed in cardboard





PCB header

PCB header - IPCV 5/ 2-G-7,62 - 1708828 https://www.phoenixcontact.com/us/products/1708828



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, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPCV 5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard

### 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



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Coding profile

Coding profile - CP-PC RD - 1701967 https://www.phoenixcontact.com/us/products/1701967

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



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