

https://www.phoenixcontact.com/in/products/1720563



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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: Pin, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: PC 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, 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

#### Commercial Data

Item number	1720563
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AAD
Product Key	AADSBA
Catalog Page	Page 536 (C-1-2013)
GTIN	4046356113755
Weight per Piece (including packing)	25.244 g
Weight per Piece (excluding packing)	24.05 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
Product family	PC 5/G
Number of positions	12
Pitch	7.62 mm
Number of connections	12
Number of rows	1
Mounting flange	without
Number of potentials	12
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	0.8 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
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	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

Color (Housing)	green (6021)
Insulating material	PA



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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	
Color ()	0

### 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
Pitch	7.62 mm
Width [w]	94.24 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

setpoint/actual value

Test for conductor damage and slackening

Conductor cross section/conductor type/tractive force

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

 $0.2 \text{ mm}^2 / \text{solid} / > 10 \text{ N}$ 

 $0.2 \text{ mm}^2$  / flexible / > 10 N



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	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
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
ectrical tests	
The area of Acad L Took area up C	
Thermal test   Test group C Specification	IEC 60512-5-1:2002-02
Tested number of positions	12
	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	l l
Insulating material group  Comparative tracking index (IEC 60112)	T CTI 600



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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

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

#### Climatic test

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

#### 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

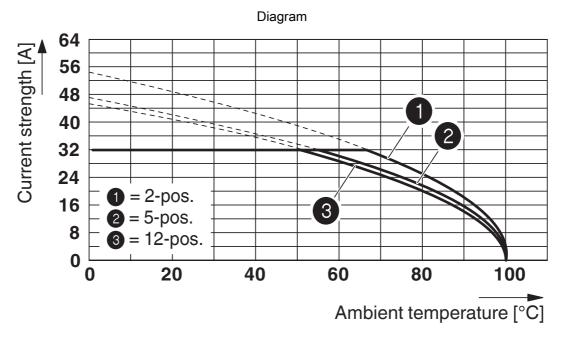
Type of packaging	packed in cardboard
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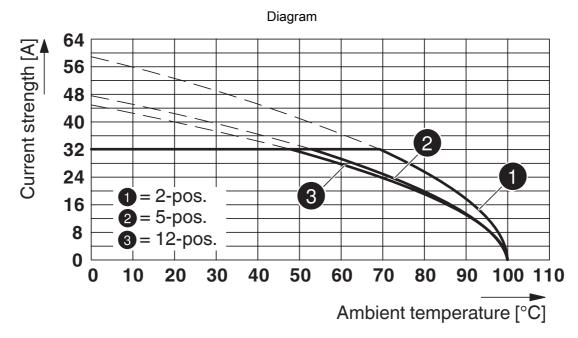
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### **Drawings**



Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62 Conductor cross section: 6 mm<sup>2</sup>

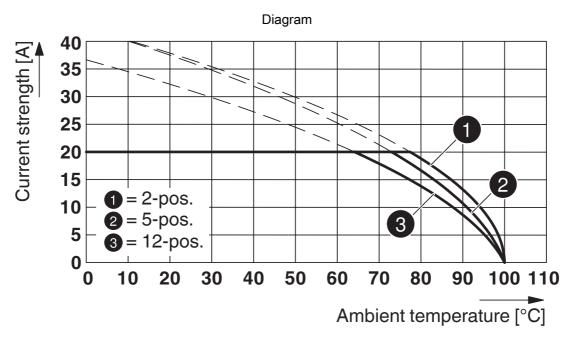


Type: TSPC 5/...-ST-7,62 with PC 5/...-G-7,62

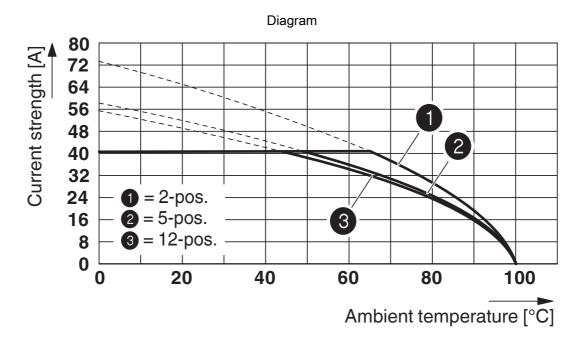


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Type: PC 4/...-ST-7,62 with PC 5/...-G-7,62



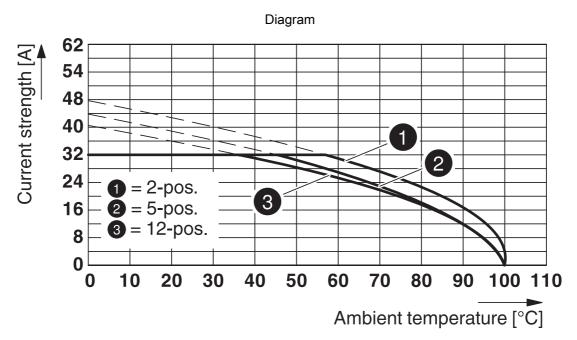
Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62

Conductor cross section: 10 mm<sup>2</sup>



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



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### Approvals

FAT

EAC

Approval ID: B.01687

e <b>911</b> us	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>
		300 V	41 A	-	-
		150 V	41 A	-	-
		600 V	5 A	-	-

UL 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>
		600 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 8.0	EC002637
LINEDCO		
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



### POWERCOMBICON PCB-SHIELD - Accessories

1968387

https://www.phoenixcontact.com/in/products/1968387



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



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#### SK 7,62/3,8:FORTL.ZAHLEN - Marker card

#### 0804549

https://www.phoenixcontact.com/in/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

#### SK 3,8 REEL P7,62 WH CUS - Marker card

#### 0825128

https://www.phoenixcontact.com/in/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



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#### SK U/3,8 WH:UNBEDRUCKT - Marker card

#### 0803906

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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

#### SK 3,8 WH:REEL - Marker strip

#### 0805218

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Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), 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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#### TSPC 5/12-ST-7,62 - PCB connector

1728552

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 24, 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

#### PC 5/12-ST1-7,62 - PCB connector

1777820

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, 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

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#### SPC 5/12-ST-7,62 - PCB connector

1996113

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, 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

#### TSPC 5/12-STCL-7,62 - PCB connector

1765515

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 24, 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

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#### SPC 5/12-STCL-7,62 - PCB connector

1718588

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, 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

#### PC 5/12-STCL1-7,62 - PCB connector

1778162

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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, type of contact: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: PC 5/..-STCL1, 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: 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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IPC 5/12-G-7,62 - PCB header

1708488

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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: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IPC 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, 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

IPC 5/12-GU-7,62 - PCB header

1708705

https://www.phoenixcontact.com/in/products/1708705



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: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IPC 5/..-GU, pitch: 7.62 mm, mounting: Wave soldering, 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

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IPCV 5/12-G-7,62 - PCB header

1708925

https://www.phoenixcontact.com/in/products/1708925



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: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IPCV 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, 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

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PHOENIX CONTACT (I) Pvt. Ltd. A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420 info@phoenixcontact.co.in