PC 5/ 8-G-7,62 - PCB header

1720521

https://www.phoenixcontact.com/us/products/1720521

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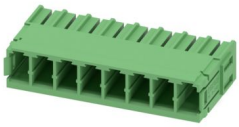


PCB headers, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PC 5/..-G, pitch: 7.62 mm, mounting: 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	1720521
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADSBA
Catalog page	Page 536 (C-1-2013)
GTIN	4046356113717
Weight per piece (including packing)	17.064 g
Weight per piece (excluding packing)	16.102 g
Customs tariff number	85366930
Country of origin	DE

Technical data

Product properties

Product type	PCB headers
Product family	PC 5/..-G
Product line	COMBICON Connectors L
Type	Standard
Number of positions	8
Pitch	7.62 mm
Number of connections	8
Number of rows	1
Number of potentials	8
Mounting flange	without
Pin layout	Linear pinning
Solder pins per potential	3

Electrical properties

Nominal current I_N	41 A
Nominal voltage U_N	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

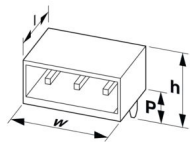
Color (Housing)	green (6021)
Insulating material	PA

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

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	
Pitch	7.62 mm
Width [w]	63.76 mm
Height [h]	19.29 mm
Length [l]	29.25 mm
Installed height	14.29 mm
Solder pin length [P]	5 mm
Pin dimensions	0.8 x 1 mm

PCB design

Pin spacing	7.62 mm
Hole diameter	1.3 mm

Mechanical tests

Visual inspection

Specification	IEC 60512-1-1:2002-02
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

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

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

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

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)	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)
Acceleration	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_1	0.8 mΩ
Contact resistance R_2	0.8 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV

Ambient conditions

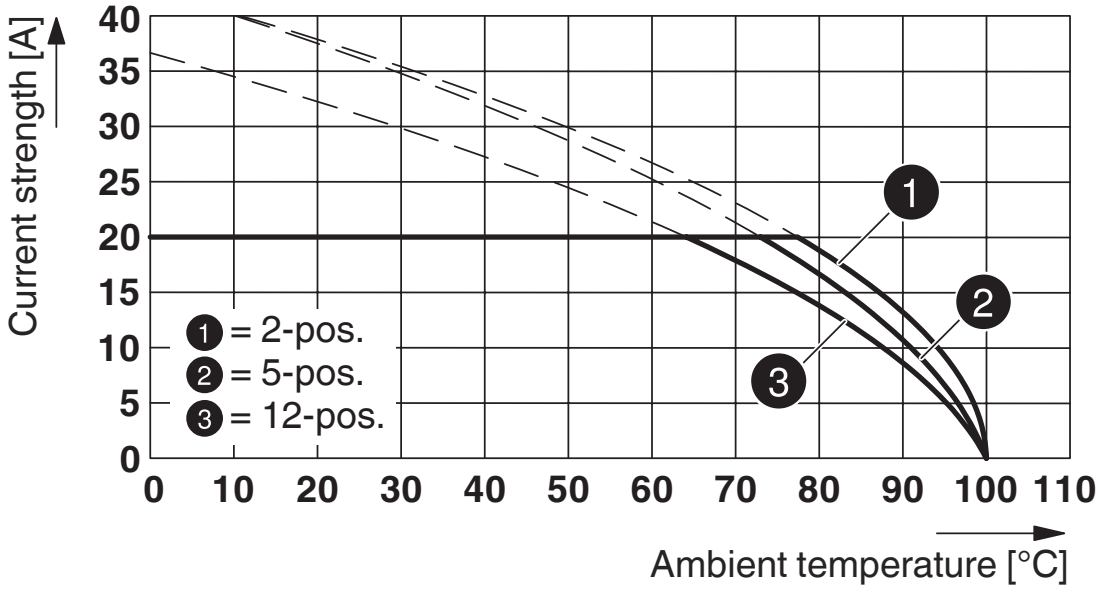
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard

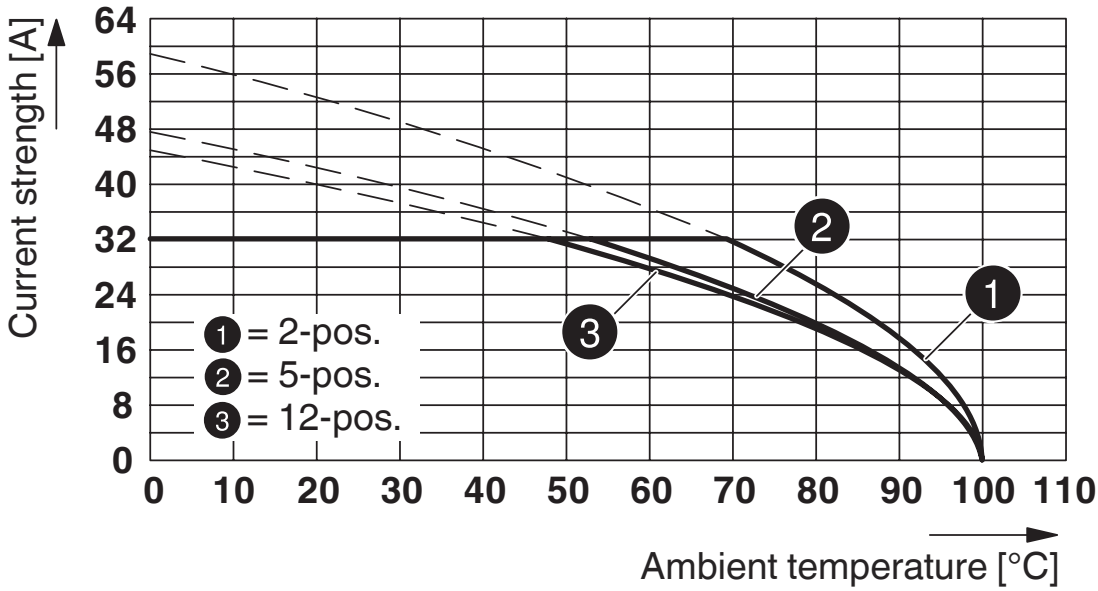
Drawings

Diagram



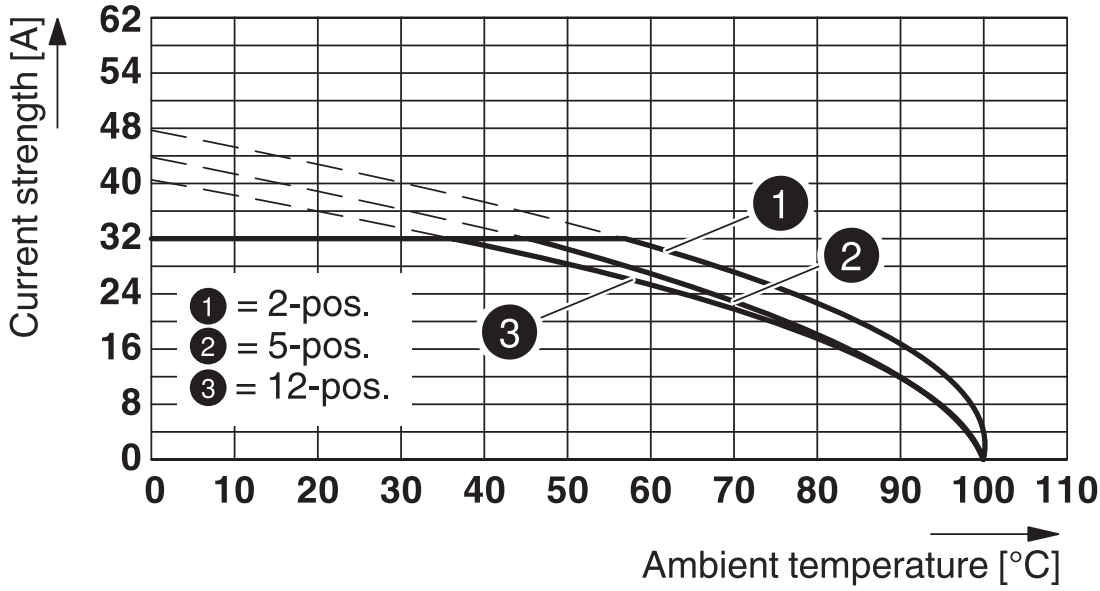
Type: PC 4/...-ST-7,62 with PC 5/...-G-7,62

Diagram



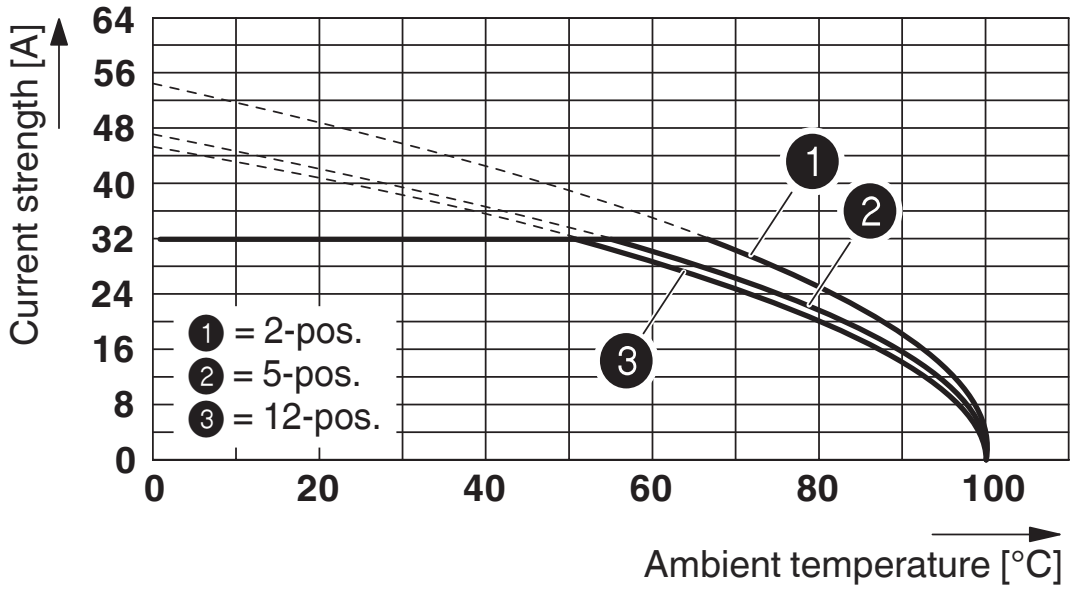
Type: TSPC 5/...-ST-7,62 with PC 5/...-G-7,62

Diagram



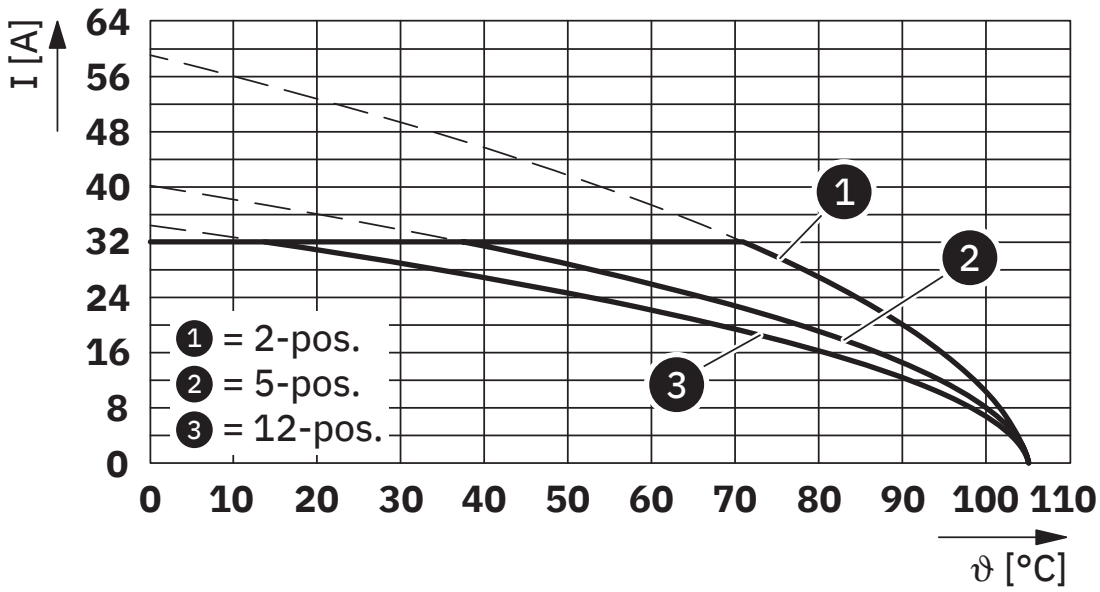
Derating curve for: SPC 5/...-ST-7,62 with PC 5/...-G-7,62

Diagram



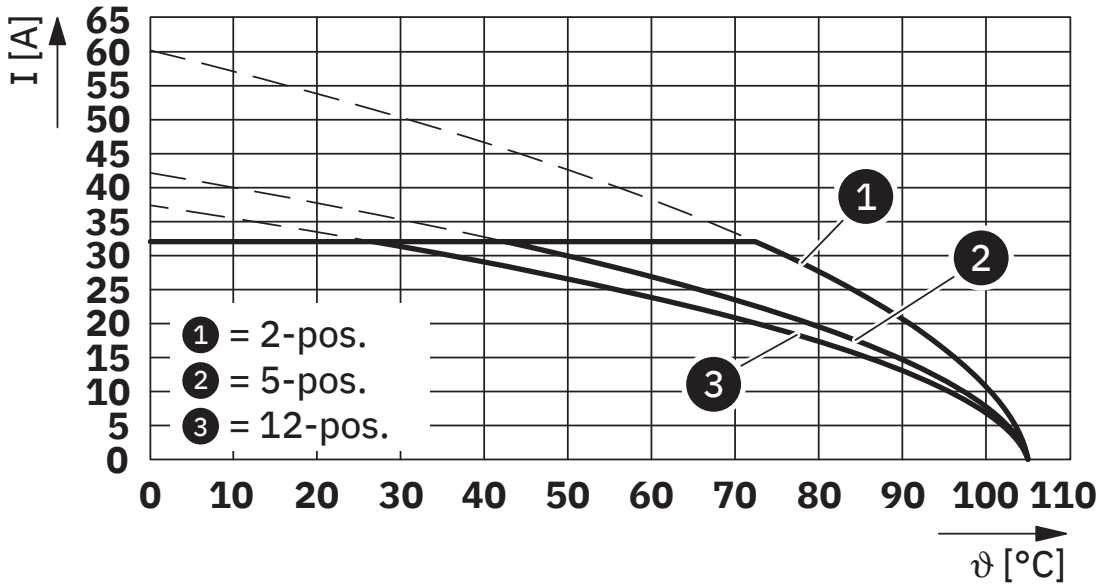
Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross section: 6 mm^2

Diagram



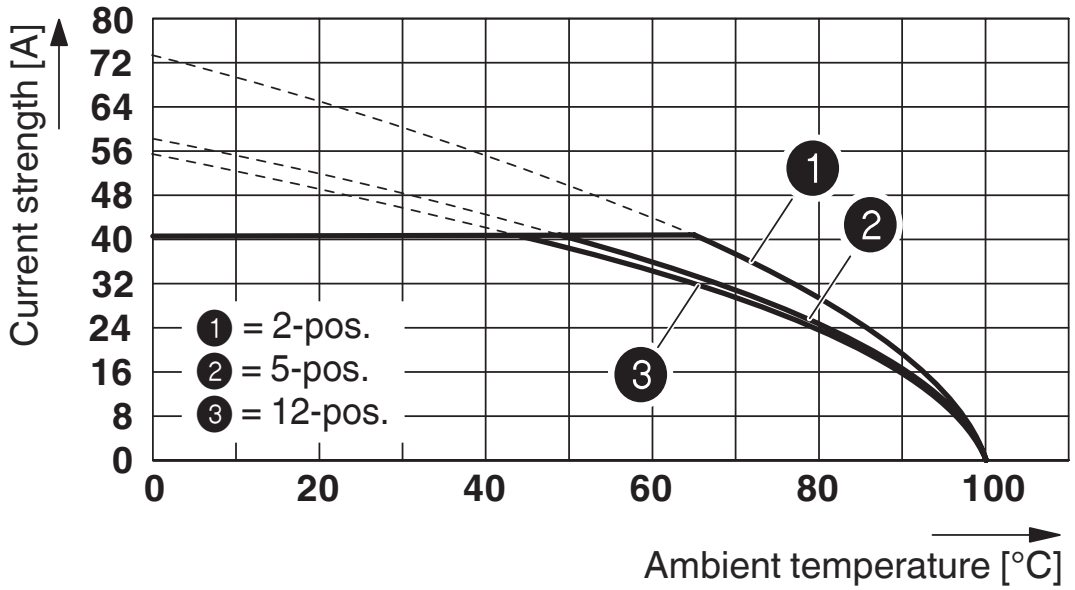
Type: IPC 5/...-G-7,62 with PC 5/...-G-7,62

Diagram



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

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross section: 10 mm^2

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1720521

cULus Recognized
Approval ID: E60425-19920722

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	41 A	-	-
Use group C				
	150 V	41 A	-	-
Use group D				
	600 V	5 A	-	-

UL Recognized
Approval ID: E60425-19920722

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group F				
	600 V	41 A	-	-

Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

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%

Accessories

CP-PC RD - Coding profile

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

POWERCOMBICON PCB-SHIELD - Accessories

1968387

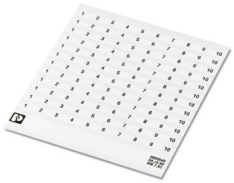
https://www.phoenixcontact.com/us/products/1968387

Shroud, contact surface: Tin, product range: EMC shielding

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

0804549

https://www.phoenixcontact.com/us/products/0804549

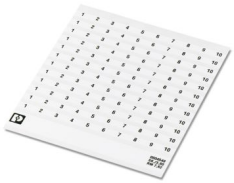


Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

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

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

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

0803906

https://www.phoenixcontact.com/us/products/0803906

Marker card, Din A4, 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

https://www.phoenixcontact.com/us/products/0805218

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, lettering field size: continuous x 3.8 mm, Number of individual labels: 12

PC 5/ 8-G-7,62 - PCB header

1720521

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TSPC 5/ 8-ST-7,62 - PCB connector

1728510

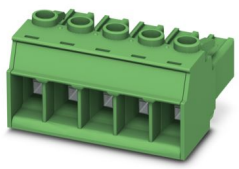
https://www.phoenixcontact.com/us/products/1728510

PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 16, 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/ 8-ST1-7,62 - PCB connector

1777781

https://www.phoenixcontact.com/us/products/1777781



PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PC 5/..-ST1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Slotted Phillips recess, 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/ 8-G-7,62 - PCB header

1720521

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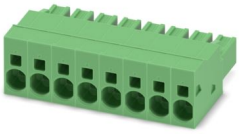
SPC 5/ 8-ST-7,62 - PCB connector

1996074

https://www.phoenixcontact.com/us/products/1996074

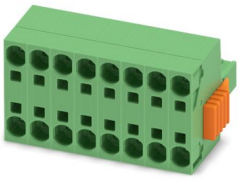


PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: SPC 5/..-ST, pitch: 7.62 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/ 8-STCL-7,62 - PCB connector

1765476

https://www.phoenixcontact.com/us/products/1765476



PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 16, 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

PC 5/ 8-G-7,62 - PCB header

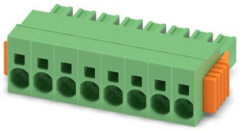
1720521

https://www.phoenixcontact.com/us/products/1720521

SPC 5/ 8-STCL-7,62 - PCB connector

1718546

https://www.phoenixcontact.com/us/products/1718546

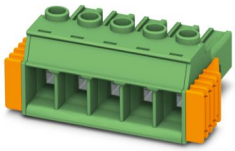


PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: SPC 5/..-STCL, pitch: 7.62 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/ 8-STCL1-7,62 - PCB connector

1778120

https://www.phoenixcontact.com/us/products/1778120



PCB connector, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PC 5/..-STCL1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Slotted Phillips recess, 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

IPC 5/ 8-G-7,62 - PCB header

1708446

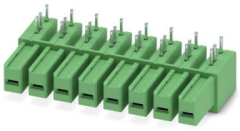
https://www.phoenixcontact.com/us/products/1708446

PCB headers, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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/ 8-GU-7,62 - PCB header

1708666

https://www.phoenixcontact.com/us/products/1708666



PCB headers, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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

PC 5/ 8-G-7,62 - PCB header

1720521

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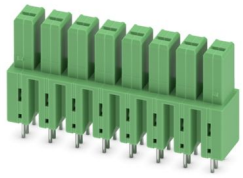
IPCV 5/ 8-G-7,62 - PCB header

1708886

https://www.phoenixcontact.com/us/products/1708886



PCB headers, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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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