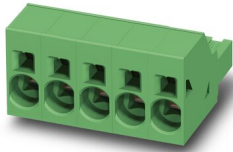


# PCB connector - SPC 16/ 2-ST-10,16

1711268

<https://www.phoenixcontact.com/de/produkte/1711268>

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PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: SPC 16/..-ST, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- Optimized for tight installation situations: operation and conductor connection from one direction

# PCB connector - SPC 16/ 2-ST-10,16



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## Commercial Data

Item number	1711268
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AAEFAA
Catalog Page	Page 562 (C-1-2013)
GTIN	4046356080842
Weight per Piece (including packing)	16,68 g
Weight per Piece (excluding packing)	15,863 g
Customs tariff number	85366990
Country of origin	IN

## Technical Data

### Product properties

Type	Standard
Product line	COMBICON Connectors XL
Product type	PCB plug
Number of positions	2
Pitch	10.16 mm
Number of connections	2
Number of rows	1
Mounting flange	without
Number of potentials	2

### Electrical properties

Nominal current $I_N$	76 A
Nominal voltage $U_N$	1000 V
Pollution degree	3
Contact resistance	0.5 mΩ
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

### Connection data

#### Connection technology

Type	Standard
Connector system	COMBICON PC 16
Nominal cross section	16 mm <sup>2</sup>
Type of contact	Female connector

#### Interlock

Locking type	without
Mounting flange	without

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section solid	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section flexible	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	18 ... 4
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm <sup>2</sup> ... 10 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN	0.75 mm <sup>2</sup> ... 4 mm <sup>2</sup>

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ferrule with plastic sleeve	
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	18 mm

## Material specifications

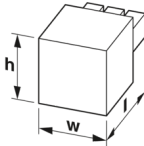
### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Silver-plated strip
Metal surface terminal point (top layer)	Silver (4 - 8 $\mu\text{m}$ Ag)
Metal surface contact area (top layer)	Silver (4 - 8 $\mu\text{m}$ Ag)

### Material data - housing

Housing color	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

## Dimensions

Dimensional drawing	
Width	20.32 mm
Height	25.1 mm
Installed height	25.1 mm
Length	44.5 mm
Pitch	10.16 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.
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## Mechanical tests

### Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
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# PCB connector - SPC 16/ 2-ST-10,16



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Result	Test passed
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## 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	0.75 mm <sup>2</sup> / solid / > 30 N
	0.75 mm <sup>2</sup> / flexible / > 30 N
	16 mm <sup>2</sup> / solid / > 100 N
	16 mm <sup>2</sup> / flexible / > 100 N

## Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N

## 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

## 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 - 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	9.8 kV

# PCB connector - SPC 16/ 2-ST-10,16



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Contact resistance R <sub>1</sub>	0.5 mΩ
Contact resistance R <sub>2</sub>	0.5 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ

## Climatic 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	4.26 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

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	9

### 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	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 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

# PCB connector - SPC 16/ 2-ST-10,16



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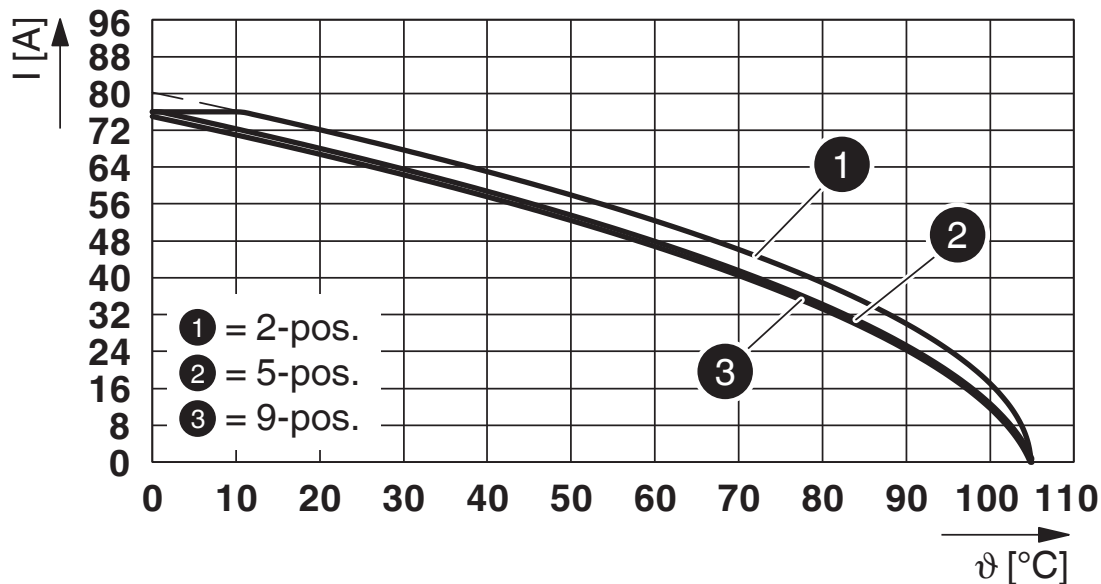
<https://www.phoenixcontact.com/de/produkte/1711268>

## Packaging specifications

Type of packaging
packed in cardboard

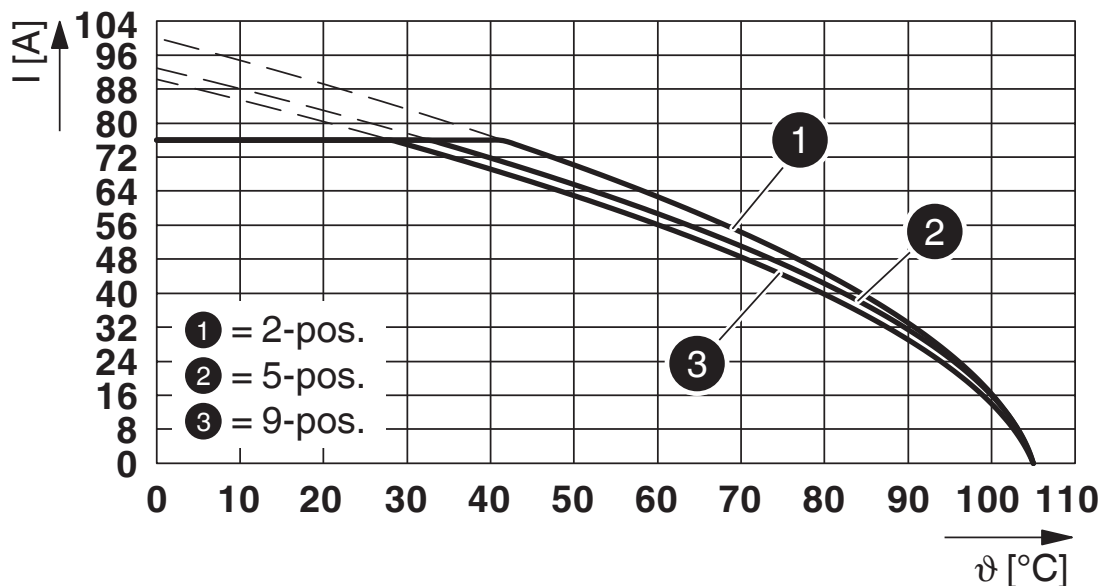
Drawings

Diagram



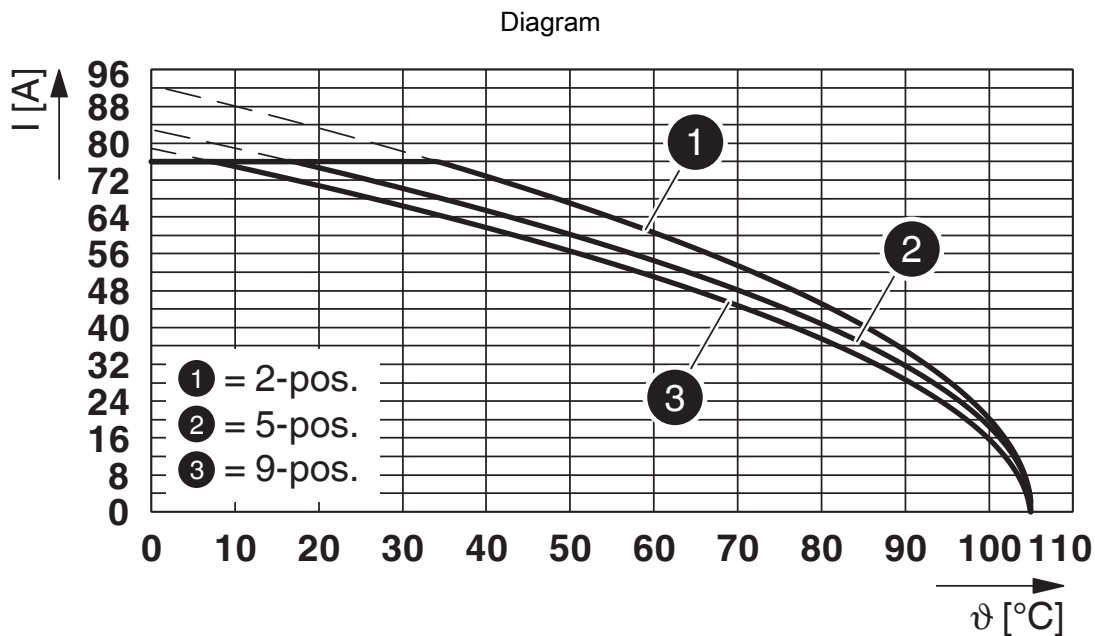
Type: SPC 16/...-ST-10,16 with PCV 6-16/...-G-10,16

Diagram

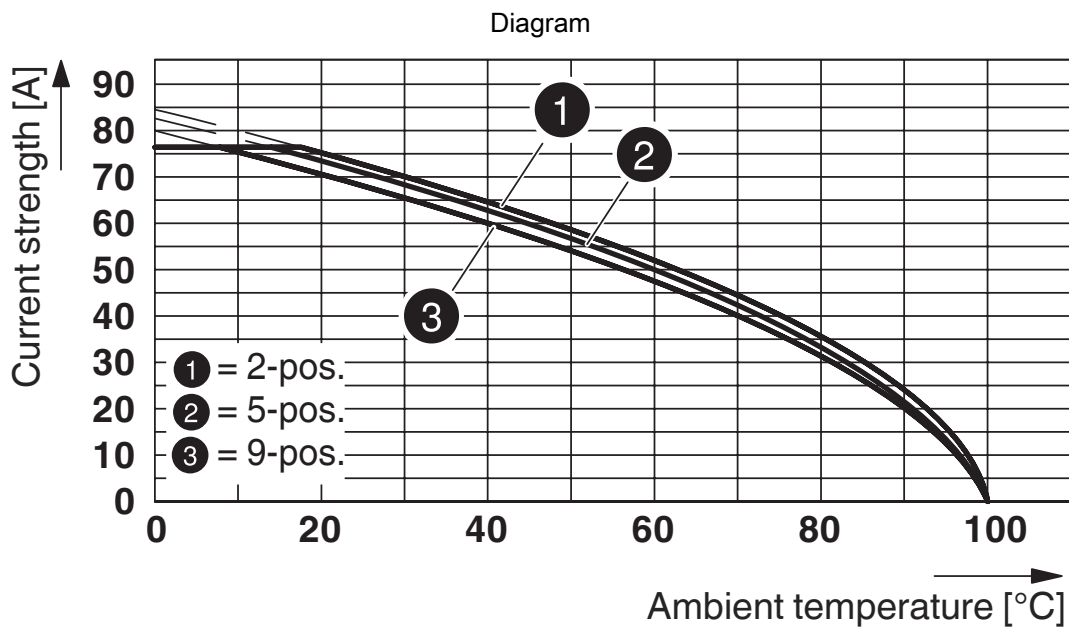


Type: SPC 16/...-ST-10,16 with IPC 16/...-ST-10,16





Type: SPC 16/...-ST-10,16 with PCV 6-16/...-G1-10,16



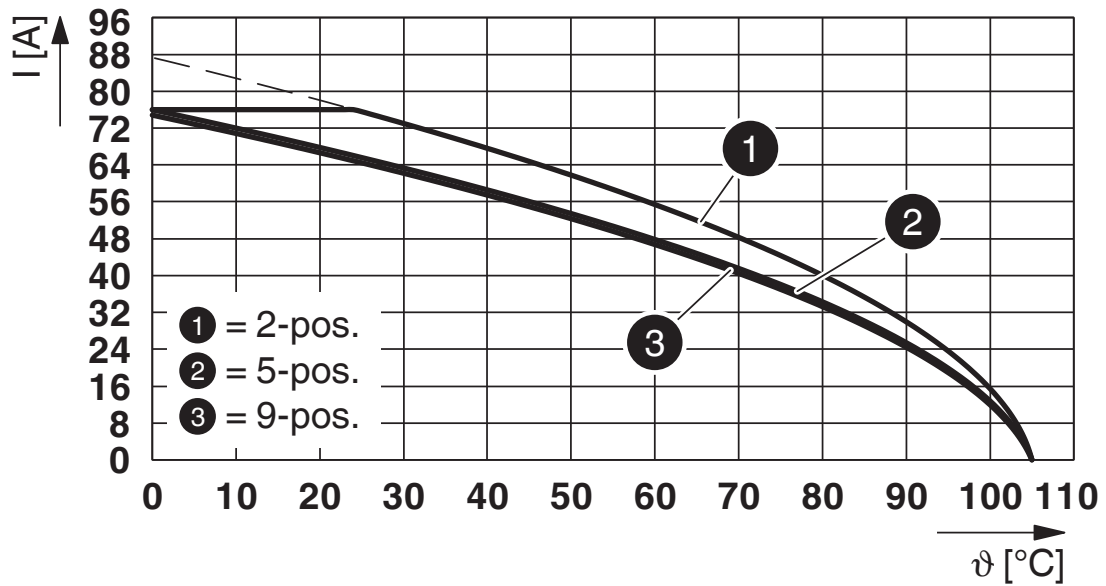
Type: SPC 16/...-ST(F)-10,16 with DFK-PC 16/...-ST(F)-10,16

# PCB connector - SPC 16/ 2-ST-10,16

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<https://www.phoenixcontact.com/de/produkte/1711268>

Diagram



Type: SPC 16/...-ST-10,16 with PC 6-16/...-G1-10,16

# PCB connector - SPC 16/ 2-ST-10,16



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## Approvals



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-20040202

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	600 V	66 A	20 - 4	-
Use group C				
	600 V	66 A	20 - 4	-

# PCB connector - SPC 16/ 2-ST-10,16



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## Classifications

### ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	27460202

### ETIM

ETIM 8.0	EC002638
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### UNSPSC

UNSPSC 21.0	
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# PCB connector - SPC 16/ 2-ST-10,16



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## Environmental Product Compliance

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

# PCB connector - SPC 16/ 2-ST-10,16

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## Accessories

### PCB connector

PCB connector - IPC 16/ 2-ST-10,16 - 1969373

<https://www.phoenixcontact.com/de/produkte/1969373>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPC 16/..-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

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### Screwdriver

Screwdriver - SZF 2-0,8X4,0 - 1204520

<https://www.phoenixcontact.com/de/produkte/1204520>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

# PCB connector - SPC 16/ 2-ST-10,16

1711268

<https://www.phoenixcontact.com/de/produkte/1711268>

## Feed-through header

Feed-through header - DFK-PC 6-16/ 2-G-10,16 - 1701456

<https://www.phoenixcontact.com/de/produkte/1701456>

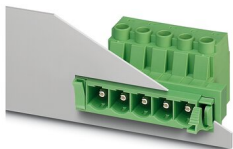


Feed-through header, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-PC 6-16/..-G, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4.1 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

## Feed-through plug

Feed-through plug - DFK-PC 16/ 2-ST-10,16 - 1703373

<https://www.phoenixcontact.com/de/produkte/1703373>



Feed-through connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-PC 16/..-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

# PCB connector - SPC 16/ 2-ST-10,16

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<https://www.phoenixcontact.com/de/produkte/1711268>

## PCB header

PCB header - PCV 6-16/ 2-G1-10,16 - 1998784

<https://www.phoenixcontact.com/de/produkte/1998784>



PCB headers, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PCV 6-16/...-G1, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

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## PCB header

PCB header - PC 6-16/ 2-G1-10,16 - 1998933

<https://www.phoenixcontact.com/de/produkte/1998933>



PCB headers, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 6-16/...-G1, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard



# PCB connector - SPC 16/ 2-ST-10,16

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## Marker strip

Marker strip - SK 5,0 WH:REEL - 0805221

<https://www.phoenixcontact.com/de/produkte/0805221>



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: 5 mm, lettering field size: continuous x 5 mm, Number of individual labels: 90000

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## Coding profile

Coding profile - CP-PC RD - 1701967

<https://www.phoenixcontact.com/de/produkte/1701967>

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



# PCB connector - SPC 16/ 2-ST-10,16

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## Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

<https://www.phoenixcontact.com/de/produkte/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

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