

# ISPC 5/ 9-STGCL-7,62 - PCB connector

1748930

<https://www.phoenixcontact.com/us/products/1748930>



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PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 32 A, rated voltage (III/2): 1000 V, contact surface: Sn, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: ISPC 5/..-STGCL, 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 method: Click & Lock latching window, 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
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Standard header – also suitable for connectors with automatically locking Click and Lock system
- 600 V UL approval in the smallest of dimensions

## Commercial data

Item number	1748930
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADFCA
GTIN	4046356312585
Weight per piece (including packing)	41.36 g
Weight per piece (excluding packing)	39.81 g
Customs tariff number	85366990
Country of origin	IN

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## Technical data

### Product properties

Product type	PCB connector
Product family	ISPC 5/..-STGCL
Product line	COMBICON Connectors L
Type	Inverted
Number of positions	9
Pitch	7.62 mm
Number of connections	9
Number of rows	1
Number of potentials	9
Mounting type	Click & Lock latching window

### Electrical properties

#### Properties

Nominal current $I_N$	32 A
Nominal voltage $U_N$	1000 V
Contact resistance	0.55 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
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Type	Inverted
Connector system	COMBICON PC 5
Nominal cross section	6 mm <sup>2</sup>
Contact connection type	Pin

#### Interlock

Locking type	Clip locking
Mounting type	Click & Lock latching window

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 8

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Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 4.0 mm
Stripping length	15 mm

## Specifications for ferrules without insulating collar

recommended crimping tool	1212034 CRIMPFOX 6 1213144 CRIMPFOX CENTRUS 6S 1213146 CRIMPFOX CENTRUS 6H
ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.5 mm <sup>2</sup> ; Length: 10 mm ... 15 mm Cross section: 0.75 mm <sup>2</sup> ; Length: 10 mm ... 15 mm Cross section: 1 mm <sup>2</sup> ; Length: 10 mm ... 15 mm Cross section: 1.5 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 2.5 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 4 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 6 mm <sup>2</sup> ; Length: 12 mm ... 15 mm

## Specifications for ferrules with insulating collar

recommended crimping tool	1212034 CRIMPFOX 6 1213144 CRIMPFOX CENTRUS 6S 1213146 CRIMPFOX CENTRUS 6H
ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.5 mm <sup>2</sup> ; Length: 10 mm ... 15 mm Cross section: 0.75 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 1 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 1.5 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 2.5 mm <sup>2</sup> ; Length: 12 mm ... 15 mm Cross section: 4 mm <sup>2</sup> ; Length: 12 mm ... 15 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	Tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact 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

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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	
Pitch	7.62 mm
Width [w]	71.38 mm
Height [h]	19.8 mm
Length [l]	40.5 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

Conductor connection	
Specification	IEC 60999-1:1999-11
Result	Test passed
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	10 mm <sup>2</sup> / solid / > 90 N
	6 mm <sup>2</sup> / flexible / > 80 N
	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N

## Insertion and withdrawal forces

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	25

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Insertion strength per pos. approx.	7.5 N
Withdraw strength per pos. approx.	5 N

## Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Polarization and coding

Specification	IEC 60512-7:1993-08 (Polarization)
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 60068-2-6:1995-03
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
Test directions	X-, Y- and Z-axis

### Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	9.8 kV
Contact resistance $R_1$	0.55 m $\Omega$
Contact resistance $R_2$	0.6 m $\Omega$
Insertion/withdrawal cycles	25

### 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

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## 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	$10^{12} \Omega$

### Temperature cycles

Specification	IEC 60999-1:1999-11
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### 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

## Packaging specifications

Type of packaging	packed in cardboard
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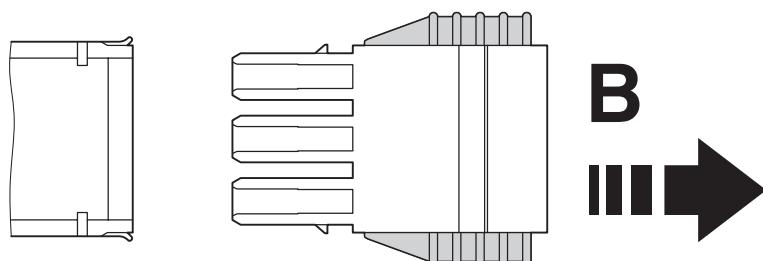
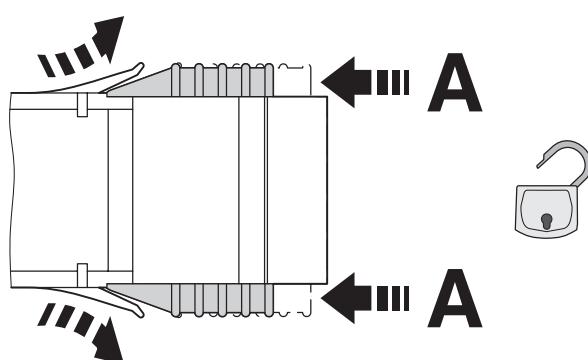
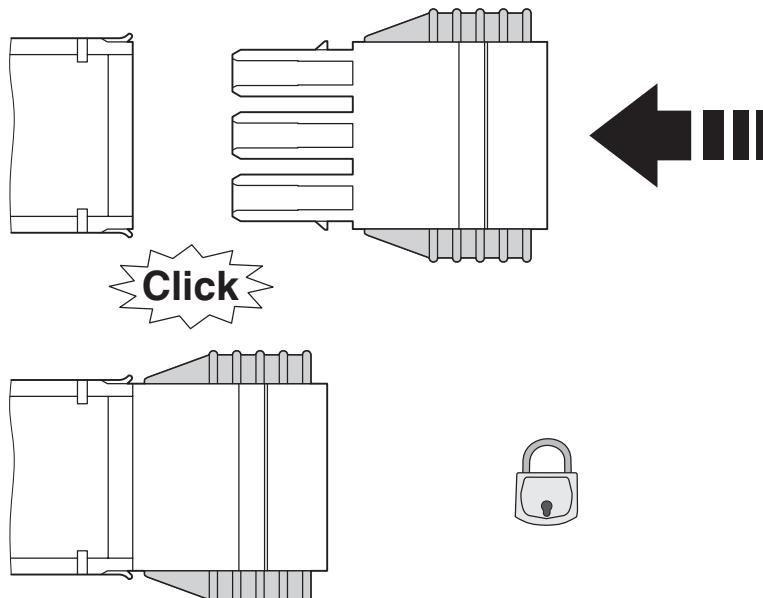
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## Drawings

Schematic diagram



Click and Lock system method of operation

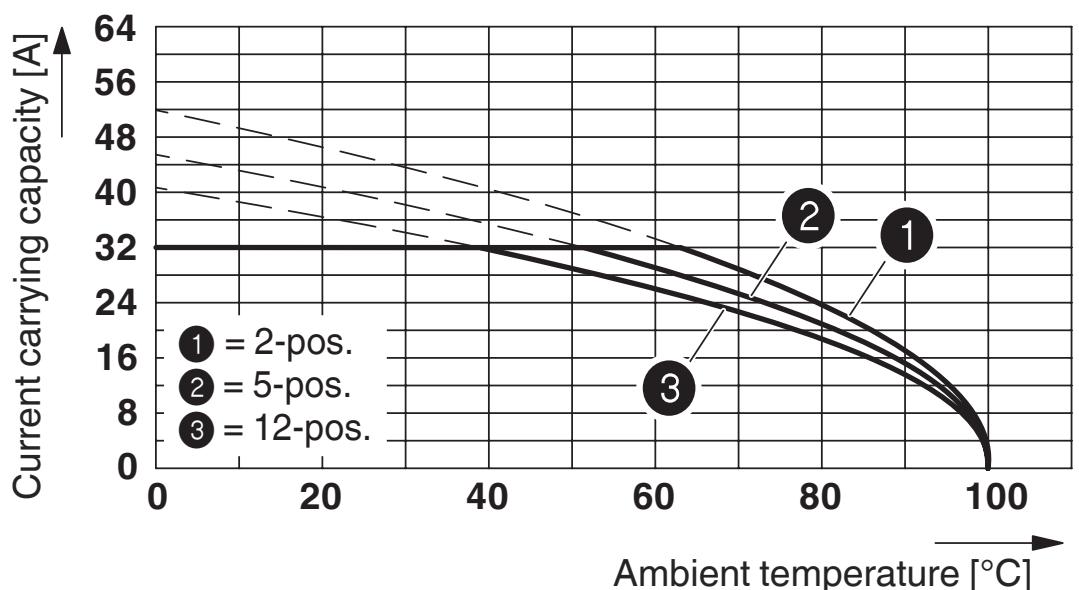
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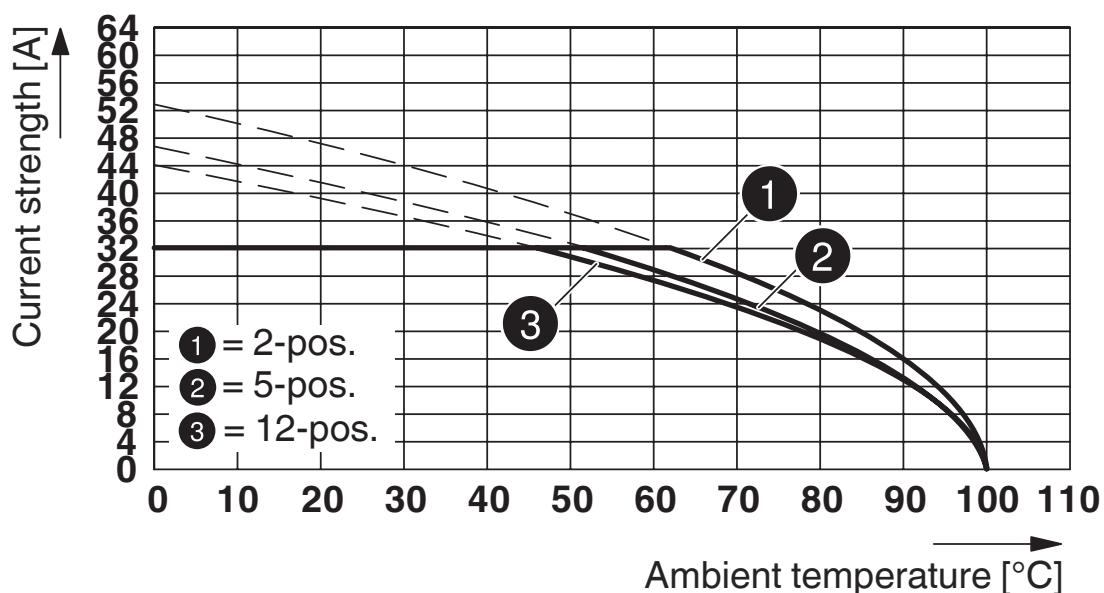


Diagram



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

Diagram



Type: SPC 5/...-STCL-7,62 with ISPC 5/...-STGCL-7,62

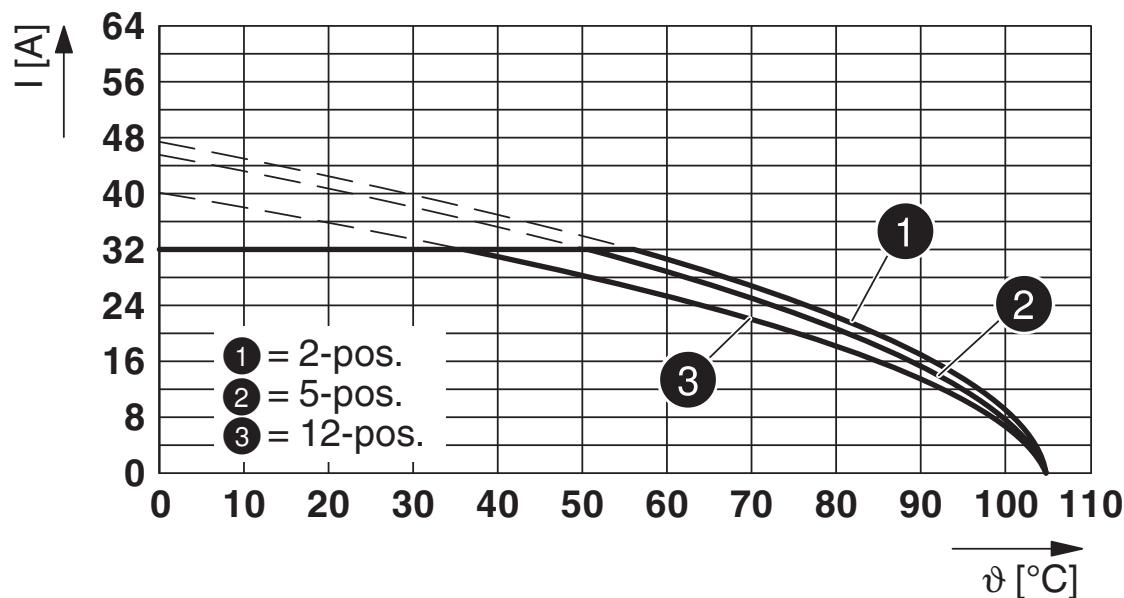
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Diagram



Type: PC 5/...-STCL1-7,62 with ISPC 5/...-STGCL-7,62

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1748930>

cULus Recognized				
Approval ID: E60425-19920722				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
B	600 V	35 A	24 - 8	-
C	600 V	35 A	24 - 8	-

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## Classifications

### ECLASS

ECLASS-13.0	27460202
ECLASS-15.0	27460202

### ETIM

ETIM 9.0	EC002638
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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