SPC 5/ 4-STF-7,62 - PCB connector

1996142

https://www.phoenixcontact.com/us/products/1996142

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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: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: SPC 5/..-STF, 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: Screw locking mechanism, mounting: Screw flange, 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
- Screwable flange for superior mechanical stability
- 600 V UL approval in the smallest of dimensions

Commercial data

Item number	1996142
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADFBB
Catalog page	Page 531 (C-1-2013)
GTIN	4046356037884
Weight per piece (including packing)	24.206 g
Weight per piece (excluding packing)	22.6 g
Customs tariff number	85366990
Country of origin	IN

Technical data

Product properties

Product type	PCB connector
Product family	SPC 5/..-STF
Product line	COMBICON Connectors L
Type	Standard
Number of positions	4
Pitch	7.62 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Mounting flange	Screw flange

Electrical properties

Nominal current I_N	41 A
Nominal voltage U_N	1000 V
Degree of pollution	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
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON PC 5
Nominal cross section	6 mm²
Contact connection type	Socket

Interlock

Locking type	Screw locking mechanism
Mounting flange	Screw flange
Tightening torque	0.3 Nm ... 0.7 Nm

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.2 mm² ... 10 mm²
Conductor cross section flexible	0.2 mm² ... 6 mm²
Conductor cross section AWG	24 ... 8

Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 6 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm² ... 1.5 mm²
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 mm²; Length: 10 mm ... 15 mm
	Cross section: 0.75 mm²; Length: 10 mm ... 15 mm
	Cross section: 1 mm²; Length: 10 mm ... 15 mm
	Cross section: 1.5 mm²; Length: 12 mm ... 15 mm
	Cross section: 2.5 mm²; Length: 12 mm ... 15 mm
	Cross section: 4 mm²; Length: 12 mm ... 15 mm
	Cross section: 6 mm²; 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 mm²; Length: 10 mm ... 15 mm
	Cross section: 0.75 mm²; Length: 12 mm ... 15 mm
	Cross section: 1 mm²; Length: 12 mm ... 15 mm
	Cross section: 1.5 mm²; Length: 12 mm ... 15 mm
	Cross section: 2.5 mm²; Length: 12 mm ... 15 mm
	Cross section: 4 mm²; Length: 12 mm ... 15 mm

Material specifications

Material data - contact

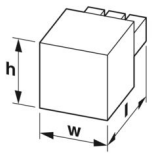
Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

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

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]	45.7 mm
Height [h]	19.8 mm
Length [l]	38.5 mm

Mounting

Flange

Tightening torque	0.3 Nm ... 0.7 Nm

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.

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	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	6 mm² / flexible / > 80 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 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 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	9.8 kV
Contact resistance R_1	0.5 mΩ
Contact resistance R_2	0.6 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	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	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 |

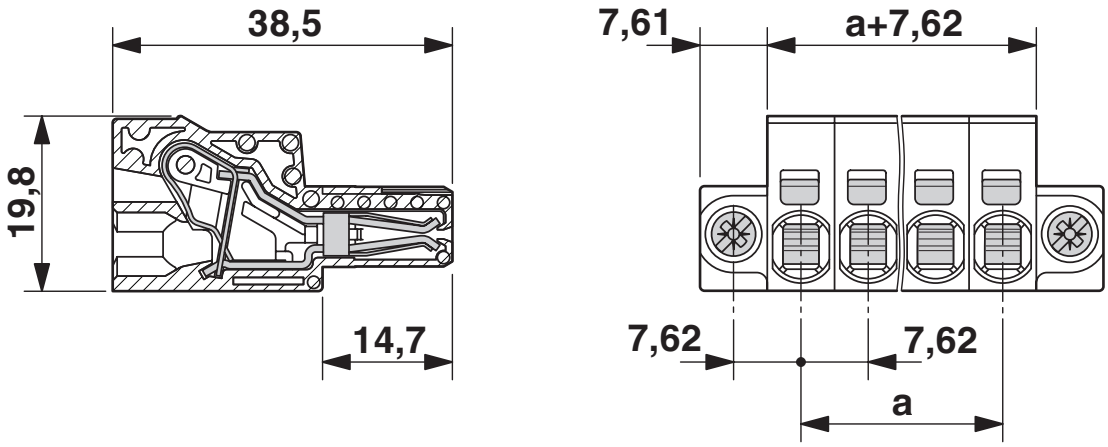
Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation 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

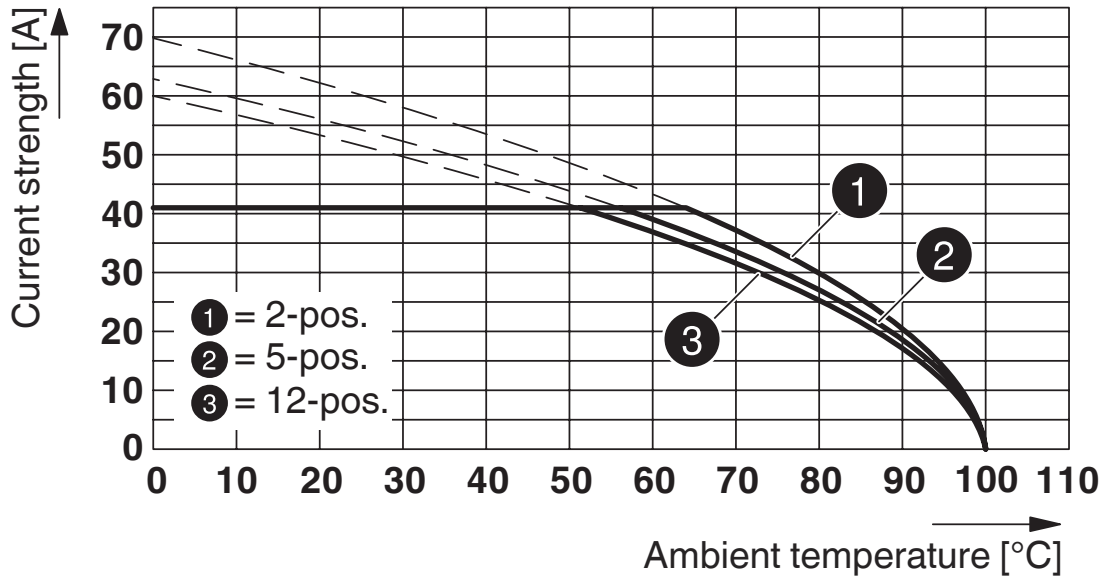
Type of packaging	packed in cardboard

Drawings

Dimensional drawing



Diagram



Type: SPC 5/...-STF-7,62 with DFK-PC 5/...-STF-7,62
Conductor cross section: 10 mm^2

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1996142

cULus Recognized
Approval ID: E60425-19920722

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	35 A	24 - 8	-
Use group C				
	600 V	35 A	24 - 8	-

Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 9.0	EC002638

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

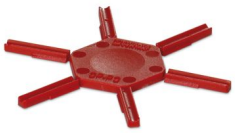
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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

SZF 1-0,6X3,5 - Screwdriver

1204517

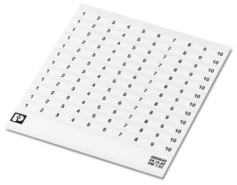
https://www.phoenixcontact.com/us/products/1204517

Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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

0804549

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

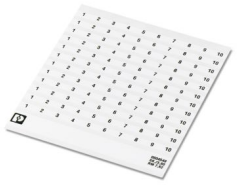


Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

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

AI 4 -15 GY - Ferrule

1200264

https://www.phoenixcontact.com/us/products/1200264

Ferrule, sleeve length: 15 mm, color: gray

CRIMPFOX CENTRUS 6S - Crimping pliers

1213144

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Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm^2 … 6 mm^2, also for TWIN ferrules up to 2 x 4 mm^2, automatic cross section adjustment, lateral insertion, equipped with fall protection

CRIMPFOX CENTRUS 6H - Crimping pliers

1213146

https://www.phoenixcontact.com/us/products/1213146

Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm^2 ... 6 mm^2, also for TWIN ferrules up to 2 x 4 mm^2, automatic cross section adjustment, lateral insertion, equipped with fall protection

CRIMPFOX 6 - Crimping pliers

1212034

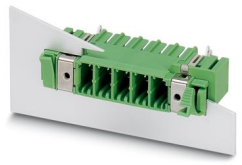
https://www.phoenixcontact.com/us/products/1212034

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^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

DFK-PC 5/ 4-GF-SH-7,62 - Feed-through header

1716085

https://www.phoenixcontact.com/us/products/1716085

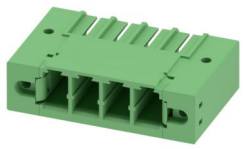


Feed-through header, nominal cross section: 6 mm^2, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: DFK-PC 5/..-GF-SH, pitch: 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

PC 5/ 4-GF-7,62 - PCB header

1720819

https://www.phoenixcontact.com/us/products/1720819



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PC 5/..-GF, 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

SPC 5/ 4-STF-7,62 - PCB connector

1996142

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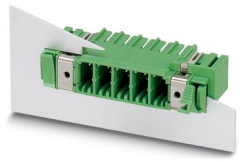
DFK-PC 5/ 4-GF-7,62 - Feed-through header

1727715

https://www.phoenixcontact.com/us/products/1727715



Feed-through header, 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: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: DFK-PC 5/..-GF, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.9 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

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