

Printed-circuit board connector - SPC 16/ 4-STF-10,16 - 1711394

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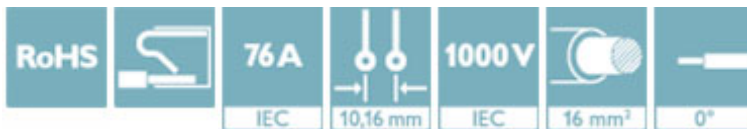
PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, connection method: Push-in spring connection, color: green, contact surface: Silver



The figure shows a 5-pos. version of the product

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



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356081146

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 16
Type of contact	Female connector
Range of articles	SPC 16/...STF
Pitch	10.16 mm
Number of positions	4
Connection method	Push-in spring connection
Locking	Screw flange
Number of levels	1

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Technical data

Item properties

Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	76 A
Nom. voltage	1000 V
Rated voltage	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Push-in spring connection
pluggable	Yes
Conductor cross section solid	0.75 mm ² ... 16 mm ²
Conductor cross section flexible	0.75 mm ² ... 16 mm ²
Conductor cross section AWG / kcmil	18 ... 4
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² ... 16 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm ² ... 10 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.75 mm ² ... 4 mm ²
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 5.4 mm
Stripping length	18 mm

Type of locking	Screw locking
Mounting flange	Screw flange

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 µm Ag)
Metal surface contact area (top layer)	Silver (4 - 8 µm 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

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Technical data

Material data - housing

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 for the product

Length [l]	44.5 mm
Width [w]	58.4 mm
Height [h]	25.1 mm
Pitch	10.16 mm
Dimension a	30.48 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Ambient conditions

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

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.75 mm² / solid / > 30 N
	0.75 mm² / flexible / > 30 N
	16 mm² / solid / > 100 N
	16 mm² / flexible / > 100 N

Mechanical tests according to standard

Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	50

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Mechanical tests according to standard

Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

Electrical tests - Function

Specification	IEC 60999-1:1999-11
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Temperature cycles

Specification	IEC 60999-1:1999-11
Test current (minimum cross section)	9 A DC
Test current (maximum cross section)	76 A DC
Temperature cycles	192

Current carrying capacity / derating curves

Mechanical tests (A)

Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N
Polarization when inserted requirement >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	0.5 mΩ
Insertion/withdrawal cycles	50
Contact resistance R ₂	0.5 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	4.7 TΩ

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle

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Climatic tests (D)

Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV

Environmental and durability tests (E)

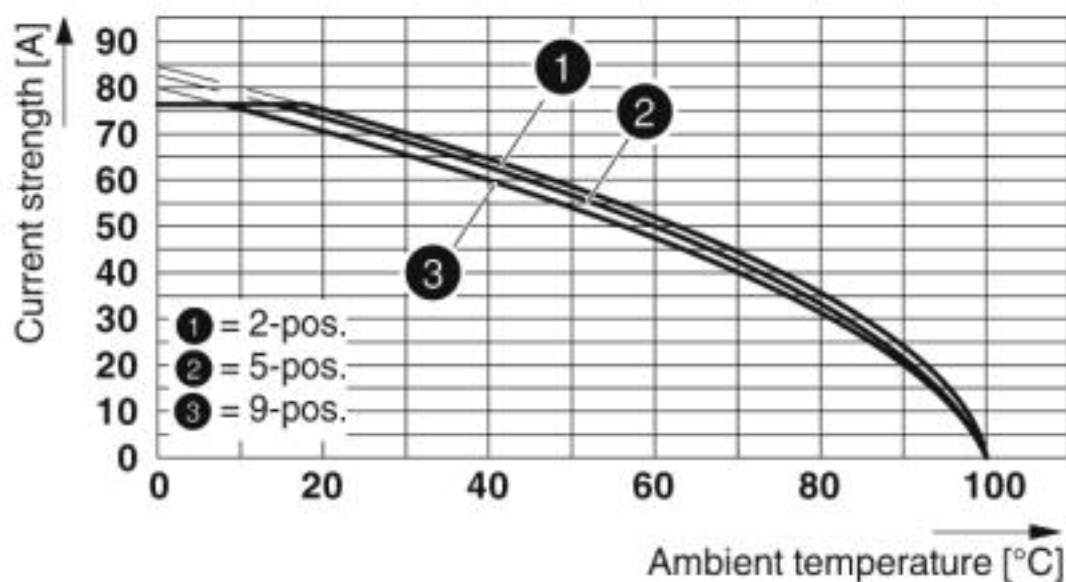
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

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

Drawings

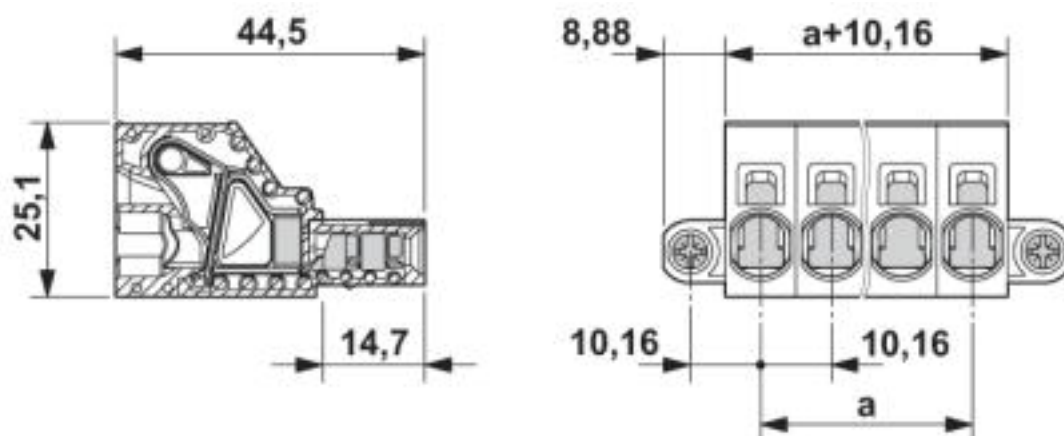
Diagram



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

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Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

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Approvals

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Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	CH-10653-M1
Nominal voltage UN	1000 V		
Nominal current IN	76 A		
mm²/AWG/kcmil	16		

SEV		https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html	IK-4468-M1
Nominal voltage UN	1000 V		
Nominal current IN	76 A		
mm²/AWG/kcmil	16		

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20040202
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	66 A	66 A	
mm²/AWG/kcmil	20-4	20-4	

Accessories

Accessories

Coding element

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Accessories

Coding profile - CP-PC RD - 1701967



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

Crimping tool

Crimping pliers - CRIMPFOX 6 - 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 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm²

Jumper

Plug-in bridge - FBS 2-10 - 3005947



Plug-in bridge, pitch: 10.2 mm, number of positions: 2, color: red

Screwdriver tools

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

Terminal marking

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Accessories

Marker strip - SK 5,0 WH:REEL - 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

Additional products

Feed-through header - PCV 6-16/ 4-G1F-10,16 - 1998881



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Feed-through header - PC 6-16/ 4-G1F-10,16 - 1999026



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Feed-through header - PC 6-16/ 4-G1FU-10,16 - 1996333



PCB headers, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm

Printed-circuit board connector - ISPC 16/ 4-STGF-10,16 - 1748723



PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, connection method: Push-in spring connection, color: green, contact surface: Silver

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Accessories

Printed-circuit board connector - IPC 16/ 4-STGF-10,16 - 1975833



PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

Feed-through header - DFK-PC 6-16/ 4-GF-10,16 - 1701553



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

Feed-through header - DFK-PC 6-16/ 4-GFU-10,16 - 1701715



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

Feed-through header - DFK-PC 6-16/ 4-GF-SH-10,16 - 1701951



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

Feed-through header - DFK-PC 6-16/ 4-GFU-SH-10,16 - 1702031



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm

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Accessories

Feed-through header - DFK-PCV 6-16/ 4-GF-10,16 - 1702277



Feed-through header, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning

Feed-through plug - DFK-PC 16/ 4-STF-10,16 - 1703470



Feed-through connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver

Feed-through plug - DFK-PC 16/ 4-STF-SH-10,16 - 1703632



Feed-through connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 4, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver, solder pin [P]: 4.1 mm

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>