IPC 16/ 4-STGF-10,16 - PCB connector

1975833

https://www.phoenixcontact.com/de/produkte/1975833

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PCB connector, nominal cross section: 16 mm^2, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: IPC 16/..-STGF, 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: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Screwable flange for superior mechanical stability

Commercial Data

Item number	1975833
Packing unit	25 pc
Minimum order quantity	25 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AAEABD
Catalog Page	Page 560 (C-1-2013)
GTIN	4017918953157
Weight per Piece (including packing)	39,794 g
Weight per Piece (excluding packing)	38,548 g
Customs tariff number	85366990
Country of origin	PL

Technical Data

Product properties

Type	Inverted
Product line	COMBICON Connectors XL
Product type	PCB plug
Product family	IPC 16/..-STGF
Number of positions	4
Pitch	10.16 mm
Number of connections	4
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	4

Electrical properties

Nominal current I_N	76 A
Nominal voltage U_N	1000 V
Degree of pollution	3
Contact resistance	0.3 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 16
Nominal cross section	16 mm²
Type of contact	Male connector

Interlock

Locking type	Screw locking
Mounting flange	Threaded flange
Tightening torque	0.3 Nm

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross section solid	0.75 mm² ... 16 mm²
Conductor cross section flexible	0.75 mm² ... 16 mm²
Conductor cross section AWG	18 ... 6

Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm² ... 16 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm² ... 10 mm²
2 conductors with same cross section, solid	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 6 mm²
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	12 mm
Tightening torque	1.7 Nm ... 1.8 Nm

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	completely silver-plated
Metal surface terminal point (top layer)	Silver (4 - 8 µm Ag)
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)

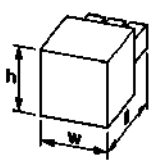
Material data - housing

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

Material data – actuating element

Color ()	()

Dimensions

Dimensional drawing	
Pitch	10.16 mm
Width [w]	58.4 mm
Height [h]	27.8 mm

Length [l]	44.1 mm

Mounting

Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)

Flange

Tightening torque	0.3 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

Test for conductor damage and slackening

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 mm² / solid / > 30 N
	0.75 mm² / flexible / > 30 N
	16 mm² / solid / > 100 N
	16 mm² / flexible / > 100 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	12 N
Withdraw strength per pos. approx.	8 N

Torque test

Specification	IEC 60999-1:1999-11

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)
Sweep speed	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	0.3 mΩ
Contact resistance R_2	0.3 mΩ
Insertion/withdrawal cycles	25
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

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

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

Air clearances and creepage distances |

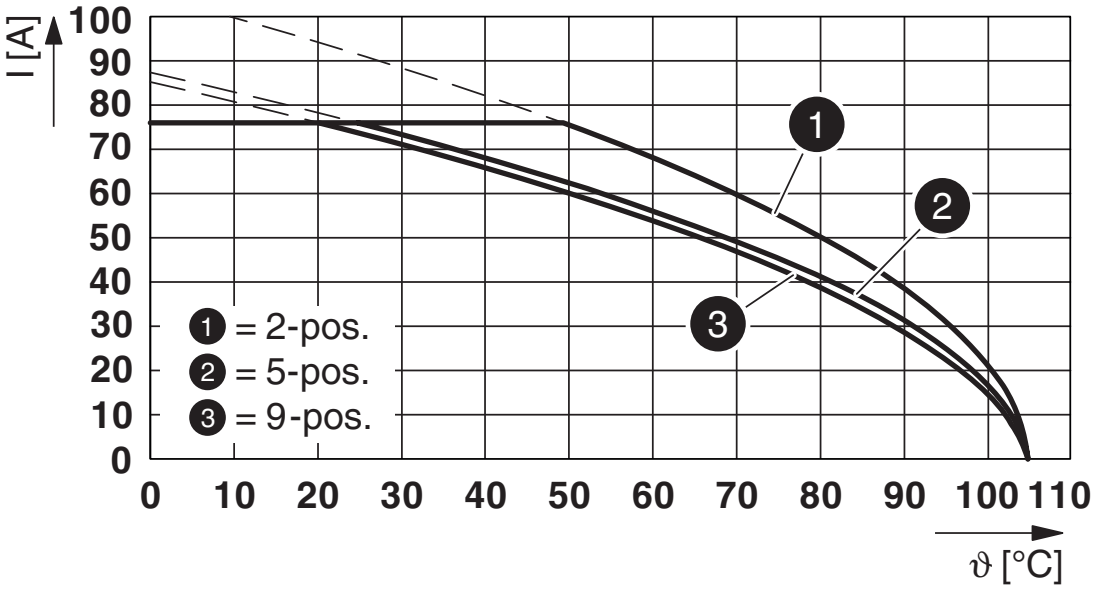
Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation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

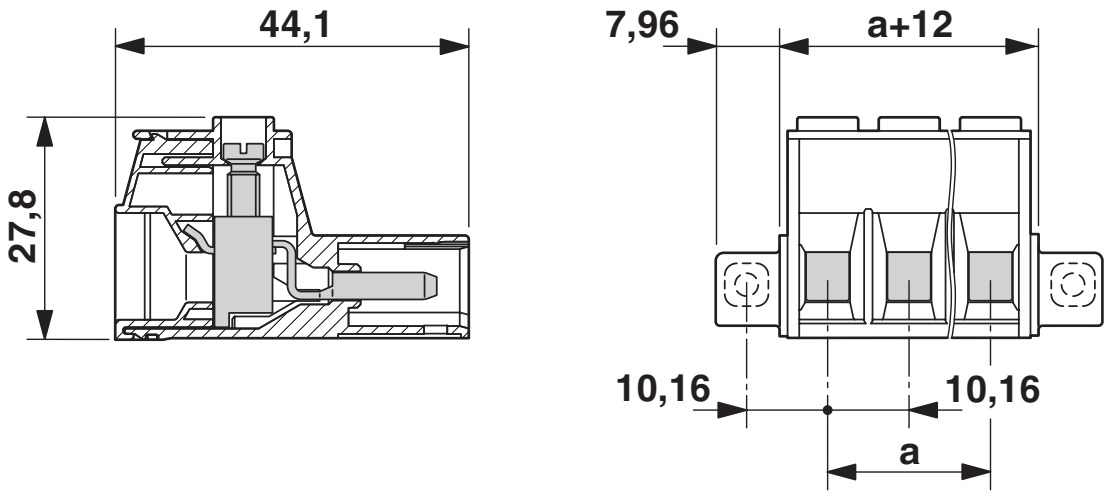
Drawings

Diagram



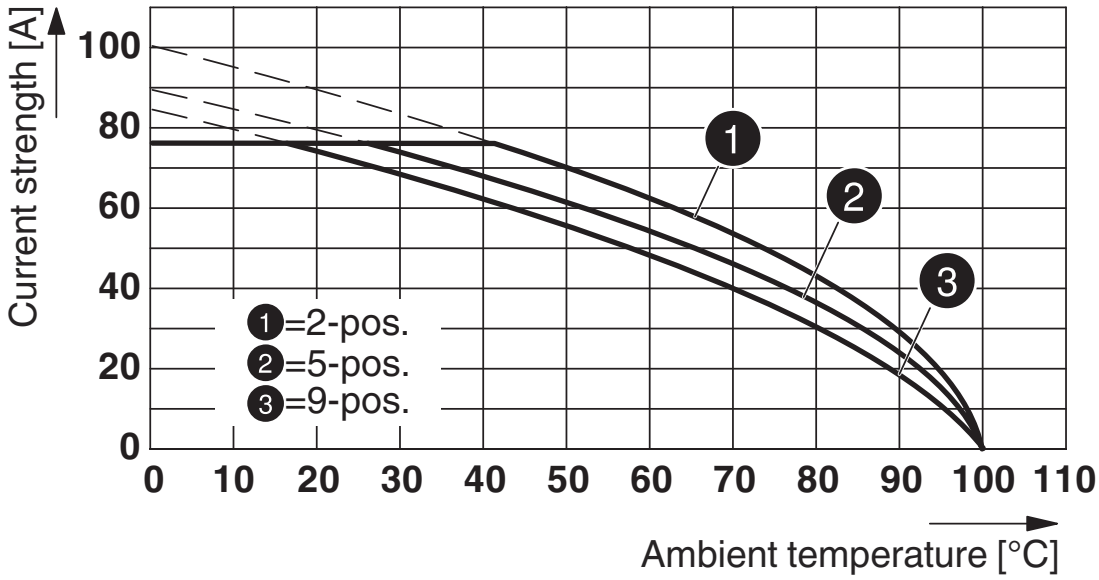
Type: SPC 16/...-STF-10,16 with IPC 16/...-STGF-10,16

Dimensional drawing



The figure shows the 3-pos. version

Diagram



Type: PC 16/..-STF-10,16 with IPC 16/..-STGF-10,16

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 mm^2
Use group B				
	600 V	55 A	20 - 6	-
Use group C				
	600 V	55 A	20 - 6	-

IECEE CB Scheme
Approval ID: DE1-66677

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
		76 A	-	0.75 - 16

VDE Zeichengenehmigung
Approval ID: 40055586

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
		76 A	-	0.75 - 16

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002638

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

Accessories

CP-PC RD - Coding profile

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

SZS 1,0X4,0 VDE - Screwdriver

1205066

https://www.phoenixcontact.com/de/produkte/1205066



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

SK 5,0 WH:REEL - Marker strip

0805221

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



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, for terminal block width: 5 mm, lettering field size: continuous x 5 mm, Number of individual labels: 90000

CRIMPFOX 6 - Crimping pliers

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

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PC 16/ 4-STF-10,16 - PCB connector

1967472

https://www.phoenixcontact.com/de/produkte/1967472



PCB connector, nominal cross section: 16 mm^2, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PC 16/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

TPC 16/ 4-STF-10,16 - PCB connector

1715277

https://www.phoenixcontact.com/de/produkte/1715277



PCB connector, nominal cross section: 16 mm^2, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 8, product range: TPC 16/..-STF, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 50 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

IPC 16/ 4-STGF-10,16 - PCB connector

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SPC 16/ 4-STF-10,16 - PCB connector

1711394

https://www.phoenixcontact.com/de/produkte/1711394



PCB connector, nominal cross section: 16 mm^2, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: SPC 16/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

DR 35-PC 16 - DIN rail adapter

1708410

https://www.phoenixcontact.com/de/produkte/1708410



DIN rail adapter, for snapping the PC 16/IPC 16 connector onto a DIN rail, color: green, mounting type: NS 35/7,5, NS 35/15

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