

1703470

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Feed-through connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: DFK-PC 16/..-STF, 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: Screw locking mechanism, mounting method: Screw 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
- · Flange system enables secure fixing to the housing panel by means of tool-free snap-in locking or screws
- · Shroud for professional EMC shield connection on the front of the device
- · Screwable flange for superior mechanical stability

Commercial data

Item number	1703470
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	AAEWDB
Product key	AAEWDB
Catalog page	Page 583 (C-1-2013)
GTIN	4017918994396
Weight per piece (including packing)	52.41 g
Weight per piece (excluding packing)	46.53 g
Customs tariff number	85366990
Country of origin	DE



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Technical data

Product properties

Product type	Feed-through connector
Product family	DFK-PC 16/STF
Product line	COMBICON Connectors XL
Туре	Feed-through header
Number of positions	4
Pitch	10.16 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Mounting flange	Screw flange

Electrical properties

Properties

76 A
1000 V
0.5 mΩ
1000 V
8 kV
1000 V
8 kV
1000 V
6 kV

Connection data

Connection technology

Туре	Feed-through header
Connector system	COMBICON PC 16
Nominal cross section	16 mm²
Contact connection type	Pin

Interlock

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

Conductor connection

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section rigid	0.75 mm² 16 mm²
Conductor cross section flexible	0.75 mm² 16 mm²



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Conductor cross section AWG	18 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² 16 mm ² (Only in connection with CRIMPFOX 16 S)
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm² 16 mm² (Only in connection with CRIMPFOX 16 S)
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	4.3 mm x 4.0 mm / 5.4 mm
Stripping length	12 mm
Drive form screw head	Slotted (L)
Tightening torque	1.7 Nm 1.8 Nm

Mounting

Attachment to feed-through panel

Tightening torque	0.3 Nm
Screw	1700368 DFK-PC 35 SS

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	Electroplated silver
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

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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Dimensions

Dimensional drawing	h
Pitch	10.16 mm
Width [w]	76 mm
Height [h]	27.8 mm
Length [I]	44.1 mm

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	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

Differsion check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed



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Electrical tests

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Thermal	test	LLEST	aroun	(;

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

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
Test directions	X-, Y- and Z-axis

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	0.5 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ



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Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	$0.2~\mathrm{dm}^3~\mathrm{SO}_2$ on 300 dm $^3/40~\mathrm{^\circ C}/1$ 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

Packaging specifications

Type of packaging	packed in cardboard
71 1 0 0	•

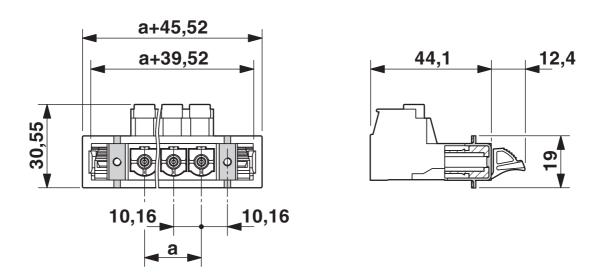


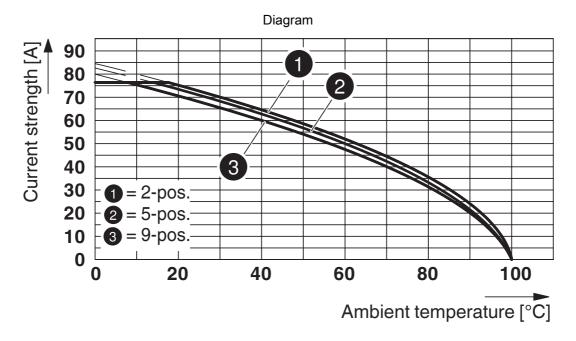
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Drawings

Dimensional drawing



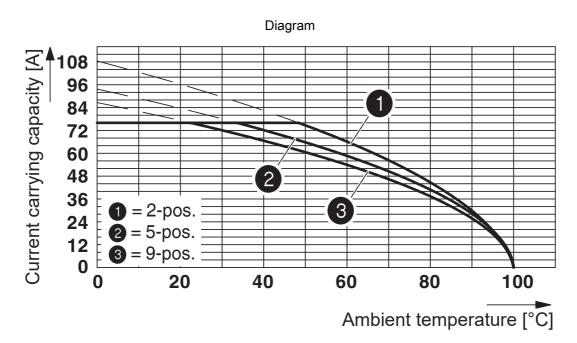


Type: SPC 16/...-ST(F)-10,16 with DFK-PC 16/...-ST(F)-10,16



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Type: PC 16/...-STF-10,16 with DFK-PC 16/...-STF-10,16



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/au/products/1703470

CULus Recognized Approval ID: E60425-20040202				
	Nominal voltage \mathbf{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	-

VDE approval of drawings Approval ID: 40055586					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		1000 V	76 A	-	0.75 - 16



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Classifications

ECLASS

	ECLASS-13.0	27460202		
ΕΊ	ETIM			
	ETIM 9.0	EC002638		
U	NSPSC			
	UNSPSC 21.0	39121400		



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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%
EF3.0 Climate Change	
CO2e kg	0.717 kg CO2e

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