1716629

https://www.phoenixcontact.com/us/products/1716629



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Feed-through connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: DFK-PC 5/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: Z1L Slotted Pozidriv, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: 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	1716629
Packing unit	1 pc
Minimum order quantity	10 pc
Sales Key	AA04
Product Key	AADWEB
Catalog Page	Page 549 (C-1-2013)
GTIN	4046356137249
Weight per Piece (including packing)	26.02 g
Weight per Piece (excluding packing)	25 g
Customs tariff number	85366990
Country of origin	PL

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## **Technical Data**

### **Product properties**

Туре	Feed-through header
Product line	COMBICON Connectors L
Product type	Feed-through connector
Product family	DFK-PC 5/STF
Number of positions	3
Pitch	7.62 mm
Number of connections	3
Number of rows	1
Mounting flange	Screw flange
Number of potentials	3

### **Electrical properties**

Nominal current I <sub>N</sub>	41 A
Nominal voltage U <sub>N</sub>	1000 V
Degree of pollution	3
Contact resistance	0.5 mΩ
Rated voltage (III/3)	630 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

Connector system	
	COMBICON PC 5
Nominal cross section 6	3 mm²
Contact connection type Pi	Pin

Interlock

Locking type	Screw locking
Mounting flange	Screw flange

#### Conductor connection

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in 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 10
Conductor cross section flexible, with ferrule without plastic	0.25 mm <sup>2</sup> 6 mm <sup>2</sup>





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.25 mm <sup>2</sup> 4 mm <sup>2</sup> .2 mm <sup>2</sup> 2.5 mm <sup>2</sup> .2 mm <sup>2</sup> 4 mm <sup>2</sup>
$0 mm^2 = 4 mm^2$
.2 [[][[] <sup>+</sup> 4 [[][[] <sup>+</sup>
.25 mm² 1.5 mm²
.25 mm² 2.5 mm²
.6 mm x 3.1 mm / 3.4 mm
0 mm
.7 Nm 0.8 Nm
.2

## Mounting

Drive form screw head	Slotted Pozidriv (Z1L)
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted Pozidriv (Z1L)

### 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	1
CTI according to IEC 60112	600
Flammability rating according to UL 94	VO

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.

### Dimensions





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Dimensional drawing	h w
Pitch	7.62 mm
Width [w]	57.48 mm
Height [h]	26.24 mm
Length [I]	48.95 mm
Installed height	26.24 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	0.2 mm² / solid / > 10 N			
setpoint/actual value	0.2 mm² / flexible / > 10 N			
	10 mm² / solid / > 90 N			
	6 mm² / flexible / > 80 N			
Insertion and withdrawal forces				
Result	Test passed			

Test passed
50
5 N
4 N
IEC 60068-2-70:1995-12
Test passed
IEC 60512-13-5:2006-02
Test passed
IEC 60512-1-1:2002-02
Test passed
IEC 60512-1-2:2002-02
Test passed

### Electrical tests



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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	
Air clearances and creepage distances		
Specification	IEC 60664-1:2007-04	
Insulating material group	1	
Comparative tracking index (IEC 60112)	CTI 600	
Rated insulation voltage (III/3)	630 V	
Rated surge voltage (III/3)	8 kV	
minimum clearance value - non-homogenous field (III/3)	8 mm	
minimum creepage distance (III/3)	8 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)		
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 <sub>1</sub>	0.5 mΩ		
Contact resistance R <sub>2</sub>	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		



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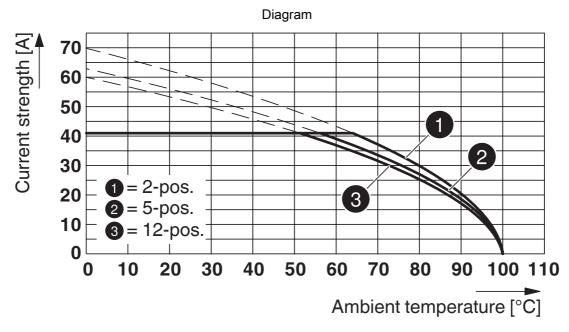
Thermal stress	100 °C/168 h		
Power-frequency withstand voltage	4.26 kV		
Ambient conditions			
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)		
Ambient temperature (storage/transport)	-40 °C 70 °C		
Relative humidity (storage/transport)	30 % 70 %		
Ambient temperature (assembly)	-5 °C 100 °C		



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## Drawings



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



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## Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1716629

EAC Approval ID: B.01687
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CULus Recogniz Approval ID: E60425	<b>zed</b> -19920722			
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	600 V	41 A	24 - 8	-
Use group C				
	600 V	41 A	24 - 8	-

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## Classifications

### ECLASS

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

## ETIM

	ETIM 8.0	EC002638
UN	NSPSC	
	UNSPSC 21.0	39121400

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## **Environmental Product Compliance**

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

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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



## DFK-PC 16-SS - Accessories

1705449 https://www.phoenixcontact.com/us/products/1705449



Screw set for DFK-PC 16... connectors

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### SZK PZ1 VDE - Screwdriver

#### 1206450

https://www.phoenixcontact.com/us/products/1206450



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 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:  $7.62 \times 3.8$  mm

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### 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

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DFK-PC MOUNT SET - Accessories

#### 1054021

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Contains 20 pcs. latch and screw elements for feed-through connectors each



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