1716564

https://www.phoenixcontact.com/us/products/1716564



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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, type of contact: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: DFK-PC 5/. -ST, 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: without, mounting: without, 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

## **Commercial Data**

Item number	1716564
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to Order (non-returnable)
Sales Key	AA04
Product Key	AADWEA
Catalog Page	Page 548 (C-1-2013)
GTIN	4046356137188
Weight per Piece (including packing)	44.23 g
Weight per Piece (excluding packing)	44.23 g
Customs tariff number	85366990
Country of origin	PL

1716564

https://www.phoenixcontact.com/us/products/1716564

## **Technical Data**

### **Product properties**

Туре	Feed-through header
Product line	COMBICON Connectors L
Product type	Feed-through connector
Product family	DFK-PC 5/ST
Number of positions	8
Pitch	7.62 mm
Number of connections	8
Number of rows	1
Mounting flange	without
Number of potentials	8

### **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

Туре	Feed-through header
Connector system	COMBICON PC 5
Nominal cross section	6 mm <sup>2</sup>
Type of contact	Pin
Interlock	

Locking type	without
Mounting flange	without

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 mm² 6 mm²
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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https://www.phoenixcontact.com/us/products/1716564

sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> 4 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm² 4 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm² 2.5 mm²
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.4 mm
Stripping length	10 mm
Tightening torque	0.7 Nm 0.8 Nm

### Mounting

Drive form screw head	Slotted Pozidriv (Z1L)
Drive form screw head	Slotted Pozidriv (Z1L)

## Material specifications

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
Material data – actuating element	
Color ()	0

### 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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#### 1716564

https://www.phoenixcontact.com/us/products/1716564

Dimensional drawing	h w
Pitch	7.62 mm
Width [w]	86.46 mm
Height [h]	26.24 mm
Length [I]	48.93 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 setpoint/actual value	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	10 mm² / solid / > 90 N
	6 mm² / flexible / > 80 N
Insertion and withdrawal forces	

Insertion and withdrawar forces	
Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	6 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

Electrical tests



#### 1716564

https://www.phoenixcontact.com/us/products/1716564

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 $\mathrm{dm^3}\mathrm{SO_2}\mathrm{on}$ 300 $\mathrm{dm^3/40}~^\circ\mathrm{C/1}$ cycle			



https://www.phoenixcontact.com/us/products/1716564

Thermal stress	100 °C/168 h
Power-frequency withstand voltage	4.26 kV
mbient 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

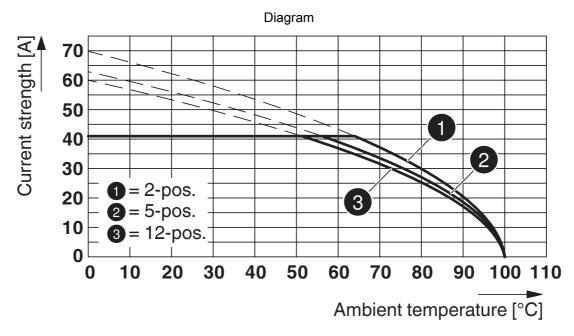
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1716564

https://www.phoenixcontact.com/us/products/1716564

## Drawings



Type: SPC 5/..-ST-7,62 with DFK-PC 5/..-ST-7,62



1716564

https://www.phoenixcontact.com/us/products/1716564

## Approvals

EAC Approval ID: B.01687

Approval ID: E60425-19920722				
	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	-

1716564

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## Classifications

### ECLASS

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

### ETIM

	ETIM 8.0	EC002638
U	NSPSC	
	UNSPSC 21.0	39121400

1716564 https://www.phoenixcontact.com/us/products/1716564



## **Environmental Product Compliance**

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

1716564

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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

1716564

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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

1716564

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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, Sheet, 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

1716564

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#### DFK-PC MOUNT SET - Accessories

#### 1054021

https://www.phoenixcontact.com/us/products/1054021

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



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