

1840625

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Feed-through connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: DFK-PC 4/..-GF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Direct mounting, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON PC 4, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, 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
- · Screwable flange for superior mechanical stability
- · Flexible side panels enable convenient wall mounting prewired from the inside

#### Commercial data

Item number	1840625
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADWCA
Catalog page	Page 518 (C-1-2013)
GTIN	4017918111779
Weight per piece (including packing)	37.19 g
Weight per piece (excluding packing)	37.19 g
Customs tariff number	85366990
Country of origin	PL



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### Technical data

### Product properties

Product type	Feed-through connector
Product family	DFK-PC 4/GF
Product line	COMBICON Connectors L
Туре	Feed-through header
Number of positions	9
Pitch	7.62 mm
Number of connections	9
Number of rows	1
Number of potentials	9
Mounting flange	Threaded flange
Solder pins per potential	1

### Electrical properties

Nominal current I <sub>N</sub>	20 A
Nominal voltage U <sub>N</sub>	630 V
Degree of pollution	3
Contact resistance	0.4 mΩ
Rated voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 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 4
Nominal cross section	4 mm²
Contact connection type	Pin

#### Interlock

Locking type	Screw locking mechanism
Mounting flange	Threaded 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 mm² 4 mm²
Conductor cross section flexible	0.2 mm² 4 mm²
Conductor cross section AWG	24 10



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Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² 4 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 4 mm²
2 conductors with same cross section, solid	0.2 mm² 2.5 mm²
2 conductors with same cross section, flexible	0.2 mm² 2.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.2 mm² 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 2.5 mm²
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.0 mm
Stripping length	7 mm
Tightening torque	0.5 Nm 0.6 Nm

### Mounting

Mounting type	Direct mounting
Drive form screw head	Slotted (L)

### 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 (5 - 7 μm Sn)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)

#### 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.

### Dimensions



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Dimensional drawing	
	h
Pitch	7.62 mm
Width [w]	90.2 mm
Height [h]	30.5 mm
Length [I]	32 mm
Installed height	30.5 mm
echanical tests	
Test for conductor damage and slackening	IEC 60000 4:4000 44
Specification  Result	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
	4 mm² / solid / > 60 N
	4 mm² / flexible / > 60 N
Insertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Torque test	
Specification	IEC 60999-1:1999-11
Decistance of inserintians	
Resistance of inscriptions  Specification	IEC 60068-2-70:1995-12
Result	Test passed
result	rest passed
Polarization and coding	
Specification	IEC 60512-7:1993-08 (Polarization)
Result	Test passed
Visual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
ороспоацоп	1LU 00012-1-2.2002-02



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Contact resistance R<sub>1</sub>

Contact resistance R<sub>2</sub>

Climatic test

Insertion/withdrawal cycles

Result	Test passed
lectrical tests	
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	10 <sup>12</sup> Ω
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)	400 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	5.5 mm
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	5.5 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
nvironmental and real-life conditions	
iviloninental and real-life conditions	
Vibration test	
Specification	IEC 60068-2-6:1995-03
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
Durability test	
Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	7.3 kV
0 ( ) ( )	

 $0.4~\text{m}\Omega$ 

 $0.6 \text{ m}\Omega$ 

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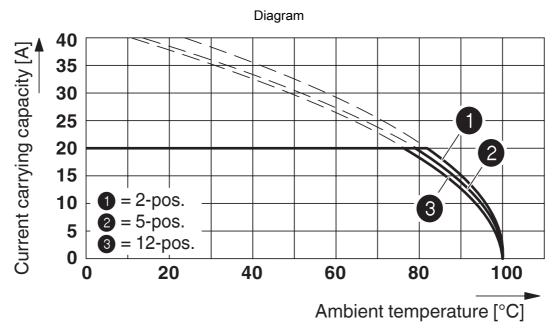
Specification	ISO 6988:1985-02
Corrosive stress	KFW 0.2 S/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV
mbient conditions  Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
	-40 °C 100 °C (dependent on the denating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C



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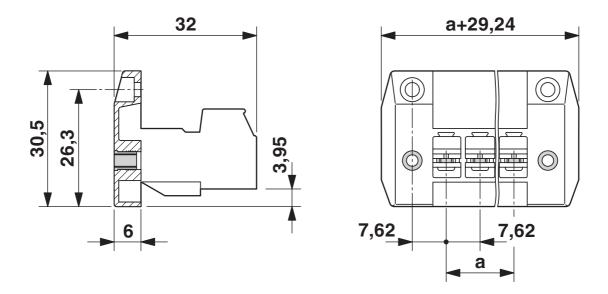
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## **Drawings**



Type: PC 4/...-STF-7,62 with DFK-PC 4/...-GF-7,62

### Dimensional drawing

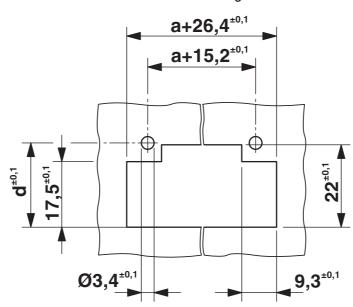




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### Dimensional drawing



Dimension d depending on the wall thickness (W) in mm: W=1: d=21.4

W=2: d=21.9

W=3: d=22.5

W=4: d=23.1

W=5: d=23.7



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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1840625

CSA Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B				
	300 V	20 A	28 - 10	-
Use group C				
	300 V	20 A	28 - 10	-

CULus Recognized 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				
	300 V	35 A	30 - 10	-
Use group C				
	300 V	35 A	30 - 10	-
Use group D				
	600 V	5 A	30 - 10	-

DNV GL	
Approval ID: TAE00001EZ	





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## Classifications

UNSPSC 21.0

#### **ECLASS**

E	ECLASS-11.0	27460202
Е	ECLASS-12.0	27460202
Е	ECLASS-13.0	27460202
ETIM		
Е	TIM 9.0	EC002638
UNSF	PSC	

39121400



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## Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	97e63531-afc4-4a24-a30f-8bb018afbc5a



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#### Accessories

DFK-MSTB-SS - Screw set

0708263

https://www.phoenixcontact.com/us/products/0708263



Screw set, for securing the header to the device wall, consists of an M3 x 10 screw, with a spring washer and a nut

### CP-PC RD - Coding profile

1701967

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





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#### SK 7,62/3,8:FORTL.ZAHLEN - Marker card

#### 0804549

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Marker card, white, labeled, horizontal: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 91  $\dots$  100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

#### SZS 0,6X3,5 - Screwdriver

#### 1205053

https://www.phoenixcontact.com/us/products/1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip



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PC 4/ 9-STF-7,62 - PCB connector

1828317

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PCB connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: PC 4/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 4, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

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