

1840612

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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, type of contact: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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, 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	1840612
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AAD
Product Key	AADWCA
Catalog Page	Page 518 (C-1-2013)
GTIN	4017918111762
Weight per Piece (including packing)	34.075 g
Weight per Piece (excluding packing)	32.203 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 4/GF
Number of positions	8
Pitch	7.62 mm
Number of connections	8
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	8
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
Type of contact	Pin

#### Interlock

Locking type	Screw locking
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)
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	1
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

### 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	7.62 mm
Width [w]	82.58 mm
Height [h]	30.5 mm
Length [I]	32 mm
Installed height	30.5 mm

### Mechanical tests

Specification

Test for conductor damage and slackening

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

IEC 60999-1:1999-11

#### 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
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#### Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Polarization and coding

Specification	IEC 60512-7:1993-08 (Polarization)
Result	Test passed

#### Visual inspection

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Specification	IEC 60512-1-1:2002-02
Result	Test passed



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#### Dimension check

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

### Electrical 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	1
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

### Environmental 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)
Sweep speed	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
Contact resistance R <sub>1</sub>	0.4 mΩ
Contact resistance R <sub>2</sub>	0.6 mΩ



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pecification	ISO 6988:1985-02
forrosive stress	KFW 0.2 S/1 cycle
hermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV
hight conditions	
bient conditions  Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve) -40 °C 70 °C
	, ,

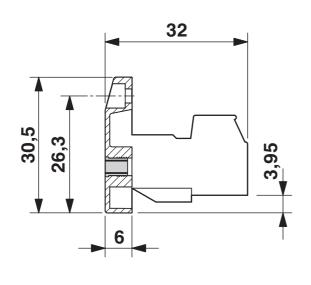


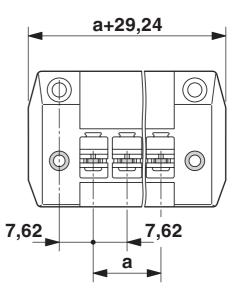
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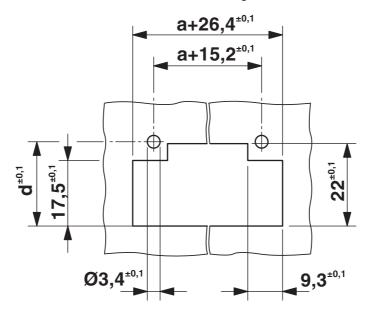
# **Drawings**

### Dimensional drawing





## 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

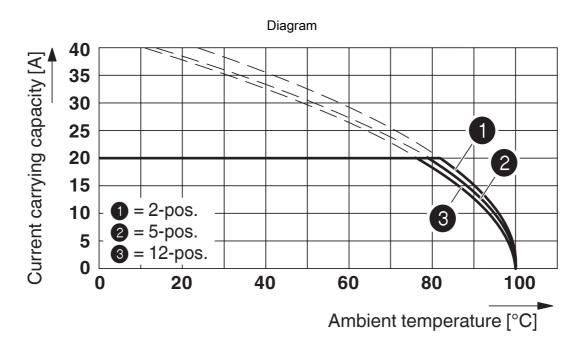
W=4: d=23.1

W=5: d=23.7



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



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# Approvals

•	CSA Approval ID: 13631				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		300 V	20 A	28 - 10	-
		300 V	20 A	28 - 10	-

EHC	EAC
LIIL	Approval ID: B.01687

e <b>911</b> us	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>
		300 V	35 A	30 - 10	-
		300 V	35 A	30 - 10	-
		600 V	5 A	30 - 10	-

DNV GL	
Approval ID: TAE00001EZ	



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# Classifications

UNSPSC 21.0

### **ECLASS**

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202
ETIM	
ETIM 8.0	EC002638
UNSPSC	

39121400



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# **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values



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#### Accessories

## 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/in/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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### CP-PC RD - Coding profile

1701967

https://www.phoenixcontact.com/in/products/1701967

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



#### DFK-MSTB-SS - Screw set

0708263

https://www.phoenixcontact.com/in/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



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#### PC 4/8-STF-7,62 - PCB connector

1828304

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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, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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, mounting: Screw flange, type of packaging: packed in cardboard

#### PC 5/8-STF1-7,62 - PCB connector

1777891

https://www.phoenixcontact.com/in/products/1777891



PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PC 5/..-STF1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Philipps recess with slotted Torx, conductor/PCB connection direction: 0 °, locking clip: -without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### SPC 5/8-STF-7,62 - PCB connector

1996184

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PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: SPC 5/..-STF, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### TSPC 5/8-STF-7,62 - PCB connector

1728264

https://www.phoenixcontact.com/in/products/1728264



PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 16, product range: TSPC 5/..-STF, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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