

https://www.phoenixcontact.com/us/products/1828278



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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: Sn, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, 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 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
- · Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- · Screwable flange for superior mechanical stability

### Commercial data

Item number	1828278
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADAAD
GTIN	4017918050504
Weight per piece (including packing)	25 g
Weight per piece (excluding packing)	24.183 g
Customs tariff number	85366990
Country of origin	DE



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### Technical data

### Product properties

Product type	PCB connector
Product family	PC 4/STF
Product line	COMBICON Connectors L
Туре	Standard
Number of positions	5
Pitch	7.62 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Mounting type	Screw flange

### Electrical properties

#### **Properties**

Nominal current $I_N$ 20 ANominal voltage $U_N$ 630 VContact resistance0.5 mΩRated voltage (III/3)400 VRated surge voltage (III/3)6 kVRated voltage (III/2)630 VRated surge voltage (III/2)6 kVRated voltage (III/2)1000 VRated surge voltage (III/2)6 kV	•	
Contact resistance       0.5 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 (III/2)       1000 V	Nominal current I <sub>N</sub>	20 A
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 (III/2) 1000 V	Nominal voltage U <sub>N</sub>	630 V
Rated surge voltage (III/3) 6 kV  Rated voltage (III/2) 630 V  Rated surge voltage (III/2) 6 kV  Rated voltage (III/2) 1000 V	Contact resistance	$0.5~\text{m}\Omega$
Rated voltage (III/2) 630 V Rated surge voltage (III/2) 6 kV Rated voltage (II/2) 1000 V	Rated voltage (III/3)	400 V
Rated surge voltage (III/2) 6 kV Rated voltage (II/2) 1000 V	Rated surge voltage (III/3)	6 kV
Rated voltage (II/2) 1000 V	Rated voltage (III/2)	630 V
	Rated surge voltage (III/2)	6 kV
Rated surge voltage (II/2) 6 kV	Rated voltage (II/2)	1000 V
	Rated surge voltage (II/2)	6 kV

### Connection data

### Connection technology

Туре	Standard
Connector system	COMBICON PC 4
Nominal cross section	4 mm²
Contact connection type	Socket

#### Interlock

Locking type	Screw locking mechanism
Mounting type	Screw flange
Tightening torque	0.3 Nm 0.7 Nm

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross-section rigid	0.2 mm² 4 mm²
Conductor cross-section flexible	0.2 mm² 4 mm²



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Conductor cross-section AWG	24 10
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 mm <sup>2</sup> 2.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> 1.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.0 mm
Stripping length	7 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm 0.6 Nm

### 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	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

### **Dimensions**

Dimensional drawing	h
Pitch	7.62 mm
Width [w]	53.32 mm
Height [h]	18.1 mm



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Length [I]	30.7 mm
lounting	
Flange	
Tightening torque	0.3 Nm 0.7 Nm
rightening to que	0.0 Mil 0.7 Mil
otes	
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.
echanical 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
	4 mm² / solid / > 60 N
	4 mm² / flexible / > 60 N
Insertion and withdrawal forces	
Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	5 N
Torque test	
Specification	IEC 60999-1:1999-11
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
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Result	Test passed
ronmental and real-life conditions	
bration 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
	Λ, ι αιο Σ αλο
urability test Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R <sub>1</sub>	0.5 mΩ
Contact resistance R <sub>2</sub>	0.6 mΩ
Insertion/withdrawal cycles	50
limatic test	
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV
hocks	
Specification	IEC 60068-2-27:2008-02
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)
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
ctrical tests	
Thermal test   Test group C	
Specification	IEC 60512-5-1:2002-02
Tested number of positions	12
nsulation resistance	UEO COE40 O 4-0000 CO
Specification	IEC 60512-3-1:2002-02



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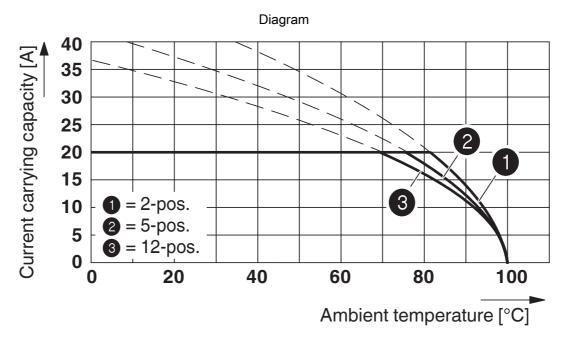
Specification	IEC 60664-1:2007-04
nsulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	5.5 mm
Rated insulation voltage (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



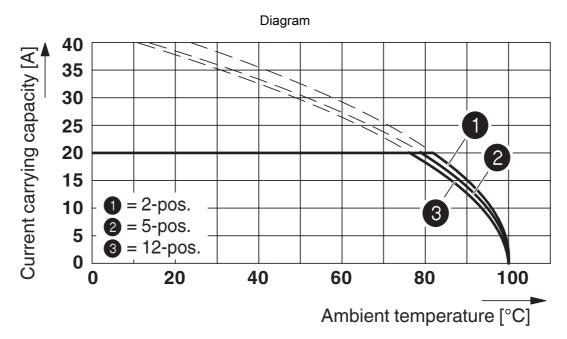
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### **Drawings**



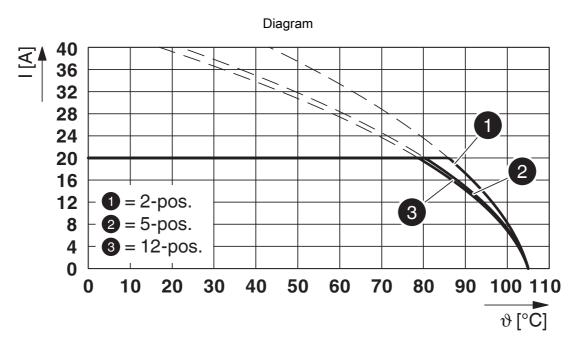
Type: PC 4/...-STF-7,62 with PC 4/...-G-7,62 and BF-PC 4



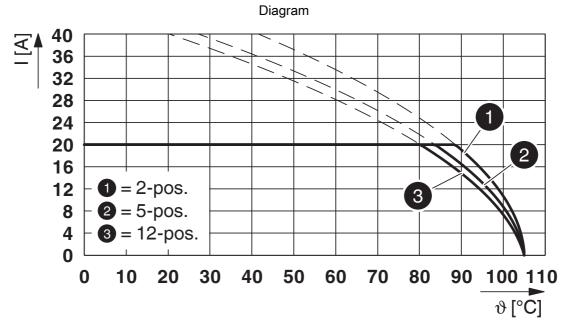
Type: PC 4/...-STF-7,62 with DFK-PC 4/...-GF-7,62



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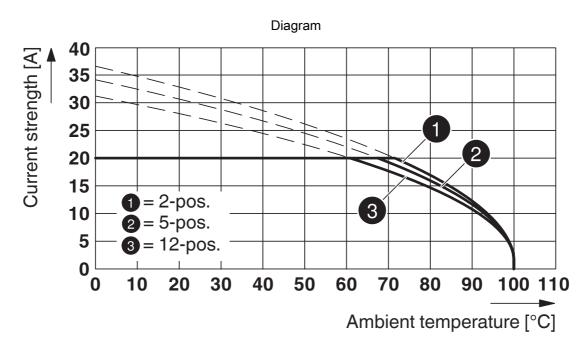
Type: PC 4/...-STF-7,62 with PC 5/...-GF-7,62



Type: PC 4/...-STF-7,62 with PC 5/...-GFU-7,62



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Type: PC 4/...-STF-7,62 with PCV 4/...-G-7,62 and BF-PC 4



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### **Approvals**

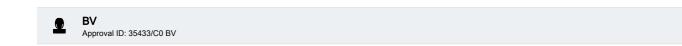
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V-1 P	SA oproval ID: 2355836				
		Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
В					
		300 V	20 A	28 - 10	-
С					
		300 V	20 A	28 - 10	-

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>
В				
	300 V	30 A	30 - 10	-
С				
	300 V	30 A	30 - 10	-
D				
	600 V	5 A	30 - 10	-

DNV GL Approval ID: TAE00001EZ







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### Classifications

#### **ECLASS**

	ECLASS-13.0	27460202	
	ECLASS-15.0	27460202	
ΕΊ	⁻IM		
	ETIM 9.0	EC002638	
UNSPSC			
	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	0.159 kg CO2e

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