Printed-circuit board connector - PC 16/ 2-ST-10,16BKT20LBDWH1,2 - 1016985

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The figure shows a 5-pos. version of the product

PCB connector, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², number of positions: 2, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: black, contact surface: Tin

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
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve

Key Commercial Data

Packing unit	25 pc
Minimum order quantity	50 pc
GTIN	4 055626 499338
GTIN	4055626499338

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 16
Type of contact	Female connector
Range of articles	PC 16/..-ST
Pitch	10.16 mm
Number of positions	2
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted Torx® (T20L)

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Technical data

Item properties

Screw thread	M4
Number of levels	1
Number of connections	2
Number of potentials	2

Electrical parameters

Nominal current	76 A
Nom. voltage	1000 V
Rated voltage	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.75 mm² ... 16 mm²
Conductor cross section flexible	0.75 mm² ... 16 mm²
Conductor cross section AWG / kcmil	18 ... 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm² ... 16 mm² (Only in connection with CRIMPFOX 16 S)
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm² ... 10 mm² (Only in connection with CRIMPFOX 16 S)
2 conductors with same cross section, solid	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible	0.75 mm² ... 6 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 6 mm²
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	12 mm
Torque	1.7 Nm ... 1.8 Nm

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	Selective coating
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface terminal point (middle layer)	Nickel flash (Ni flash)
Metal surface contact area (top layer)	Silver (2 - 4 µm Ag)
Metal surface contact area (middle layer)	Nickel flash (Ni flash),

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Material data - housing

Housing color	black (9005)
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 for the product

Caption	The figure shows the 3-pos. version
Length [l]	41.5 mm
Width [w]	20.16 mm
Height [h]	27.8 mm
Pitch	10.16 mm
Height (without solder pin)	28 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	25
Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.75 mm² / solid / > 30 N
	0.75 mm² / flexible / > 30 N
	16 mm² / solid / > 100 N
	16 mm² / flexible / > 100 N

Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02

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Mechanical tests according to standard

Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	50
Insertion strength per pos. approx.	17 N
Withdraw strength per pos. approx.	17 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	20 N

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

Current carrying capacity / derating curves

Caption	Type: PC 16/..-ST-10,16 with PC 6-16/..-G1-10,16
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	17 N
Withdraw strength per pos. approx.	17 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	0.22 mΩ
Insertion/withdrawal cycles	50
Contact resistance R_2	0.24 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	> 17 TΩ

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Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	9
Conductor cross section	16 mm²
Test current	57 A DC
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

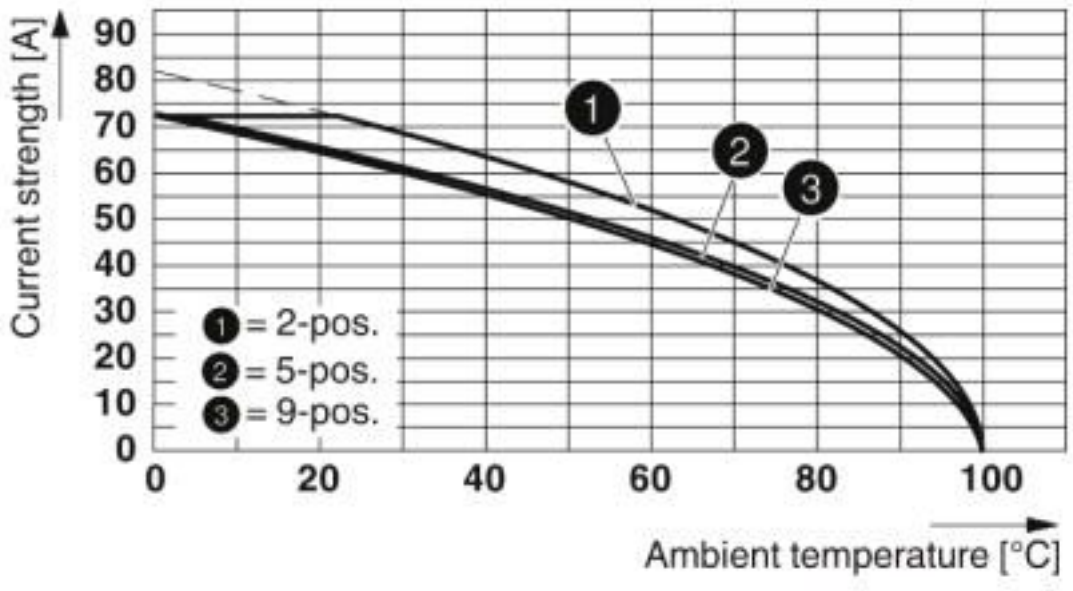
Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

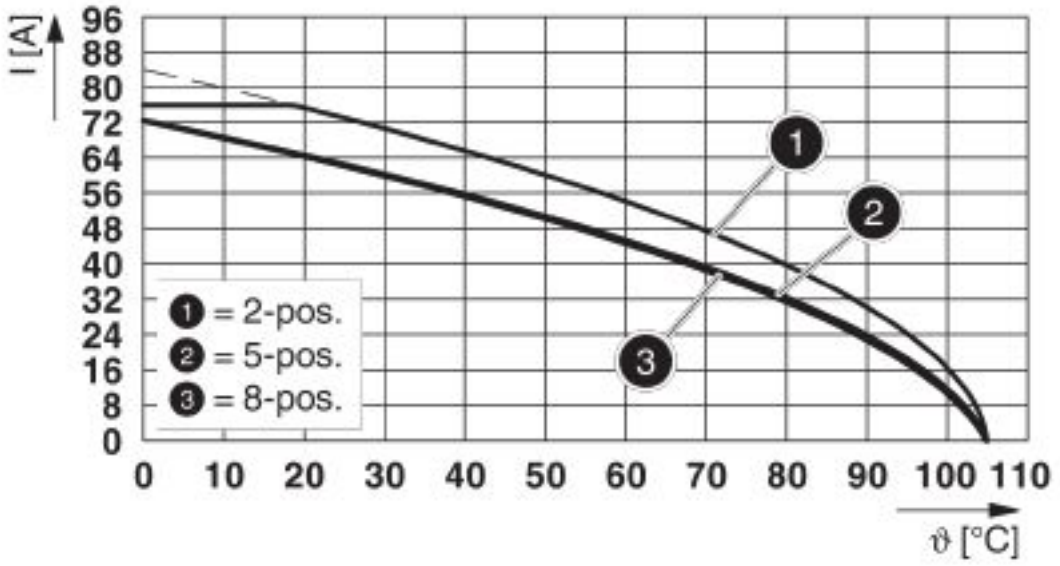
Printed-circuit board connector - PC 16/ 2-ST-10,16BKT20LBDWH1,2 - 1016985

Diagram



Type: PC 16/..-ST-10,16 with PC 6-16/..-G1-10,16

Diagram



Type: PC 16/...-ST-10,16 with PC 6-16/...-G-10,16

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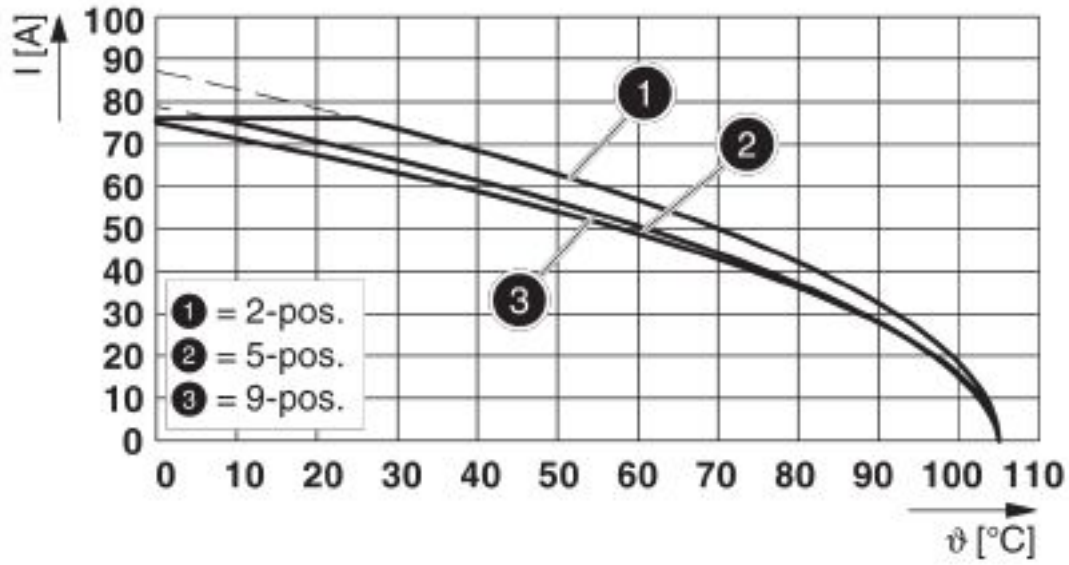
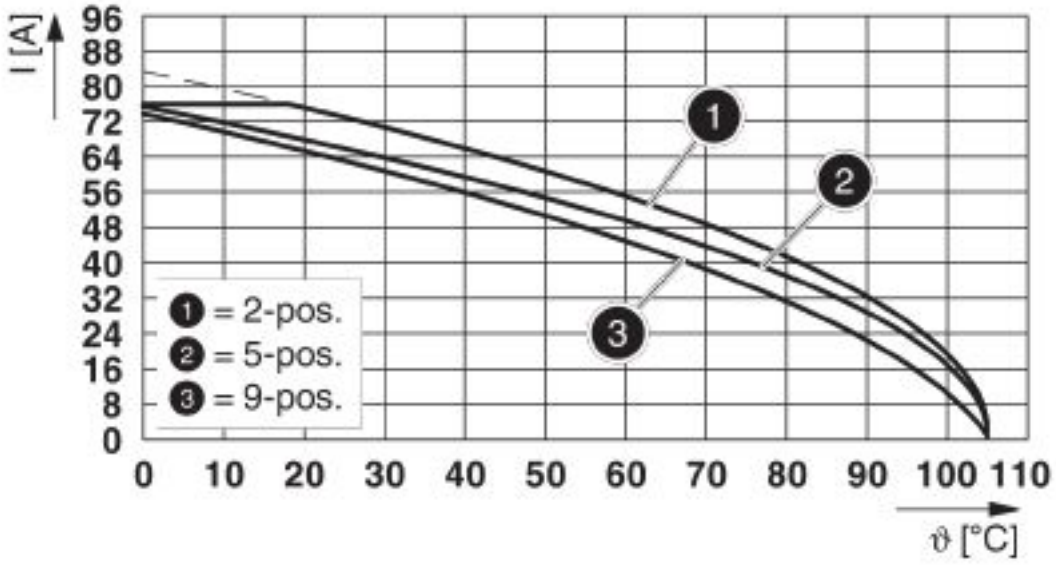
Diagram



Type: PC 16/...-ST-10,16 with PCV 6-16/...-G-10,16

Diagram



Type: PC 16/...-ST-10,16 with PCV 6-16/...-G1-10,16

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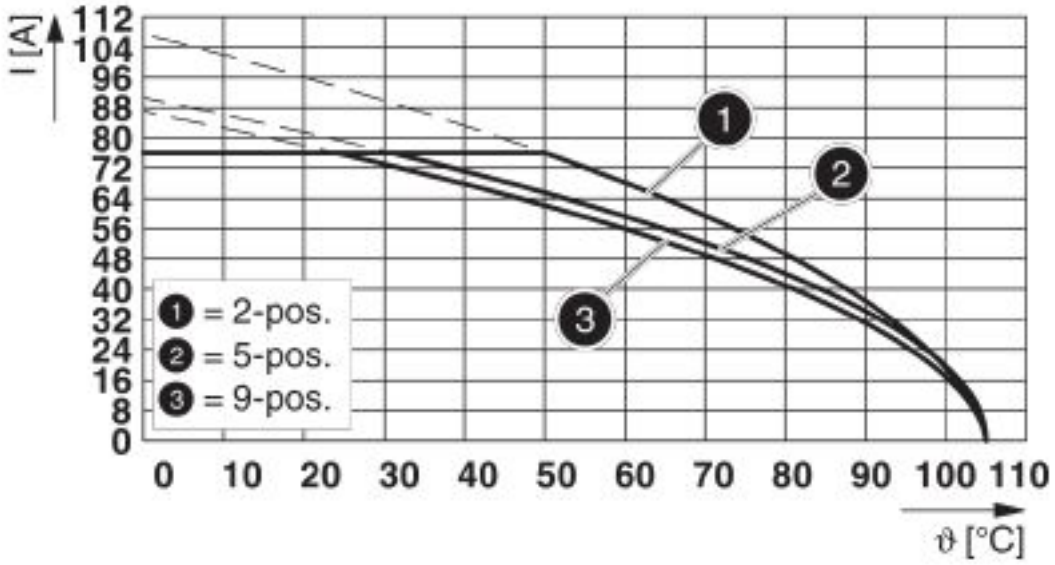
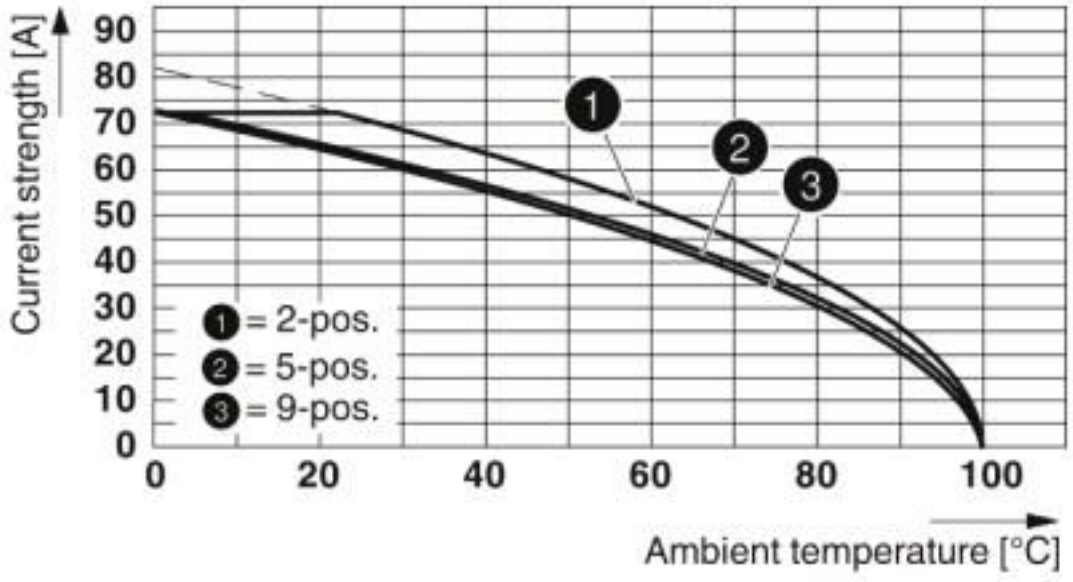
Diagram



Type: PC 16/...-ST-10,16 with industrial PC 16/...-ST-10,16

Diagram



Type: PC 16/...-ST-10,16 with PC 6-16/...-G1-10,16 HT BK R...

Classifications

eCl@ss

eCl@ss 10.0.1	27440309

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Classifications

eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC	EAC	B.01687

Accessories

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Coding element

Coding profile - CP-PC RD - 1701967

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

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Accessories

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Crimping pliers - CRIMPFOX 16 S - 1207983

Crimping pliers for ferrules up to 16 mm²

Screwdriver tools

Screwdriver - SZS 1,0X5,5 VDE - 1209114

Screwdriver, slot-headed, VDE insulated, size: 1.0 x 5.5 x 125 mm, 2-component grip, with non-slip grip

Terminal marking

Marker strip - SK 5,0 WH:REEL - 0805221

Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5#mm, Number of individual labels: 90000

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