# Printed-circuit board connector - PC 16/ 3-ST-10,16 BD:R,Y,B - 1700657

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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: 3, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, color: green

## 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 |
| GTIN | 4 046356 495646 |
| GTIN | 4046356495646 |

## 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 | 3 |
| Connection method | Screw connection with tension sleeve |
| Drive form screw head | Slotted (L) |
| Locking | without |
| Number of levels | 1 |

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## Technical data

### Item properties

| | |
|---|---|
| Number of connections | 3 |
| Number of potentials | 3 |

### 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), |

### Material data - housing

| | |
|---|---|
| Housing color | green (6021) |
| Insulating material | PA |

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## Technical data

### Material data - housing

| | |
|---|---|
| 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 ] | 30.32 mm |
| Height [ h ] | 27.8 mm |
| Pitch | 10.16 mm |
| Height (without solder pin) | 27.8 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 examination | Test passed IEC 60512-1-1:2002-02 |
| Dimensional test | Test passed IEC 60512-1-2:2002-02 |
| Resistance of marking | Test passed IEC 60068-2-70:1995-12 |
| Result | Test passed |
| Specification | IEC 60512-13-2:2006-02 |

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## Technical data

### Mechanical tests according to standard

| | |
|---|---|
| No. of cycles | 50 |
| Insertion strength per pos. approx. | 17 N |
| Withdraw strength per pos. approx. | 17 N |
| Polarization and coding | Test passed IEC 60512-13-5:2006-02 |
| Result | Test passed |
| Specification | 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

| | |
|---|---|
| Specification | IEC 61984 |

### 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 |

### 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 |

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## Technical data

### 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)

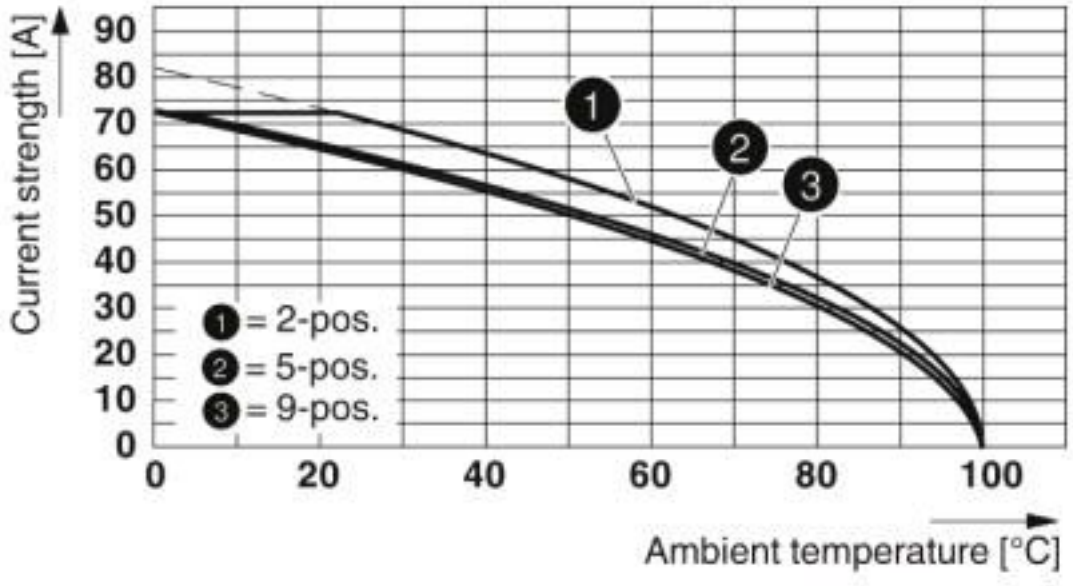
| | |
|---|---|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

### 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

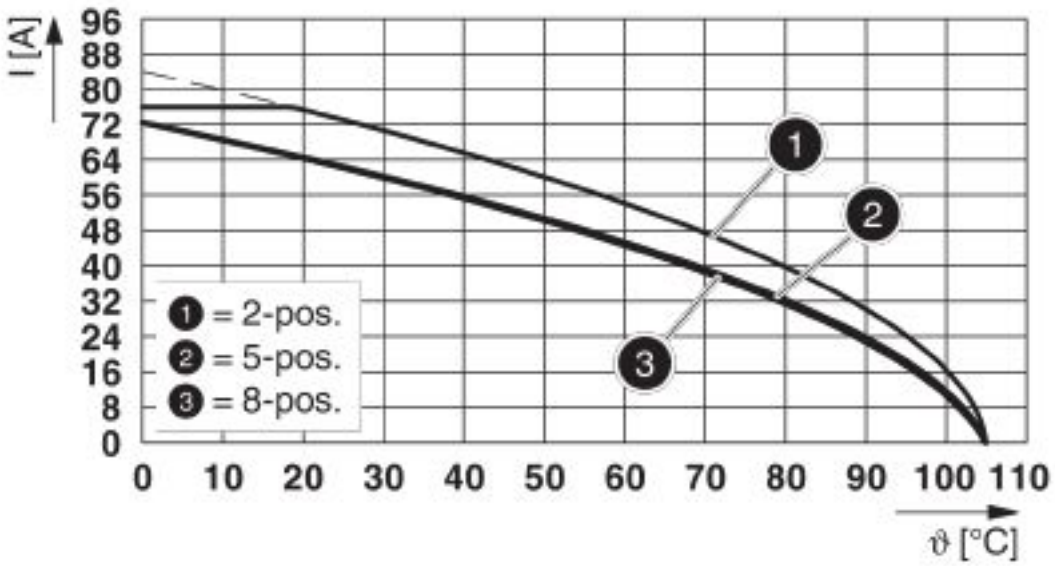
Diagram




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

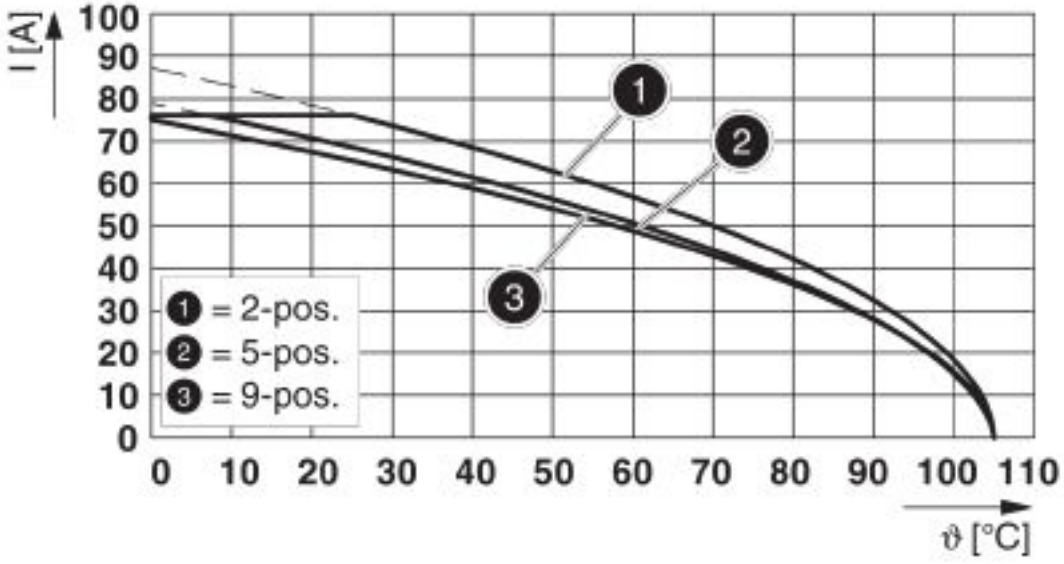
# Printed-circuit board connector - PC 16/ 3-ST-10,16 BD:R,Y,B - 1700657

Diagram




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

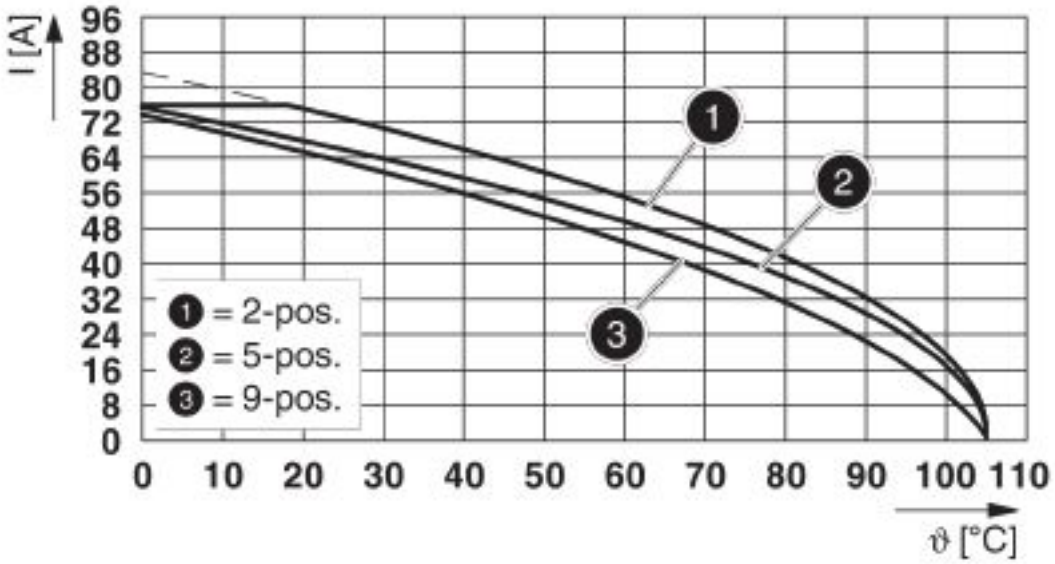
Diagram




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

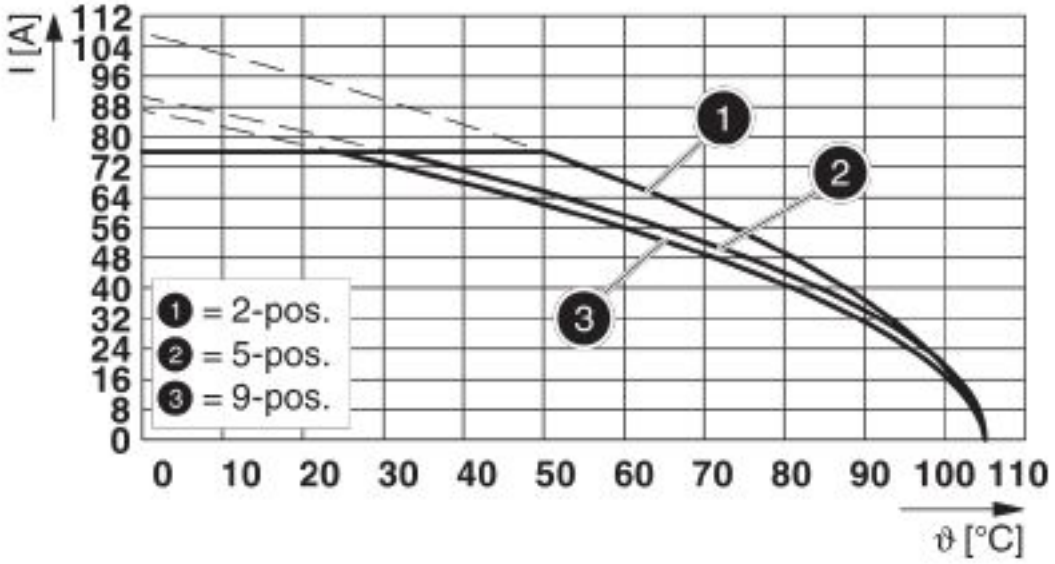
# Printed-circuit board connector - PC 16/ 3-ST-10,16 BD:R,Y,B - 1700657

Diagram




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

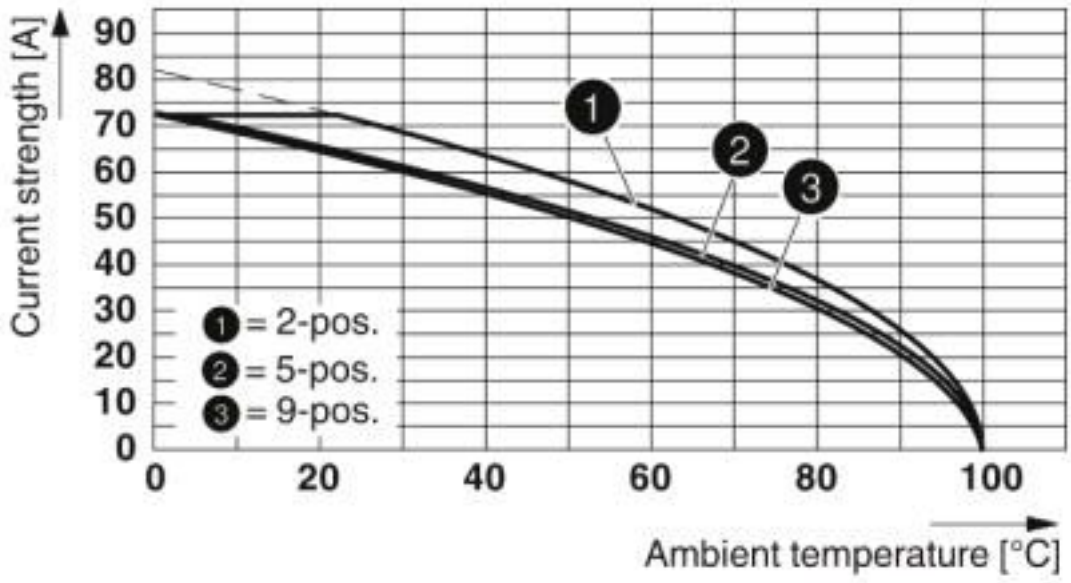
Diagram




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

# Printed-circuit board connector - PC 16/ 3-ST-10,16 BD:R,Y,B - 1700657

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 |
| 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 3.0 | EC001121 |
| ETIM 4.0 | EC002638 |
| ETIM 5.0 | EC002638 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

### UNSPSC

| | |
|---|---|
| UNSPSC 6.01 | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11 | 39121409 |
| UNSPSC 12.01 | 39121409 |

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## Classifications

### UNSPSC

| | |
|---|---|
| UNSPSC 13.2 | 39121409 |
| UNSPSC 18.0 | 39121409 |
| UNSPSC 19.0 | 39121409 |
| UNSPSC 20.0 | 39121409 |
| UNSPSC 21.0 | 39121409 |

## Approvals

### Approvals

Approvals

SEV / EAC / cULus Recognized / IECEE CB Scheme

Ex Approvals

### Approval details

SEV https://www.eurofins.ch/de/ IK-4468-M1

| | |
|---|---|
| Nominal voltage UN | 1000 V |
| Nominal current IN | 76 A |
| mm²/AWG/kcmil | 16 |

EAC B.01687

cULus Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-20040202

| | B | C |
|---|---|---|
| Nominal voltage UN | 600 V | 600 V |
| Nominal current IN | 55 A | 55 A |
| mm²/AWG/kcmil | 20-6 | 20-6 |

# Printed-circuit board connector - PC 16/ 3-ST-10,16 BD:R,Y,B - 1700657

## Approvals

| | | | |
|---|---|---|---|
| IECEE CB Scheme | CB scheme | http://www.iecee.org/ | CH-10653-M1 |

| | |
|---|---|
| Nominal voltage UN | 1000 V |
| Nominal current IN | 76 A |
| mm²/AWG/kcmil | 16 |



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