

TPC 16/ 2-ST-10,16 - PCB connector



1715170

<https://www.phoenixcontact.com/us/products/1715170>

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The figure shows the 5-position version of the product

PCB TWIN plug, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TPC 16/..-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 50 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting method: without, 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
- Potentials can be easily looped through – ideal for BUS applications

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1715170 |
| Packing unit | 20 pc |
| Minimum order quantity | 20 pc |
| Sales key | AA05 |
| Product key | AAEAAD |
| GTIN | 4046356102940 |
| Weight per piece (including packing) | 8.8 g |
| Weight per piece (excluding packing) | 8.6 g |
| Customs tariff number | 85366990 |
| Country of origin | IN |

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Technical data

Product properties

| | |
|-----------------------|------------------------|
| Product type | PCB TWIN plug |
| Product family | TPC 16/...-ST |
| Product line | COMBICON Connectors XL |
| Type | Standard |
| Number of positions | 2 |
| Pitch | 10.16 mm |
| Number of connections | 4 |
| Number of rows | 1 |
| Number of potentials | 2 |
| Mounting type | without |

Electrical properties

Properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 76 A |
| Nominal voltage U_N | 1000 V |
| Rated voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| | |
|-------------------------|--------------------|
| Type | Standard |
| Connector system | COMBICON PC 16 |
| Nominal cross section | 16 mm ² |
| Contact connection type | Socket |

Interlock

| | |
|---------------|---------|
| Locking type | without |
| Mounting type | without |

Conductor connection

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Conductor/PCB connection direction | 50 ° |
| Conductor cross-section rigid | 0.75 mm ² ... 16 mm ² |
| Conductor cross-section flexible | 0.75 mm ² ... 16 mm ² |
| Conductor cross-section AWG | 18 ... 6 |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 0.5 mm ² ... 16 mm ² |

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| | |
|---|--|
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.5 mm ² ... 16 mm ² (Only in connection with CRIMPFOX 16 S) |
| 2 conductors with same cross section, rigid | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.5 mm ² ... 4 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 6 mm ² |
| Cylindrical gauge a x b / diameter | - / 6.4 mm |
| Stripping length | 18 mm |
| Drive form screw head | Slotted (L) |
| Tightening torque | 1.7 Nm ... 1.8 Nm |

Material specifications

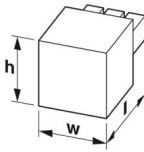
Material data - contact

| | |
|--|--|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Silver-plated strip |
| Metal surface terminal point (top layer) | Silver (4 µm - 8 µm Ag) |
| Metal surface contact area (top layer) | Silver (4 µm - 8 µm Ag) |

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 |  |
| Pitch | 10.16 mm |
| Width [w] | 20.16 mm |
| Height [h] | 51.4 mm |
| Length [l] | 54.9 mm |

Notes

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| | |
|--------------------|--|
| 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. |
|--------------------|--|

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Ambient 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 |

Electrical tests

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) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 12.5 mm |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 8 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 |

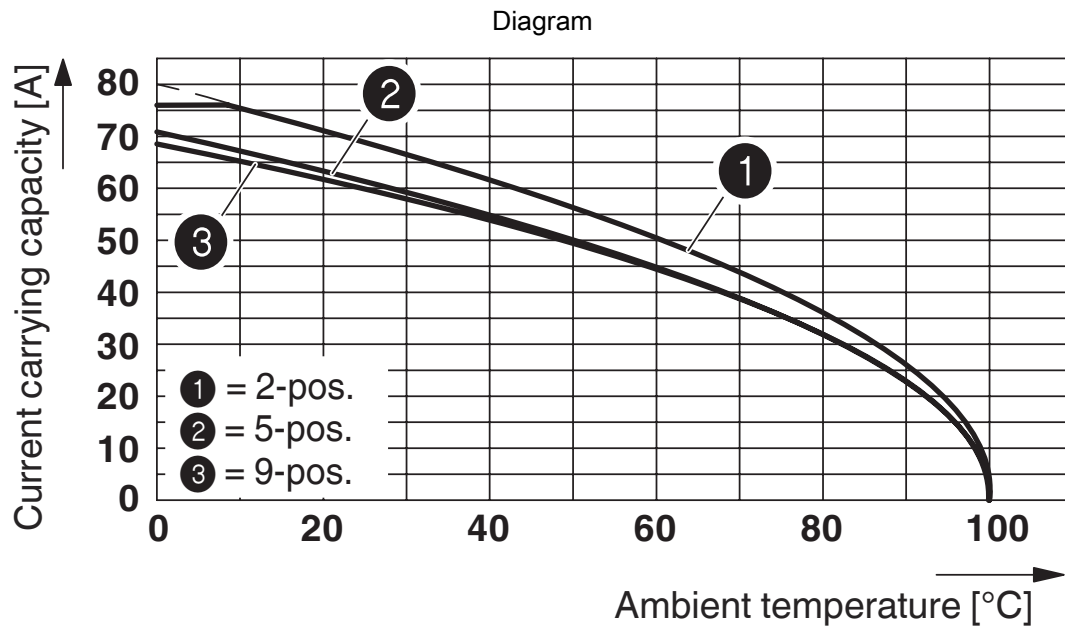
Packaging specifications

| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

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Drawings



Derating curve for: TPC 16/....-ST-10,16 with PC 6-16/...-G-10,16

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1715170>

|  cULus Recognized Approval ID: E60425-20040202 | | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|---|--|-----------------------|-----------------------|-------------------|-----------------------------|
| B | | 600 V | 60 A | 20 - 4 | - |
| C | | 600 V | 60 A | 20 - 4 | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460202 |
| ECLASS-15.0 | 27460202 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002638 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 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 | f581eebd-a44a-4b00-9298-d160dcc4fb84 |

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