

Printed-circuit board connector - PC 5/ 5-ST2-7,62 - 1777972

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PCB connector, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm², number of positions: 5, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, color: green, 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
- ✓ 600 V UL approval in the smallest of dimensions



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 50 pc |
| GTIN |  4 046356 523110 |
| GTIN | 4046356523110 |

Technical data

Item properties

| | |
|---------------------------|---|
| Brief article description | Printed-circuit board connector |
| Plug-in system | POWER COMBICON 5 |
| Type of contact | Female connector |
| Range of articles | PC 5/..-ST2 |
| Pitch | 7.62 mm |
| Number of positions | 5 |
| Connection method | Screw connection with tension sleeve |
| Drive form screw head | Philipps recess with slotted Torx (H1L) |
| Screw thread | M3 |
| Locking | without |
| Number of levels | 1 |

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Technical data

Item properties

| | |
|-----------------------|---|
| Number of connections | 5 |
| Number of potentials | 5 |

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 41 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 | 0.2 mm ² ... 10 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 6 mm ² |
| Conductor cross section AWG / kcmil | 24 ... 10 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 6 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 4 mm ² |
| 2 conductors with same cross section, solid | 0.2 mm ² ... 2.5 mm ² |
| 2 conductors with same cross section, flexible | 0.2 mm ² ... 4 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| Cylindrical gauge a x b / diameter | 3.6 mm x 3.1 mm / 3.4 mm |
| Stripping length | 10 mm |
| Torque | 0.5 Nm ... 0.8 Nm ($\leq 4 \text{ mm}^2$ is 0.5 Nm to 0.6 Nm, $> 4 \text{ mm}^2$ is 0.7 Nm to 0.8 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 | 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

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

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Technical data

Material data - housing

| | |
|---|--------|
| 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

| | |
|-----------------------------|----------|
| Length [l] | 35.25 mm |
| Width [w] | 38.1 mm |
| Height [h] | 19.7 mm |
| Pitch | 7.62 mm |
| Height (without solder pin) | 19.7 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| 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 | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 10 mm ² / solid / > 90 N |
| | 6 mm ² / flexible / > 80 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 |
| 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. | 8 N |
| Withdraw strength per pos. approx. | 6 N |

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Mechanical tests according to standard

| | |
|--------------------------|------------------------|
| 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) | 5 mm |
| Minimum creepage distance value (II/2) | 5 mm |

Current carrying capacity / derating curves

| | |
|------------------|--|
| Caption | Type: PC 5/...-ST2-7,62 with PC 4/...-G-7,62 Conductor cross section: 4 mm ² |
| 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. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Polarization when inserted requirement >20 N | Test passed |
| Contact holder in insert requirements >20 N | Test passed |

Durability tests (B)

| | |
|--|---------------------|
| Specification | IEC 60512-5:1992-08 |
| Contact resistance R ₁ | 0.45 mΩ |
| Insertion/withdrawal cycles | 50 |
| Contact resistance R ₂ | 0.6 mΩ |
| Impulse withstand voltage at sea level | 7.3 kV |
| Power-frequency withstand voltage | 3.31 kV |
| Insulation resistance, neighboring positions | >10 ¹² Ω |

Thermal tests (C)

| | |
|---|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 12 |
| Conductor cross section | 6 mm ² |
| Test current | 32 A |
| Upper limiting temperature requirements <100 °C | Test passed |

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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 | 7.3 kV |
| Power-frequency withstand voltage | 3.31 kV |

Environmental and durability tests (E)

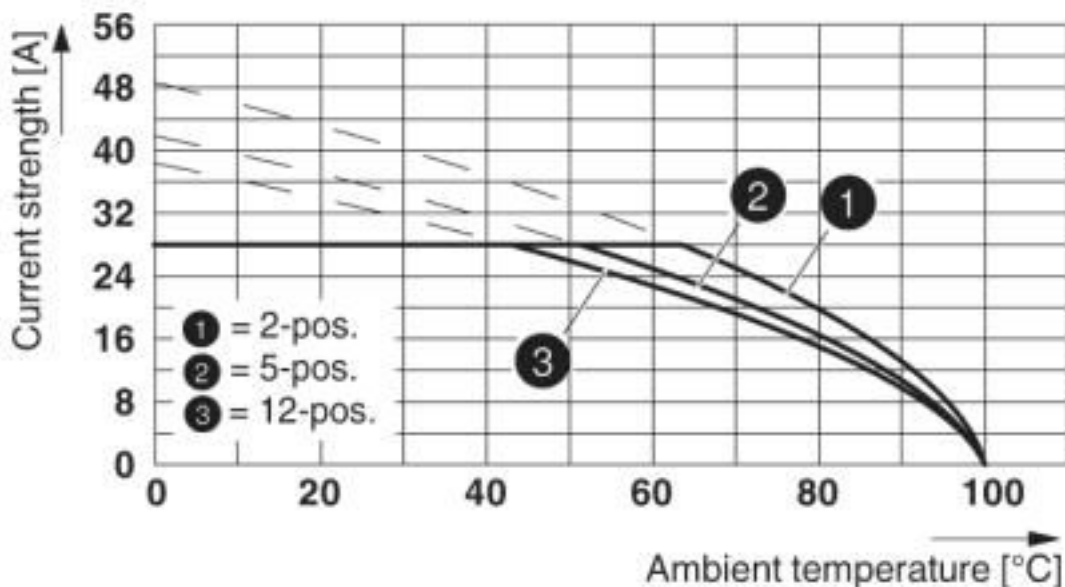
| | |
|---------------------------------------|--|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Back of hand safety with IP10 access probe |

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

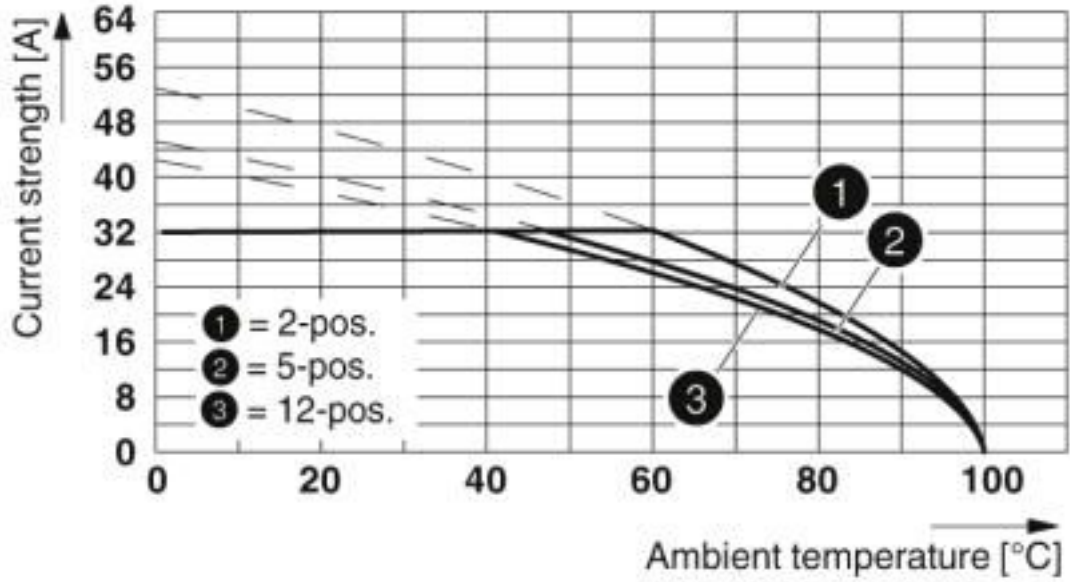
Diagram



Type: PC 5/...-ST2-7,62 with PC 4/...-G-7,62
 Conductor cross section: 4 mm²

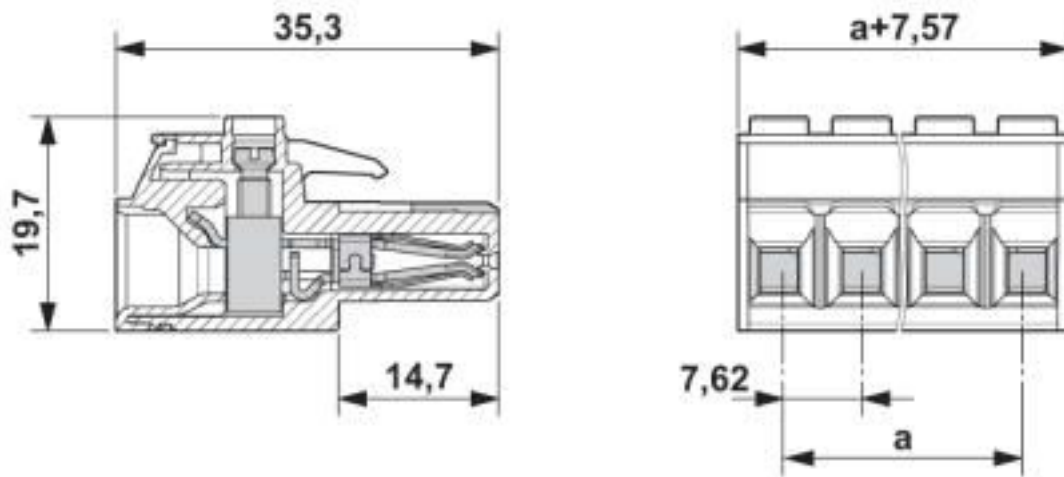
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Diagram



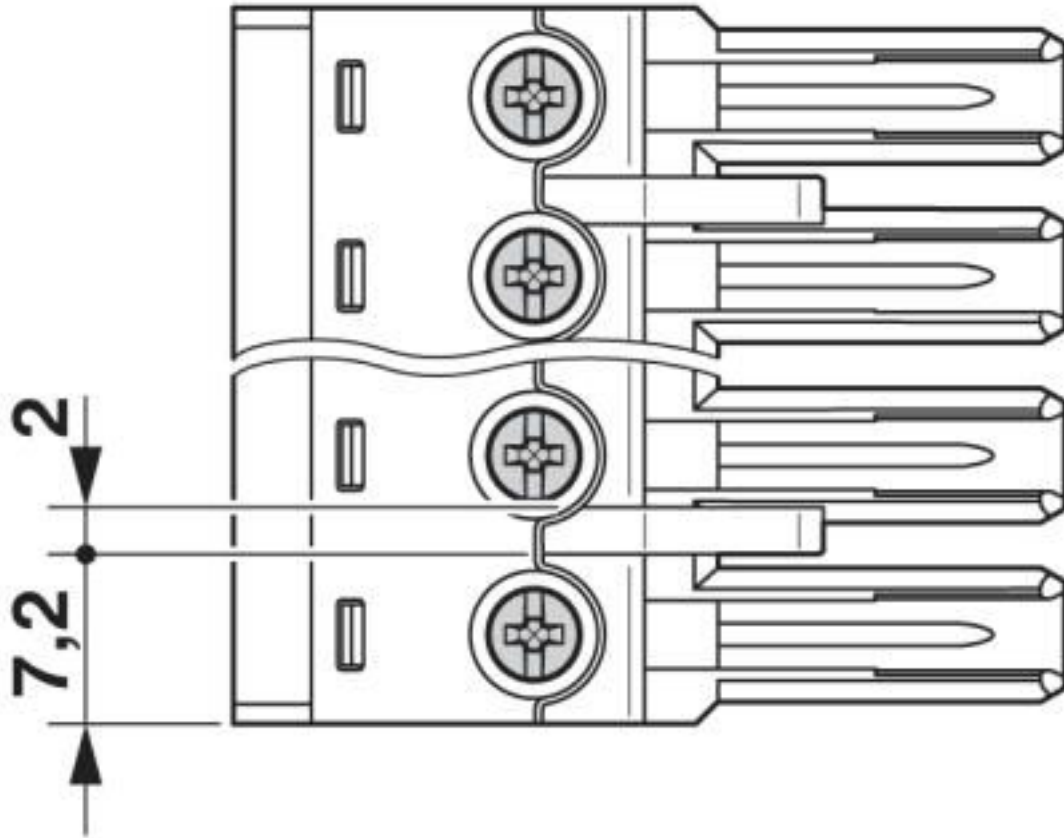
Type: PC 5/...-ST2-7,62 with PC 4/...-G-7,62
Conductor cross section: 6 mm²

Dimensional drawing



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Dimensional drawing



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 | EC001641 |
| ETIM 5.0 | EC002637 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

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Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11 | 39121409 |
| UNSPSC 12.01 | 39121409 |
| UNSPSC 13.2 | 39121409 |
| UNSPSC 18.0 | 39121409 |
| UNSPSC 19.0 | 39121409 |
| UNSPSC 20.0 | 39121409 |
| UNSPSC 21.0 | 39121409 |

Approvals

Approvals


Approvals

EAC / cULus Recognized

Ex Approvals

Approval details

| | | |
|-----|---|---------|
| EAC |  | B.01687 |
|-----|---|---------|

| | | | |
|----------------------------|---|---|-----------------|
| cULus Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19920722 |
| | B | C | |
| Nominal voltage UN | 600 V | 600 V | |
| Nominal current IN | 41 A | 41 A | |
| mm ² /AWG/kcmil | 24-8 | 24-8 | |

Accessories

Accessories

Coding element

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Accessories

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



Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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