

PCB connector - PC 4/ 9-STF-7,62

1828317

<https://www.phoenixcontact.com/de/produkte/1828317>

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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: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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, mounting: 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

PCB connector - PC 4/ 9-STF-7,62



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Commercial Data

| | |
|--------------------------------------|---------------------------|
| Item number | 1828317 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales Key | E1 - Leiterplattenanschl. |
| Product Key | AADAAD |
| Catalog Page | Page 513 (C-1-2013) |
| GTIN | 4017918050542 |
| Weight per Piece (including packing) | 40,92 g |
| Weight per Piece (excluding packing) | 39,392 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

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Technical Data

Product properties

| | |
|-----------------------|-----------------------|
| Type | Standard |
| Product line | COMBICON Connectors L |
| Product type | PCB plug |
| Number of positions | 9 |
| Pitch | 7.62 mm |
| Number of connections | 9 |
| Number of rows | 1 |
| Mounting flange | Screw flange |
| Number of potentials | 9 |

Electrical properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 20 A |
| Nominal voltage U_N | 630 V |
| Pollution degree | 3 |
| 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 |

Connection data

Connection technology

| | |
|-----------------------|-------------------|
| Type | Standard |
| Connector system | COMBICON PC 4 |
| Nominal cross section | 4 mm ² |
| Type of contact | Female connector |

Interlock

| | |
|-----------------|-------------------|
| Locking type | Screw locking |
| Mounting flange | Screw flange |
| Torque | 0.3 Nm ... 0.7 Nm |

Conductor connection

| | |
|---|--|
| Connection method | Screw connection with tension sleeve |
| Conductor/PCB connection direction | 0 ° |
| Conductor cross section solid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 10 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 4 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 4 mm ² |

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| | |
|---|--|
| 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 ... 1.5 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 | 0.5 mm ² ... 2.5 mm ² |
| Cylindrical gauge a x b / diameter | 3.6 mm x 3.1 mm / 3.0 mm |
| Stripping length | 7 mm |
| Torque | 0.5 Nm ... 0.6 Nm |

Material specifications

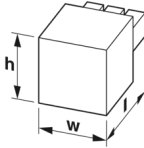
Material data - contact

| | |
|--|--|
| 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

| | |
|---|--------------|
| Housing color | 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 | 7.62 mm |
| Width [w] | 83.8 mm |
| Height [h] | 18.1 mm |
| Length [l] | 30.7 mm |
| Installed height | 18.1 mm |

Mounting

| | |
|-----------------------|-------------|
| Drive form screw head | Slotted (L) |
|-----------------------|-------------|

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Flange

| | |
|-------------------|-------------------|
| Tightening torque | 0.3 Nm ... 0.7 Nm |
|-------------------|-------------------|

Notes

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

Mechanical 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 setpoint/actual value | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 4 mm ² / solid / > 60 N |
| | 4 mm ² / flexible / > 60 N |

Insertion and withdrawal forces

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

Contact holder in insert

| | |
|---|------------------------|
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed |

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

| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

Environmental and real-life conditions

Vibration test

| | |
|------------------------|------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Sweep speed | 5g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Durability test

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 7.3 kV |
| Contact resistance R ₁ | 0.5 mΩ |
| Contact resistance R ₂ | 0.6 mΩ |
| Insertion/withdrawal cycles | 50 |

Climatic test

| | |
|-----------------------------------|---|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 3.31 kV |

Shocks

| | |
|-----------------|-----------------------------------|
| 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.) |

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

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 12 |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

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Air clearances and creepage distances |

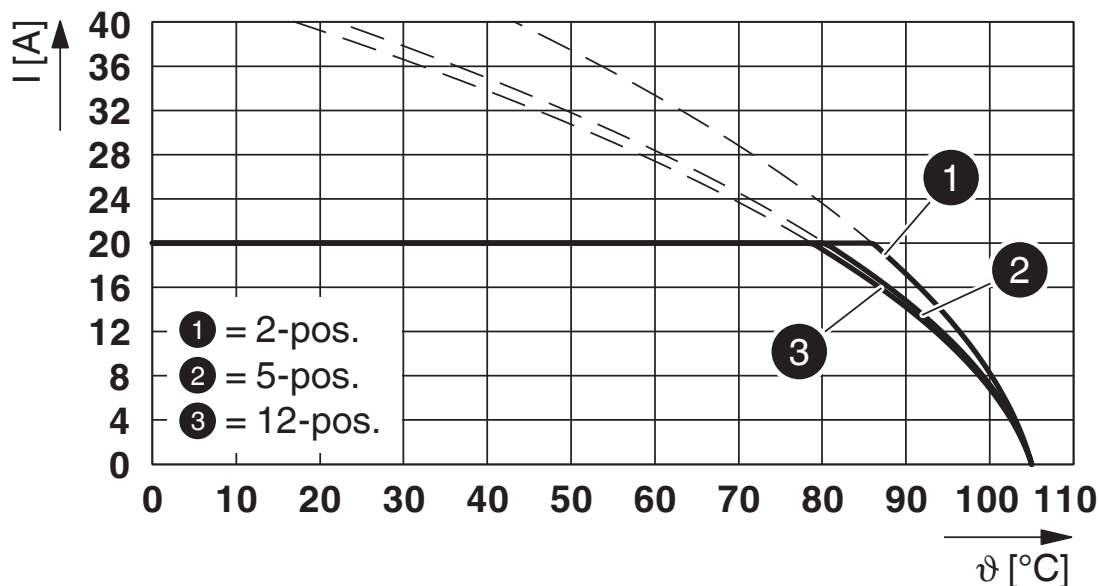
| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 400 V |
| Rated surge voltage (III/3) | 6 kV |
| minimum clearance value - non-homogenous field (III/3)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

Packaging specifications

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

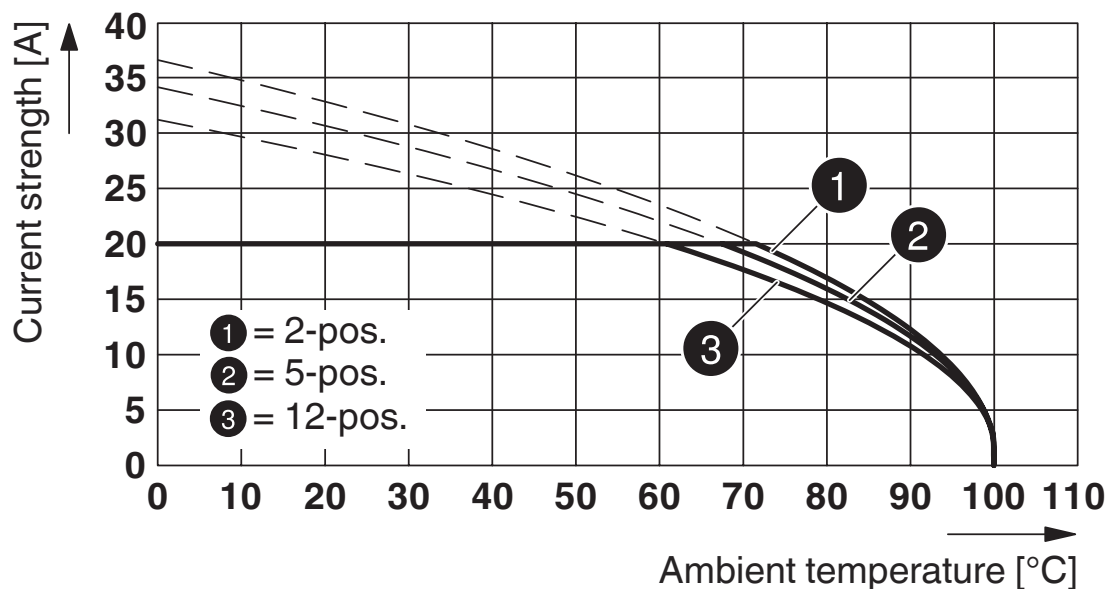
Drawings

Diagram



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

Diagram



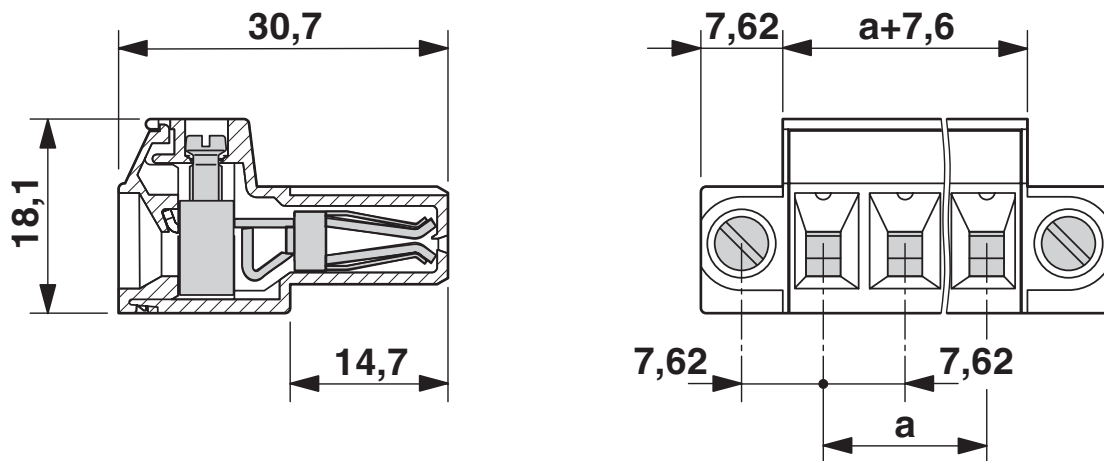
Type: PC 4/...-STF-7,62 with PCV 4/...-G-7,62 and BF-PC 4

PCB connector - PC 4/ 9-STF-7,62

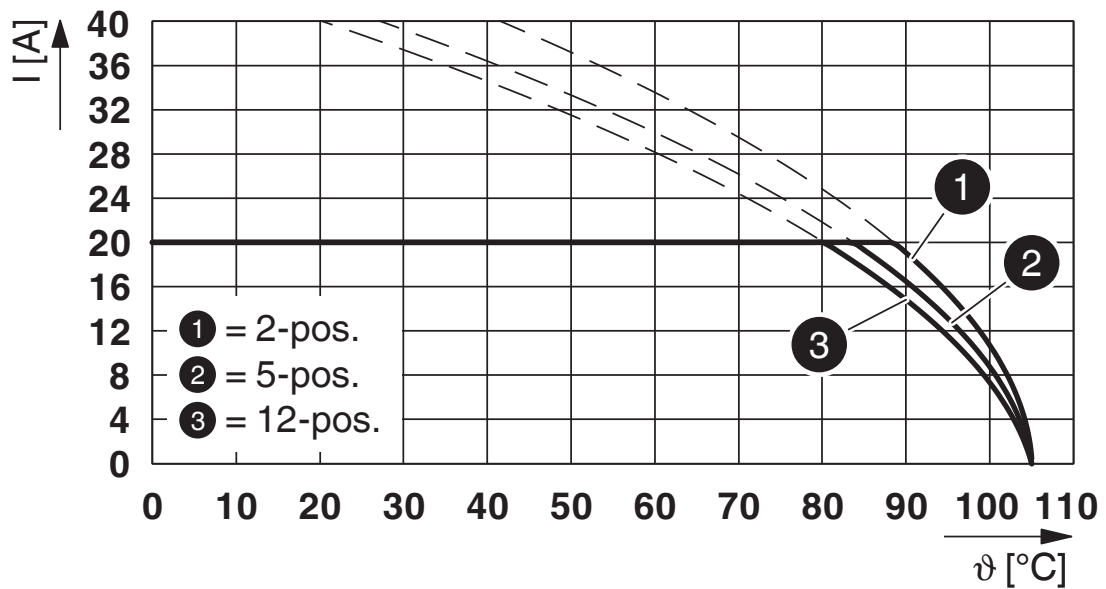
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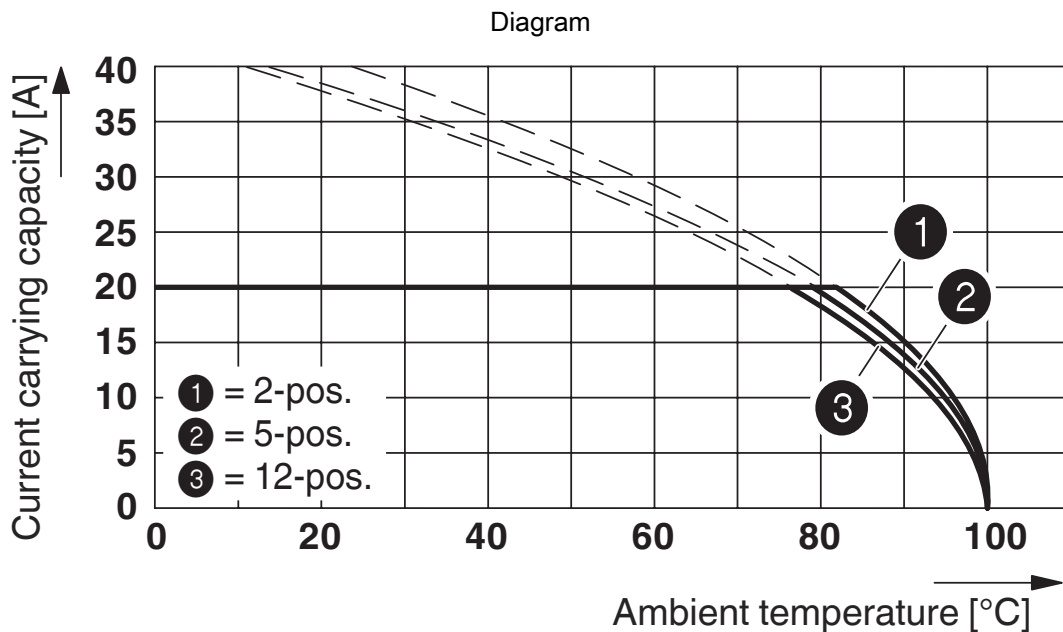
Dimensional drawing



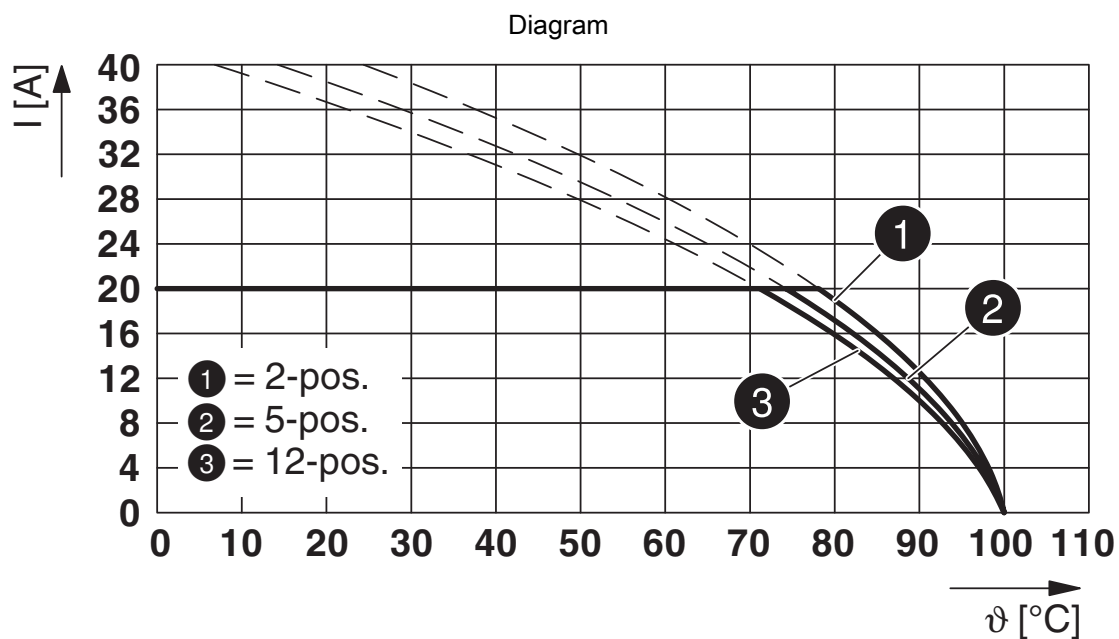
Diagram



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



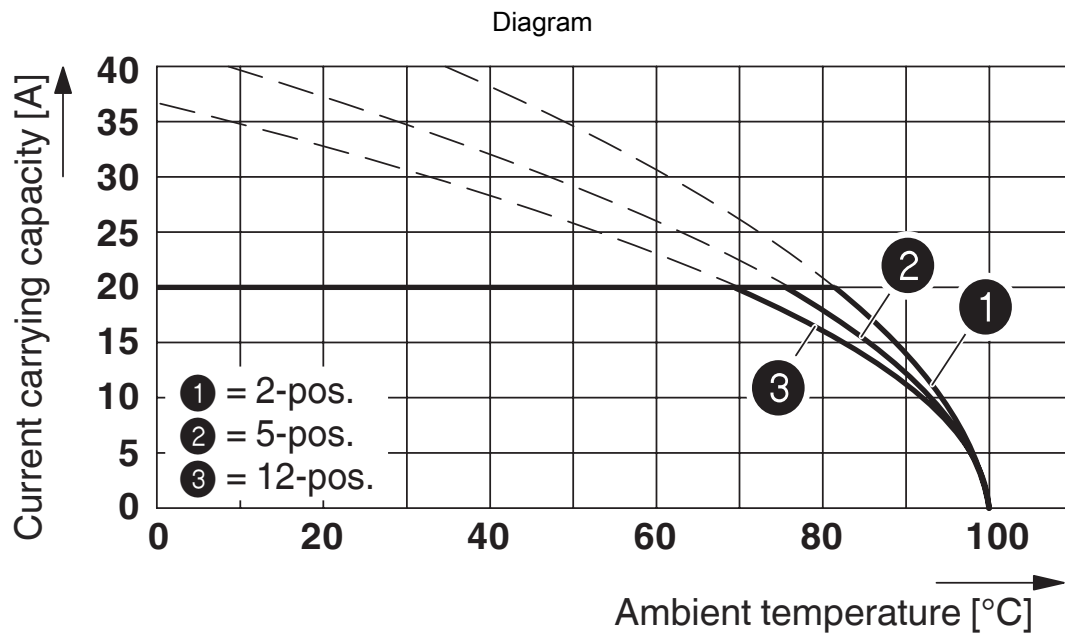
Type: PC 4/...-STF-7,62 with DFK-PC 4/...-GF-7,62



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

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


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Approvals

|  CSA Approval ID: 13631 | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | 300 V | 20 A | 28 - 10 | - |
| Use group C | 300 V | 20 A | 28 - 10 | - |

|  EAC Approval ID: B.01687 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

|  cULus Recognized Approval ID: E60425-19920722 | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | 300 V | 30 A | 30 - 10 | - |
| Use group C | 300 V | 30 A | 30 - 10 | - |
| Use group D | 600 V | 5 A | 30 - 10 | - |

|  DNV GL Approval ID: TAE00001EZ | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

|  LR Approval ID: LR21308805TA | | | | |
|--|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | | | - | - |

|  BV Approval ID: 35433/B0 BV | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440309 |
| ECLASS-10.0.1 | 27440309 |
| ECLASS-11.0 | 27460202 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002638 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

PCB connector - PC 4/ 9-STF-7,62

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Accessories

Coding profile

Coding profile - CP-PC RD - 1701967

<https://www.phoenixcontact.com/de/produkte/1701967>

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

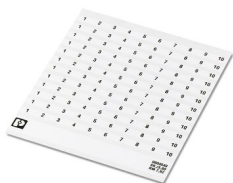


Marker card

Marker card - SK 7,62/3,8:FORTL.ZAHLEN - 0804549

<https://www.phoenixcontact.com/de/produkte/0804549>

Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm



PCB connector - PC 4/ 9-STF-7,62

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Screwdriver

Screwdriver - SZS 0,6X3,5 - 1205053

<https://www.phoenixcontact.com/de/produkte/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

PCB header

PCB header - PCVK 4-7,62-PE - 1876246

<https://www.phoenixcontact.com/de/produkte/1876246>



DIN rail connector, nominal cross section: 4 mm², color: green-yellow, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 1, number of rows: 1, number of positions: 1, number of connections: 1, product range: PCVK 4-PE, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 4, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector - PC 4/ 9-STF-7,62

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PCB header

PCB header - PCVK 4-7,62 - 1849998

<https://www.phoenixcontact.com/de/produkte/1849998>



DIN rail connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 1, number of rows: 1, number of positions: 1, number of connections: 1, product range: PCVK 4, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 4, locking: without, mounting: without, type of packaging: packed in cardboard

Feed-through terminal block

Feed-through terminal block - UPCV3K 4-G-7,62 - 1838381

<https://www.phoenixcontact.com/de/produkte/1838381>



Feed-through terminal block, nom. voltage: 800 V, nominal current: 20 A, connection method: Screw/plug-in connection, cross section: 0.2 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, NS 32, color: gray

PCB connector - PC 4/ 9-STF-7,62

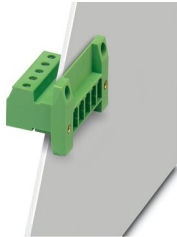
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Feed-through plug

Feed-through plug - DFK-PC 4/ 9-GF-7,62 - 1840625

<https://www.phoenixcontact.com/de/produkte/1840625>



Feed-through connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: DFK-PC 4/...-GF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON PC 4, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

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PHOENIX CONTACT Deutschland GmbH

Flachsmarktstraße 8

D-32825 Blomberg

+49 52 35/3-1 20 00

info@phoenixcontact.de