

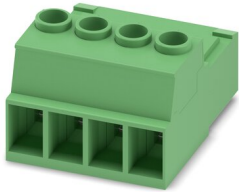
# IPC 5/ 4-ST-7,62 - PCB connector



1709063

<https://www.phoenixcontact.com/in/products/1709063>

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PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: IPC 5/..-ST, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: Z1L Slotted Pozidriv, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: 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
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- 600 V UL approval in the smallest of dimensions

## Commercial Data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1709063             |
| Packing unit                         | 50 pc               |
| Minimum order quantity               | 50 pc               |
| Sales Key                            | AAD                 |
| Product Key                          | AADACA              |
| Catalog Page                         | Page 526 (C-1-2013) |
| GTIN                                 | 4046356075602       |
| Weight per Piece (including packing) | 18.006 g            |
| Weight per Piece (excluding packing) | 17.455 g            |
| Customs tariff number                | 85366990            |
| Country of origin                    | PL                  |

# IPC 5/ 4-ST-7,62 - PCB connector



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## Technical Data

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Type                  | Inverted              |
| Product line          | COMBICON Connectors L |
| Product type          | PCB plug              |
| Product family        | IPC 5/...-ST          |
| Number of positions   | 4                     |
| Pitch                 | 7.62 mm               |
| Number of connections | 4                     |
| Number of rows        | 1                     |
| Mounting flange       | without               |
| Number of potentials  | 4                     |

### Electrical properties

|                             |                |
|-----------------------------|----------------|
| Nominal current $I_N$       | 41 A           |
| Nominal voltage $U_N$       | 1000 V         |
| Degree of pollution         | 3              |
| Contact resistance          | 0.5 m $\Omega$ |
| 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                  | Inverted          |
| Connector system      | COMBICON PC 5     |
| Nominal cross section | 6 mm <sup>2</sup> |
| Type of contact       | Male connector    |

#### Interlock

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

#### Conductor connection

|  |  |
|--|--|
| Connection method  | Screw connection with tension sleeve       |
| Conductor/PCB connection direction                             | 0 °  |
| Conductor cross section solid                                  | 0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup> |
| Conductor cross section flexible                               | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Conductor cross section AWG                                    | 24 ... 10                                  |
| Conductor cross section flexible, with ferrule without plastic | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup> |

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|   |  |
|---|--|
| sleeve  |  |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                      | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| 2 conductors with same cross section, solid   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible  | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>    |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Cylindrical gauge a x b / diameter  | 3.6 mm x 3.1 mm / 3.0 mm                     |
| Stripping length  | 10 mm  |
| Tightening torque   | 0.7 Nm ... 0.8 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                  | 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

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

### Material data – actuating element

|           |     |
|-----------|-----|
| Color ( ) | ( ) |
|-----------|-----|

## Mounting

|                       |                        |
|-----------------------|------------------------|
| Drive form screw head | Slotted Pozidriv (Z1L) |
| Drive form screw head | Slotted Pozidriv (Z1L) |

## 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

# IPC 5/ 4-ST-7,62 - PCB connector



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## 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 <sup>2</sup> / solid / > 10 N    |
|   | 0.2 mm <sup>2</sup> / flexible / > 10 N |
|   | 10 mm <sup>2</sup> / solid / > 90 N     |
|   | 6 mm <sup>2</sup> / flexible / > 80 N   |

## Insertion and withdrawal forces

|                                     |             |
|-------------------------------------|-------------|
| Result                              | Test passed |
| No. of cycles                       | 25          |
| Insertion strength per pos. approx. | 8 N         |
| Withdraw strength per pos. approx.  | 6 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 Hz ... 60.1 Hz) |

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|                        |                         |
|------------------------|-------------------------|
| Sweep speed            | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h                   |

## Durability test

|  |                       |
|--|-----------------------|
| Specification                                | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level       | 9.8 kV                |
| Contact resistance R <sub>1</sub>            | 0.5 mΩ                |
| Contact resistance R <sub>2</sub>            | 0.5 mΩ                |
| Insertion/withdrawal cycles                  | 25                    |
| Insulation resistance, neighboring positions | > 5 MΩ                |

## Climatic test

|                                   |   |
|-----------------------------------|---|
| Specification                     | ISO 6988:1985-02  |
| Corrosive stress                  | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Thermal stress                    | 100 °C/168 h  |
| Power-frequency withstand voltage | 4.26 kV   |

## 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                |

### 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                |

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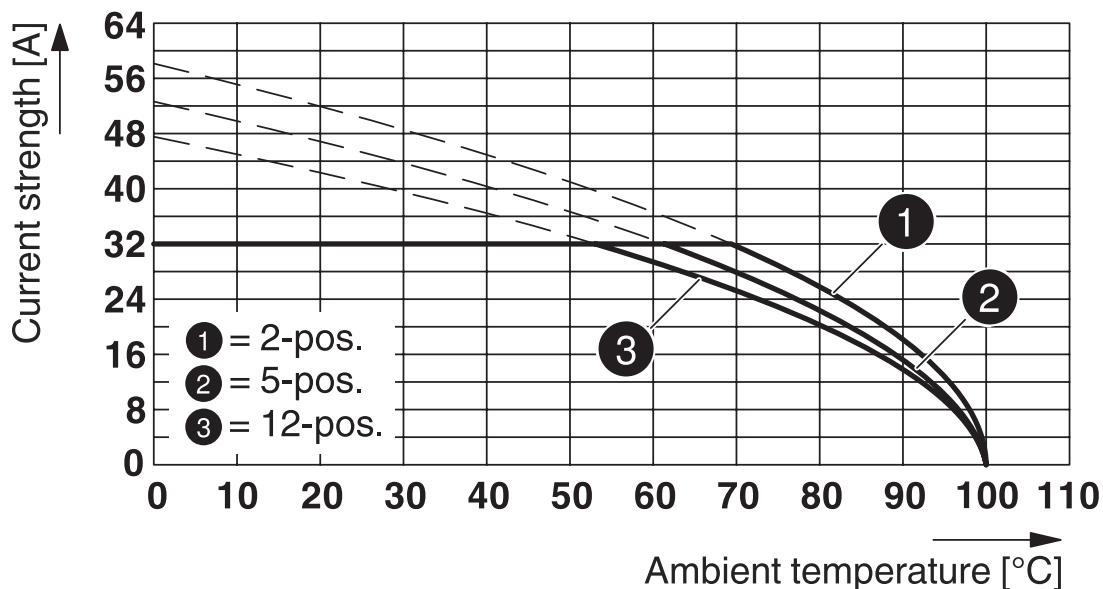
|   |        |
|---|--------|
| minimum clearance value - non-homogenous field (I1/2) | 5.5 mm |
| minimum creepage distance (I1/2)                      | 5.5 mm |

## Packaging specifications

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

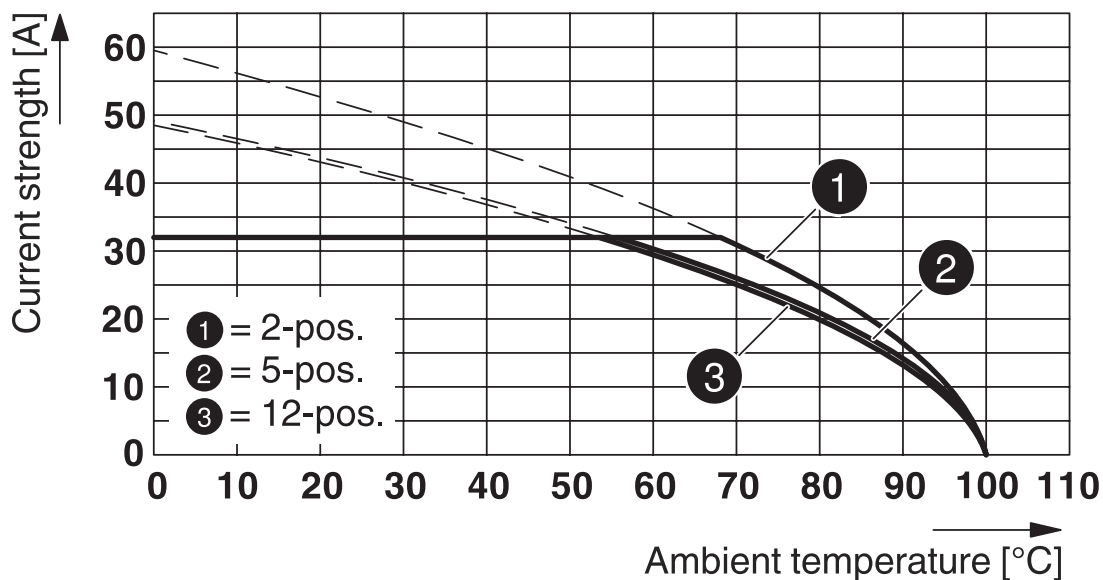
## Drawings

Diagram



Type: IPC 5/...-ST-7,62 with IPCV 5/...-G-7,62

Diagram

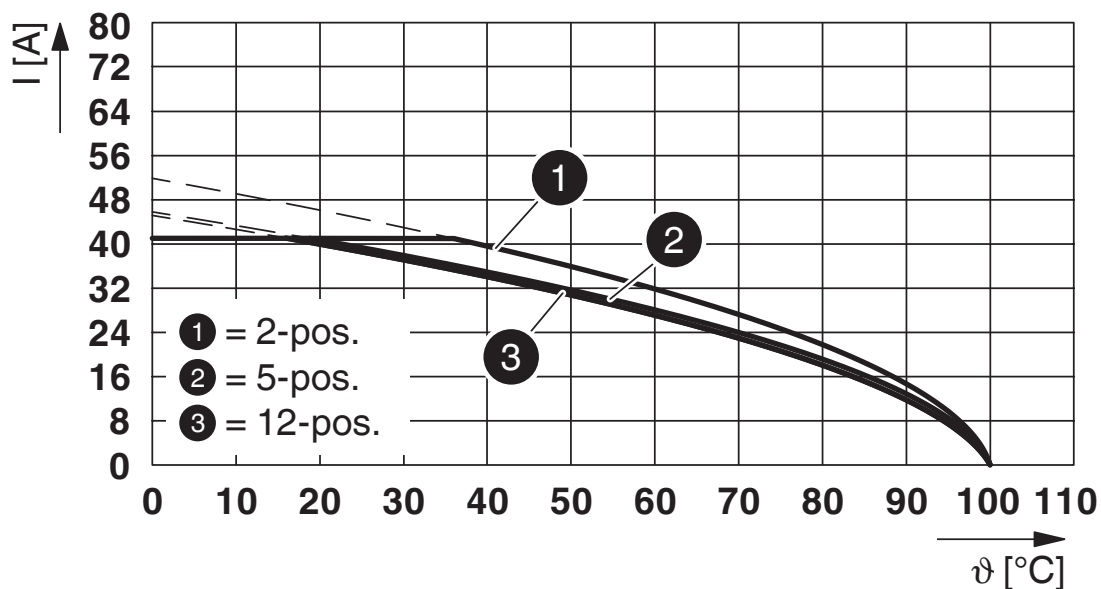


Type: IPC 5/...-ST-7,62 with IPC 5/...-G-7,62

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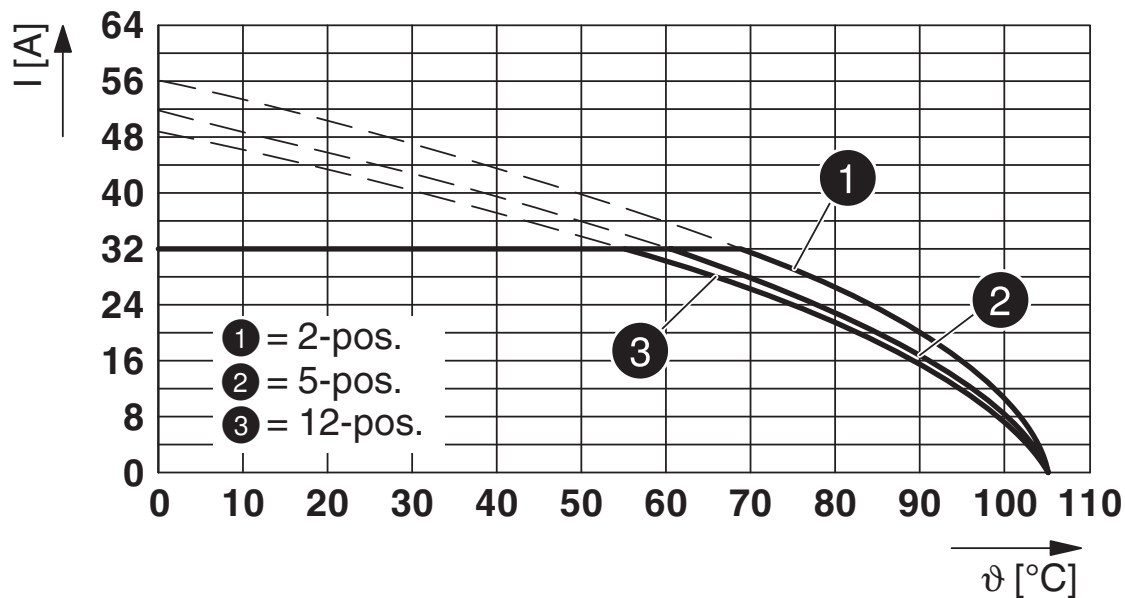
<https://www.phoenixcontact.com/in/products/1709063>

Diagram



Type: PC 5/...-ST1-7,62 with IPC 5/...-ST-7,62

Diagram



Type: SPC 5/...-ST-7,62 with IPC 5/...-ST-7,62

# IPC 5/ 4-ST-7,62 - PCB connector



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## Approvals



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-19920722

# IPC 5/ 4-ST-7,62 - PCB connector



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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# IPC 5/ 4-ST-7,62 - PCB connector



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## Environmental Product Compliance

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

# IPC 5/ 4-ST-7,62 - PCB connector

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## Accessories

### SZK PZ1 VDE - Screwdriver

1206450

<https://www.phoenixcontact.com/in/products/1206450>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 mm, 2-component grip, with non-slip grip

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### CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/in/products/1701967>



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

# IPC 5/ 4-ST-7,62 - PCB connector

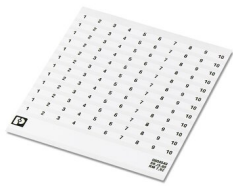
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<https://www.phoenixcontact.com/in/products/1709063>

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

0804549

<https://www.phoenixcontact.com/in/products/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

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## SK 3,8 REEL P7,62 WH CUS - Marker card

0825128

<https://www.phoenixcontact.com/in/products/0825128>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm

# IPC 5/ 4-ST-7,62 - PCB connector

1709063

<https://www.phoenixcontact.com/in/products/1709063>



## SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

<https://www.phoenixcontact.com/in/products/0803906>



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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## SK 3,8 WH:REEL - Marker strip

0805218

<https://www.phoenixcontact.com/in/products/0805218>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 90000 mm, lettering field size: continuous x 3.8 mm, Number of individual labels: 210000

# IPC 5/ 4-ST-7,62 - PCB connector

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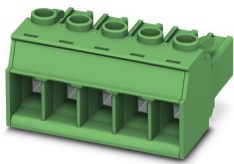
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## PC 5/ 4-ST1-7,62 - PCB connector

1777749

<https://www.phoenixcontact.com/in/products/1777749>



PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PC 5/...-ST1, 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 5, locking: without, mounting: without, type of packaging: packed in cardboard

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## SPC 5/ 4-ST-7,62 - PCB connector

1996032

<https://www.phoenixcontact.com/in/products/1996032>



PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: SPC 5/...-ST, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: without, type of packaging: packed in cardboard

## IPC 5/ 4-ST-7,62 - PCB connector

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### TSPC 5/ 4-ST-7,62 - PCB connector

1728471

<https://www.phoenixcontact.com/in/products/1728471>



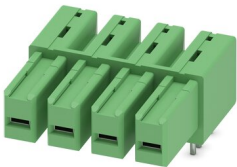
PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 8, product range: TSPC 5/...-ST, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 5, locking: without, mounting: without, type of packaging: packed in cardboard

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### IPC 5/ 4-G-7,62 - PCB header

1708404

<https://www.phoenixcontact.com/in/products/1708404>



PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: IPC 5/...-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

# IPC 5/ 4-ST-7,62 - PCB connector

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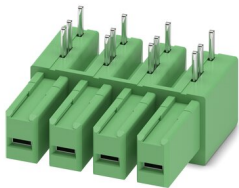
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## IPC 5/ 4-GU-7,62 - PCB header

1708624

<https://www.phoenixcontact.com/in/products/1708624>

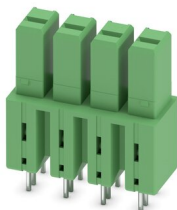


PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: IPC 5/..-GU, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard

## IPCV 5/ 4-G-7,62 - PCB header

1708844

<https://www.phoenixcontact.com/in/products/1708844>



PCB headers, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: IPCV 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

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