

IPCV 5/10-G-7,62 - PCB header



1708909

<https://www.phoenixcontact.com/de/produkte/1708909>

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PCB headers, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, 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

Your advantages

- Well-known mounting principle allows worldwide use
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Inverted header with socket contacts for touch-proof device outputs or PCB/PCB connections
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations

Commercial Data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1708909 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to Order (non-returnable) |
| Sales Key | E1 - Leiterplattenanschl. |
| Product Key | AADSCE |
| Catalog Page | Page 542 (C-1-2013) |
| GTIN | 4046356089883 |
| Weight per Piece (including packing) | 28,55 g |
| Weight per Piece (excluding packing) | 28,55 g |
| Customs tariff number | 85366930 |
| Country of origin | PL |

Technical Data

Product properties

| | |
|---------------------------|-----------------------|
| Type | Inverted |
| Product line | COMBICON Connectors L |
| Product type | PCB headers |
| Product family | IPCV 5/..-G |
| Number of positions | 10 |
| Pitch | 7.62 mm |
| Number of connections | 10 |
| Number of rows | 1 |
| Mounting flange | without |
| Number of potentials | 10 |
| Pin layout | Linear pinning |
| Solder pins per potential | 3 |

Electrical properties

| | |
|-----------------------------|----------------|
| Nominal current I_N | 41 A |
| Nominal voltage U_N | 630 V |
| Degree of pollution | 3 |
| Contact resistance | 0.4 m Ω |
| Rated voltage (III/3) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| Rated voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Mounting

| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

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 contact area (top layer) | Tin (4 - 8 μm Sn) |
| Metal surface soldering area (top layer) | Tin (4 - 8 μm Sn) |

Material data - housing

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

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

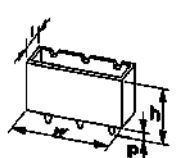
Material data – actuating element

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

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

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 7.62 mm |
| Width [w] | 76.2 mm |
| Height [h] | 35.1 mm |
| Length [l] | 12.8 mm |
| Installed height | 30.1 mm |
| Solder pin length [P] | 5 mm |

PCB design

| | |
|-------------|---------|
| Pin spacing | 7.62 mm |
|-------------|---------|

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 |
| | 10 mm ² / solid / > 90 N |
| | 6 mm ² / flexible / > 80 N |

Insertion and withdrawal forces

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

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) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm |
| minimum creepage distance (III/3) | 8 mm |
| Rated insulation voltage (III/2) | 630 V |

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

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) |
| 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 | 7.3 kV |
| Contact resistance R_1 | 0.4 m Ω |
| Contact resistance R_2 | 0.5 m Ω |
| Insertion/withdrawal cycles | 25 |
| Insulation resistance, neighboring positions | > 5 M Ω |

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 |

Ambient conditions

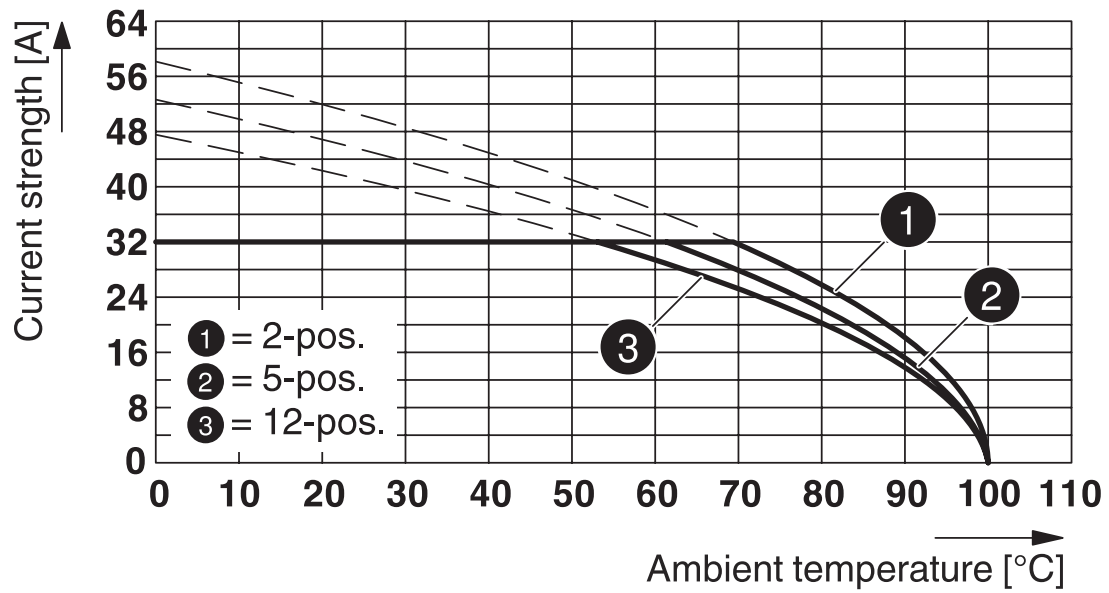
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

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

Drawings

Diagram



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

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Approvals



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 | | | | |
| For 600 V applications, additional insulation is required on the solder pins | 300 V | 41 A | - | - |
| Use group C | | | | |
| For 600 V applications, additional insulation is required on the solder pins | 300 V | 41 A | - | - |
| Use group D | | | | |
| Alternative 1 | 600 V | 5 A | - | - |



UL Recognized

Approval ID: E60425-19920722

| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|-------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Use group F | | | | |
| | 600 V | 41 A | - | - |

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440402 |
| ECLASS-10.0.1 | 27440402 |
| ECLASS-11.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002637 |
|----------|----------|

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 |

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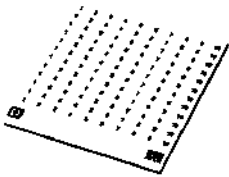
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Accessories

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

0804549

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

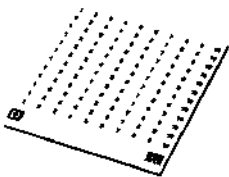


Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

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

0825128

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

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

0803906

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

SK 3,8 WH:REEL - Marker strip

0805218

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

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PCV 5/10-G-7,62 - PCB header

1720657

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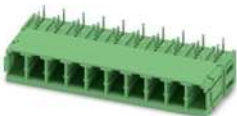


PCB headers, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PCV 5/...-G, pitch: 7.62 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

PC 5/10-GU-7,62 - PCB header

1720767

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PCB headers, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PC 5/...-GU, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.2 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

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PC 5/10-G-7,62 - PCB header

1720547

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PCB headers, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PC 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

ISPC 5/10-STGCL-7,62 - PCB connector

1748943

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PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: ISPC 5/..-STGCL, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Clip locking, mounting: Click & Lock latching window, type of packaging: packed in cardboard

IPCV 5/10-G-7,62 - PCB header

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IPC 5/10-ST-7,62 - PCB connector

1709128

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PCB connector, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, 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

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