

# IPC 5/12-GFU-7,62 - PCB header



1708815

<https://www.phoenixcontact.com/pc/products/1708815>

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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: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IPC 5/..-GFU, 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: Screw locking, mounting: Threaded flange, 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
- Screwable flange for superior mechanical stability
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations

## Commercial Data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1708815                        |
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to Order (non-returnable) |
| Product Key                          | AADSCD                         |
| Catalog Page                         | Page 541 (C-1-2013)            |
| GTIN                                 | 4046356089739                  |
| Weight per Piece (including packing) | 35.51 g                        |
| Weight per Piece (excluding packing) | 33.92 g                        |
| Customs tariff number                | 85366930                       |
| Country of origin                    | PL                             |

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## Technical Data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Type                      | Inverted              |
| Product line              | COMBICON Connectors L |
| Product type              | PCB headers           |
| Product family            | IPC 5/...-GFU         |
| Number of positions       | 12                    |
| Pitch                     | 7.62 mm               |
| Number of connections     | 12                    |
| Number of rows            | 1                     |
| Mounting flange           | Threaded flange       |
| Number of potentials      | 12                    |
| 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      |
| 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   |
| Rated voltage (II/2)        | 1000 V |
| Rated surge voltage (II/2)  | 6 kV   |

### Mounting

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

### Flange

|                   |                   |
|-------------------|-------------------|
| Tightening torque | 0.3 Nm ... 0.7 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 contact area (top layer)   | Tin (4 - 8 $\mu\text{m}$ Sn)   |
| Metal surface soldering area (top layer) | Tin (4 - 8 $\mu\text{m}$ Sn)   |

#### Material data - housing

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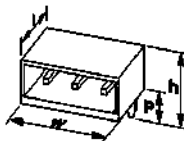
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|   |              |
|---|--------------|
| Color (Housing)   | green (6021) |
| Insulating material   | PA           |
| Insulating material group   | I            |
| CTI according to IEC 60112  | 600          |
| Flammability rating according to 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       |

## 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]             | 91.44 mm   |
| Height [h]            | 17.8 mm  |
| Length [l]            | 30.1 mm  |
| Installed height      | 12.8 mm  |
| Solder pin length [P] | 5 mm   |
| Pin dimensions        | 1.2 x 0.8 mm   |

## PCB design

|               |         |
|---------------|---------|
| Pin spacing   | 7.62 mm |
| Hole diameter | 1.3 mm  |

## 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)                       | 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               |
| Rated surge voltage (III/2)                            | 6 kV                |

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

### 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                                    |

# IPC 5/12-GFU-7,62 - PCB header

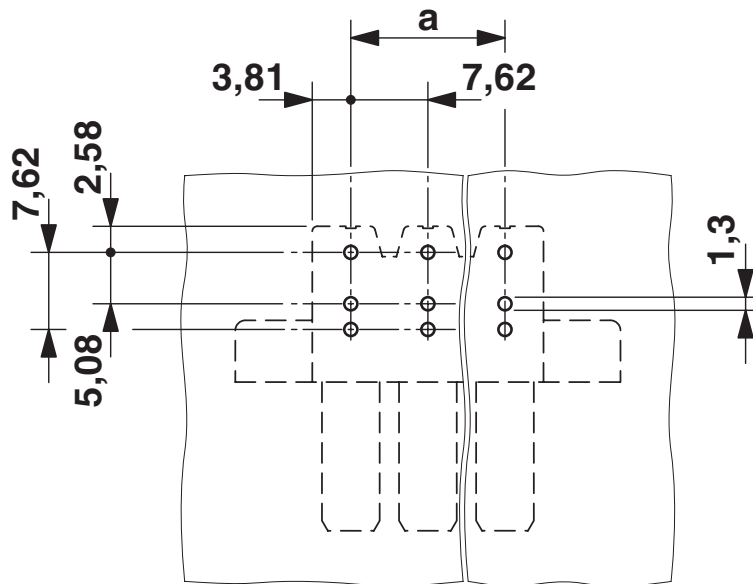
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## Drawings

Drilling plan/solder pad geometry



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1708815>



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-19920722

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

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 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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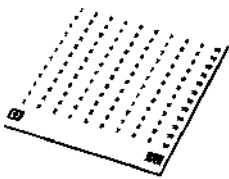
<https://www.phoenixcontact.com/pc/products/1708815>

## Accessories

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

0804549

<https://www.phoenixcontact.com/pc/products/0804549>



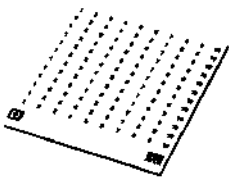
Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

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

0825128

<https://www.phoenixcontact.com/pc/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

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

0803906

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



Marker card, Din A4, 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/pc/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

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## IPC 5/12-STF-7,62 - PCB connector

1709254

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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: Pin, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IPC 5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

## ISPC 5/12-STF-7,62 - PCB connector

1749078

<https://www.phoenixcontact.com/pc/products/1749078>



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: Pin, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: ISPC 5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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