

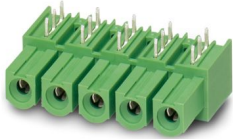
IPC 16/ 7-GU-10,16 - PCB header



1969904

<https://www.phoenixcontact.com/pc/products/1969904>

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PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: IPC 16/..-GU, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard, Plug direction parallel to the PCB: connector part rotated by 180° with respect to the plug axis.

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 | 1969904 |
| Packing unit | 50 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Product key | AAESCD |
| Catalog page | Page 571 (C-1-2013) |
| GTIN | 4017918948658 |
| Weight per piece (including packing) | 26.192 g |
| Weight per piece (excluding packing) | 25.532 g |
| Customs tariff number | 85366930 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|---------------------------|------------------------|
| Product type | PCB headers |
| Product family | IPC 16/..-GU |
| Product line | COMBICON Connectors XL |
| Type | Inverted |
| Number of positions | 7 |
| Pitch | 10.16 mm |
| Number of connections | 7 |
| Number of rows | 1 |
| Number of potentials | 7 |
| Mounting flange | without |
| Pin layout | Linear pinning |
| Solder pins per potential | 3 |

Electrical properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 76 A |
| Nominal voltage U_N | 1000 V |
| Degree of pollution | 3 |
| 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 |

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 | completely silver-plated |
| Metal surface contact area (top layer) | Silver (4 - 8 μm Ag) |
| Metal surface soldering area (top layer) | Silver (4 - 8 μm Ag) |

Material data - housing

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

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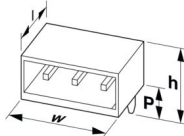
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| | |
|---|--------|
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| 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 | 10.16 mm |
| Width [w] | 71.92 mm |
| Height [h] | 17.4 mm |
| Length [l] | 32.1 mm |
| Installed height | 13.6 mm |
| Solder pin length [P] | 4 mm |
| Pin dimensions | 0.8 x 1.2 mm |

PCB design

| | |
|---------------|----------|
| Pin spacing | 10.16 mm |
| Hole diameter | 1.7 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) | 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 |

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

Packaging specifications

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

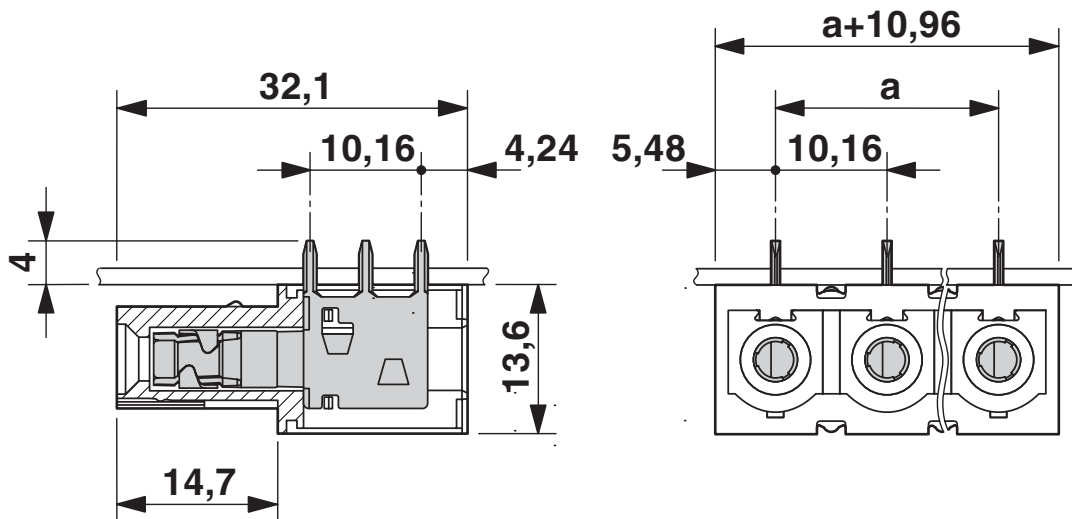
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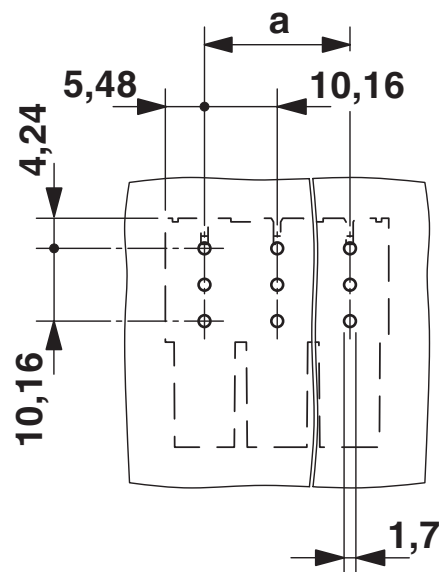
Drawings

Dimensional drawing



The figure shows the 3-pos. version

Drilling plan/solder pad geometry



The figure shows the 3-pos. version

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1969904>

|  cULus Recognized Approval ID: E60425-20040202 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | 300 V | 66 A | - | - |
| Use group C | 300 V | 66 A | - | - |
| Use group D | 600 V | 5 A | - | - |

|  VDE Zeichengenehmigung Approval ID: 40055586 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 1000 V | 76 A | - | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002637 |
|----------|----------|

UNSPSC

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

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Accessories

CP-PC RD - Coding profile

1701967

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

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



SK U/5,0 WH:UNBEDRUCKT - Marker card

0803922

<https://www.phoenixcontact.com/pc/products/0803922>

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 5 mm, Number of individual labels: 630



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IPC 16/ 7-ST-10,16 - PCB connector

1969425

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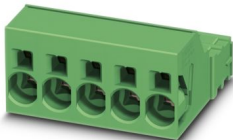


PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: IPC 16/...-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

ISPC 16/ 7-ST-10,16 - PCB connector

1748590

<https://www.phoenixcontact.com/pc/products/1748590>



PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: ISPC 16/...-ST, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

IPC 16/ 7-GU-10,16 - PCB header

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PC 6-16/ 7-G1-10,16 - PCB header

1998988

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PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: PC 6-16/...-G1, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

PC 6-16/ 7-G1U-10,16 - PCB header

1996281

<https://www.phoenixcontact.com/pc/products/1996281>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: PC 6-16/...-G1U, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard

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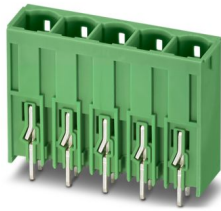
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PCV 6-16/ 7-G1-10,16 - PCB header

1998836

<https://www.phoenixcontact.com/pc/products/1998836>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A (41 A in combination with PC 6 plug), rated voltage (III/2): 1000 V, contact surface: Silver, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: PCV 6-16/..-G1, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

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PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

info@phoenixcontact.com