

PC 6-16/ 8-G1U-10,16 - PCB header

1996294

<https://www.phoenixcontact.com/us/products/1996294>

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The figure shows a 5-pos. version of the product

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: Ag, contact connection type: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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 method: 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

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1996294 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA05 |
| Product key | AAESBD |
| GTIN | 4046356038034 |
| Weight per piece (including packing) | 33.97 g |
| Weight per piece (excluding packing) | 32.064 g |
| Customs tariff number | 85366930 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|---------------------------|------------------------|
| Product type | PCB headers |
| Product family | PC 6-16/...-G1U |
| Product line | COMBICON Connectors XL |
| Type | Headers |
| Number of positions | 8 |
| Pitch | 10.16 mm |
| Number of connections | 8 |
| Number of rows | 1 |
| Number of potentials | 8 |
| Mounting type | without |
| Pin layout | Linear pinning |
| Solder pins per potential | 3 |

Electrical properties

Properties

| | |
|-----------------------------|---|
| Nominal current I_N | 76 A (41 A in combination with PC 6 plug) |
| Nominal voltage U_N | 1000 V |
| 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 | Electroplated silver |
| Metal surface contact area (top layer) | Silver (4 μm - 8 μm Ag) |
| Metal surface contact area (middle layer) | Nickel (2 μm - 4 μm Ni) |
| Metal surface soldering area (top layer) | Silver (4 μm - 8 μm Ag) |
| Metal surface soldering area (middle layer) | Nickel (2 μm - 4 μm Ni) |

Material data - housing

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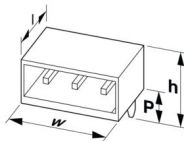
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| | |
|---|--------------|
| Color (Housing) | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according 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

| | |
|---------|--|
| General | 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] | 84.32 mm |
| Height [h] | 17.4 mm |
| Length [l] | 34 mm |
| Installed height | 13.4 mm |
| Solder pin length [P] | 4 mm |
| Pin dimensions | 0.8 x 1.2 mm |

PCB design

| | |
|---------------|---------|
| Pin spacing | 1.16 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 |

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

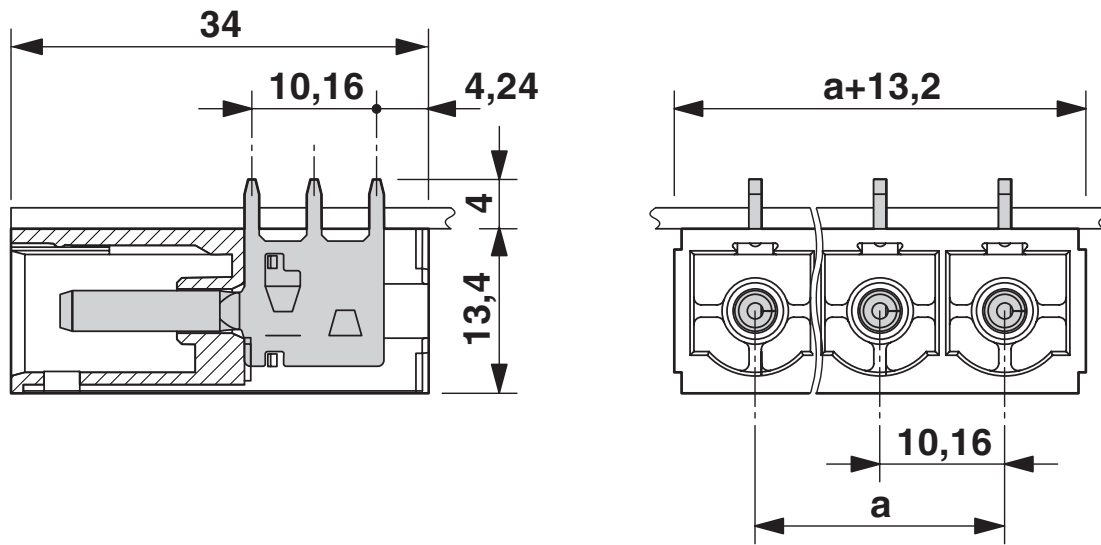
| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Packaging specifications

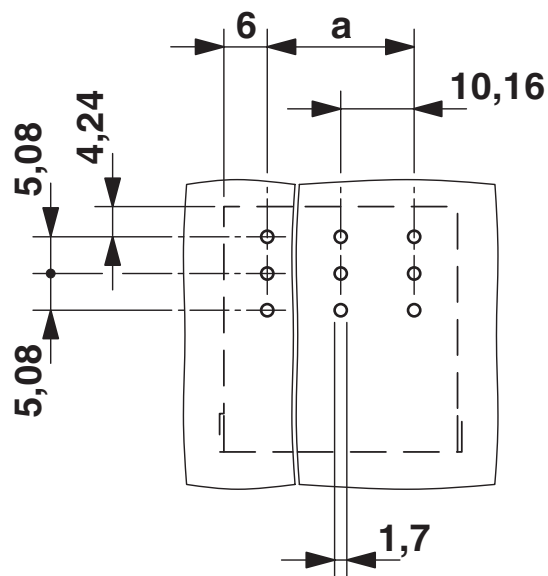
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

ETIM

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