

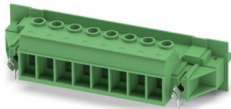
DFK-IPC 16/ 8-STF-SH-10,16 - Feed-through plug



1703991

<https://www.phoenixcontact.com/us/products/1703991>

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Feed-through connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: DFK-IPC 16/..-STF-SH, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 16, Electrical properties: shielded, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting method: Screw flange, 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
- Flange system enables secure fixing to the housing panel by means of tool-free snap-in locking or screws
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Shroud for professional EMC shield feed-through on the inside of the device
- Screwable flange for superior mechanical stability

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1703991 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA05 |
| Product key | AAEWBC |
| GTIN | 4017918994754 |
| Weight per piece (including packing) | 92.03 g |
| Weight per piece (excluding packing) | 92 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|---------------------------|------------------------|
| Product type | Feed-through connector |
| Product family | DFK-IPC 16/...STF-SH |
| Product line | COMBICON Connectors XL |
| Type | Feed-through header |
| Number of positions | 8 |
| Pitch | 10.16 mm |
| Number of connections | 8 |
| Number of rows | 1 |
| Number of potentials | 8 |
| Mounting type | Screw flange |
| Electrical characteristic | shielded |

Electrical properties

Properties

| | |
|-----------------------------|----------|
| Nominal current I_N | 76 A |
| 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 |
| Electrical characteristic | shielded |

Connection data

Connection technology

| | |
|-------------------------|---------------------|
| Type | Feed-through header |
| Connector system | COMBICON PC 16 |
| Nominal cross section | 16 mm ² |
| Contact connection type | Socket |

Interlock

| | |
|---------------|-------------------------|
| Locking type | Screw locking mechanism |
| Mounting type | Screw flange |

Conductor connection

| | |
|--|---|
| Connection method | Screw connection with tension sleeve |
| Connection direction of the conductor to plug-in direction | 0 ° |
| Conductor cross-section rigid | 0.75 mm ² ... 16 mm ² |
| Conductor cross-section flexible | 0.75 mm ² ... 16 mm ² |

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| | |
|---|--|
| Conductor cross-section AWG | 18 ... 6 |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 0.5 mm ² ... 16 mm ² (Only in connection with CRIMPFOX 16 S) |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.5 mm ² ... 16 mm ² (Only in connection with CRIMPFOX 16 S) |
| 2 conductors with same cross section, rigid | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible | 0.75 mm ² ... 6 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.5 mm ² ... 4 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 6 mm ² |
| Cylindrical gauge a x b / diameter | - / 5.4 mm |
| Stripping length | 12 mm |
| Drive form screw head | Slotted (L) |
| Tightening torque | 1.7 Nm ... 1.8 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 | Electroplated silver |
| Metal surface terminal point (top layer) | Tin (3 µm - 5 µm Sn) |
| Metal surface terminal point (middle layer) | Nickel (1.3 µm - 3 µm Ni) |
| Metal surface contact area (top layer) | Tin (3 µm - 5 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 µm - 3 µm Ni) |

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 |

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

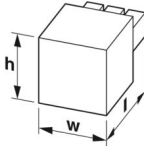
Dimensions

DFK-IPC 16/ 8-STF-SH-10,16 - Feed-through plug



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| | |
|---------------------|--|
| Dimensional drawing |  |
| Pitch | 10.16 mm |
| Width [w] | 122.36 mm |
| Height [h] | 32.05 mm |
| Length [l] | 56.4 mm |
| Installed height | 32.5 mm |

Electrical tests

Air clearances and creepage distances | 1. Insulation coordination

| | |
|--|-------------------|
| Specification | IEC 61984:2008-10 |
| 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 |
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5.5 mm |

Air clearances and creepage distances | 2. Insulation coordination

| | |
|--|---------------------|
| Specification | IEC 60664-1:2020-05 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 1000 V AC/DC |
| 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) | 1250 V DC |
| 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) | 1500 V DC |
| Rated surge voltage (II/2) | 8 kV |

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| | |
|---|------|
| minimum clearance value - non-homogenous field (II/2) | 8 mm |
| minimum creepage distance (II/2) | 8 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) |

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

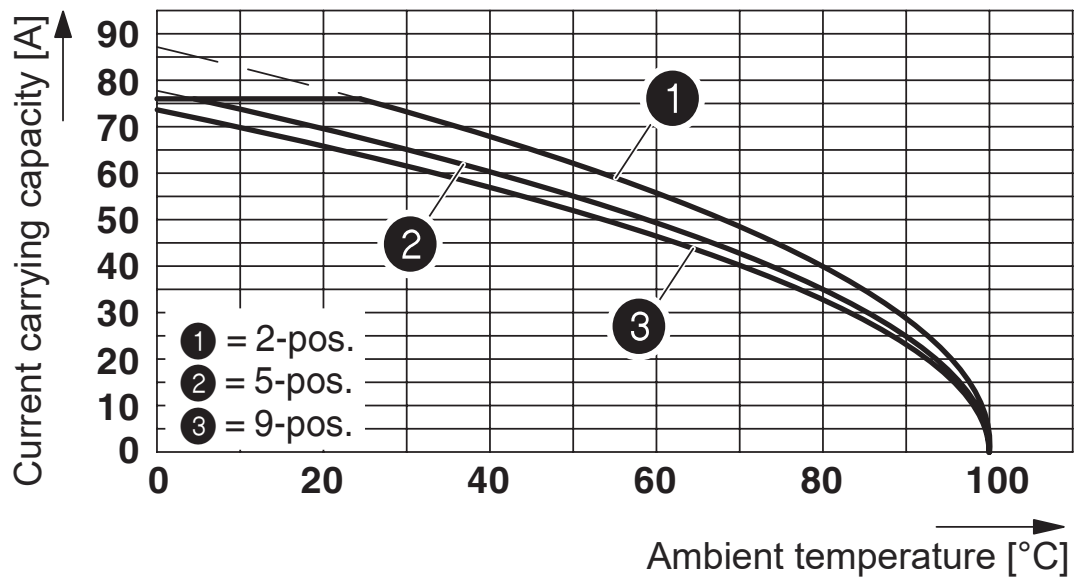
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

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Drawings

Diagram



Derating curve for: IPC 16/...-ST-10.16 with DFK-IPC 16/...-ST-10.16

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460202 |
| ECLASS-15.0 | 27460202 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002638 |
|----------|----------|

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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