

# DFK-IPC 16/ 3-STF-SH-10,16 - Feed-through plug

1703946

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Feed-through connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, 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	1703946
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	AA05
Product key	AAEWBC
GTIN	4017918994709
Weight per piece (including packing)	47.81 g
Weight per piece (excluding packing)	45.45 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	3
Pitch	10.16 mm
Number of connections	3
Number of rows	1
Number of potentials	3
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 <sup>2</sup>
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 <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross-section flexible	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>

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Conductor cross-section AWG	18 ... 6
Conductor cross-section flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (Only in connection with CRIMPFOX 16 S)
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (Only in connection with CRIMPFOX 16 S)
2 conductors with same cross section, solid	0.75 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.75 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
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 - 5 µm Sn)
Metal surface terminal point (middle layer)	Nickel (1.3 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (3 - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 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.
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## Dimensions

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## Dimensional drawing



Pitch	10.16 mm
Width [w]	71.56 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 (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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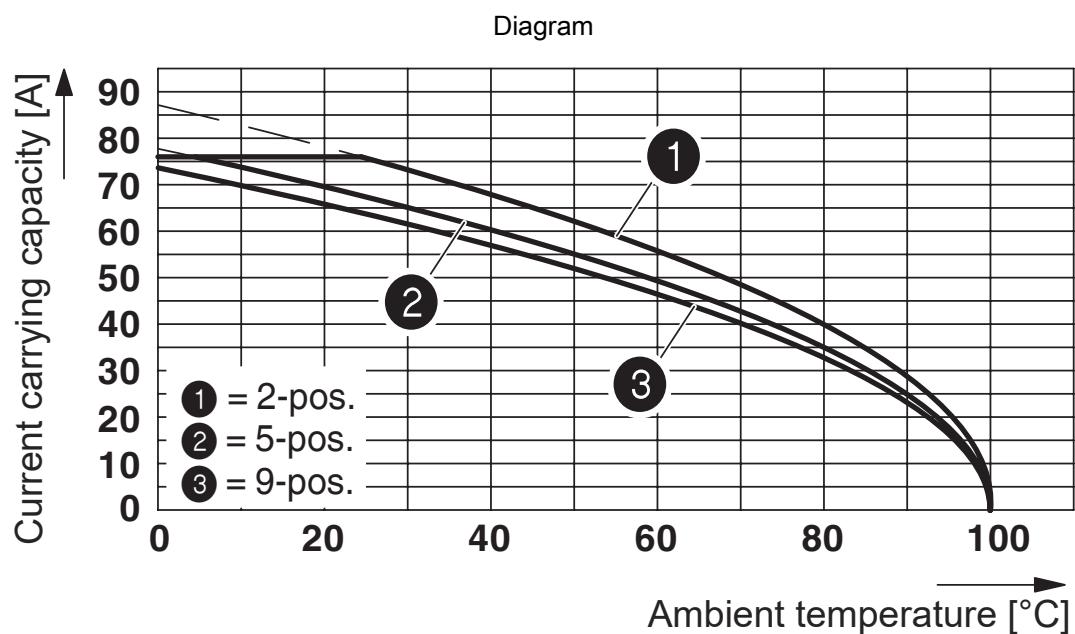
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## Drawings



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

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1703946>

 <b>cULus Recognized</b> Approval ID: E60425-20040202				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
B	600 V	55 A	20 - 6	-
C	600 V	55 A	20 - 6	-

 <b>VDE approval of drawings</b> Approval ID: 40055586				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	1000 V	76 A	-	0.75 - 16

## Classifications

### ECLASS

ECLASS-13.0	27460202
ECLASS-15.0	27460202

### ETIM

ETIM 9.0	EC002638
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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
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### 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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