

# Feed-through plug - DFK-IPC 16/ 7-STF-SH-10,16



1703988

<https://www.phoenixcontact.com/pc/products/1703988>

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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: Silver, type of contact: Female connector, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: 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
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- Shroud for professional EMC shield feed-through on the inside of the device
- Screwable flange for superior mechanical stability

## Commercial Data

Item number	1703988
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	AAEWBC
Catalog Page	Page 585 (C-1-2013)
GTIN	4017918994747
Weight per Piece (including packing)	79.8 g
Weight per Piece (excluding packing)	75.975 g
Customs tariff number	85366990
Country of origin	PL

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## Technical Data

### Product properties

Type	Feed-through header
Product line	COMBICON Connectors XL
Product type	Feed-through connector
Number of positions	7
Pitch	10.16 mm
Number of connections	7
Number of rows	1
Mounting flange	Screw flange
Number of potentials	7

### 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

### Connection data

#### Connection technology

Type	Feed-through header
Connector system	COMBICON PC 16
Nominal cross section	16 mm <sup>2</sup>
Type of contact	Female connector

#### Interlock

Locking type	Screw locking
Mounting flange	Screw flange

#### Conductor connection

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section solid	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>
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>

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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
Tightening torque	1.7 Nm ... 1.8 Nm

## Mounting

Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)

## 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

### Material data – actuating element

Color ( )	( )
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## Notes

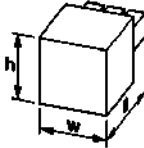
Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
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## Dimensions

# Feed-through plug - DFK-IPC 16/ 7-STF-SH-10,16

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Dimensional drawing	
Pitch	10.16 mm
Width [w]	112.2 mm
Height [h]	32.05 mm
Length [l]	56.4 mm
Installed height	32.5 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
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

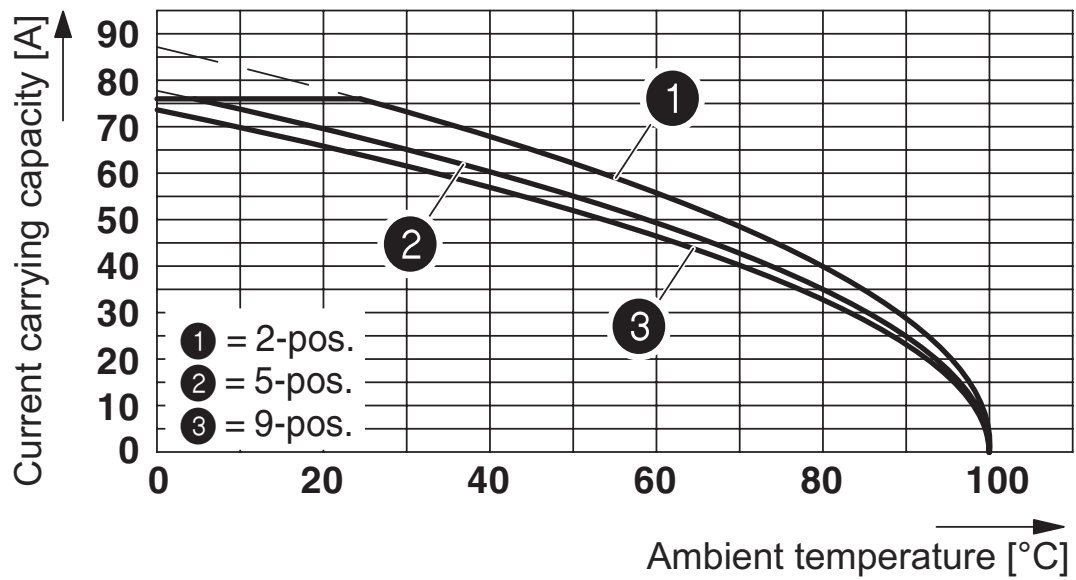
Type of packaging	packed in cardboard
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## Drawings

Diagram



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

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## Approvals



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-20040202

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	600 V	55 A	20 - 6	-
Use group C				
	600 V	55 A	20 - 6	-



**IECEE CB Scheme**

Approval ID: DE1-66677

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
		76 A	-	0.75 - 16



**VDE Zeichengenehmigung**

Approval ID: 40055586

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
		76 A	-	0.75 - 16

# Feed-through plug - DFK-IPC 16/ 7-STF-SH-10,16



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## Classifications

### ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	27460202

### ETIM

ETIM 8.0	EC002638
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### 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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## Accessories

### Coding profile

Coding profile - CP-PC RD - 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



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## Accessories

Accessories - DFK-PC MOUNT SET - 1054021

<https://www.phoenixcontact.com/pc/products/1054021>

Contains 20 pcs. latch and screw elements for feed-through connectors each



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## Connector

Connector - C-SCF 2,5/6,3X0,8 - 3240159

<https://www.phoenixcontact.com/pc/products/3240159>



Slip-on sleeve, non-insulated, 1.5 ... 2.5 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCF 6/6,3X0,8 - 3240160

<https://www.phoenixcontact.com/pc/products/3240160>



Slip-on sleeve, non-insulated, 4 ... 6 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCF 1,5/6,3X0,8 - 3240156

<https://www.phoenixcontact.com/pc/products/3240156>



Slip-on sleeve, non-insulated, 0.5 ... 1.5 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCFI 6/6,3X0,8 - 3240056

<https://www.phoenixcontact.com/pc/products/3240056>



Slip-on sleeve, yellow, 4 ... 6 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCFI 1,5/6,3X0,8 - 3240052

<https://www.phoenixcontact.com/pc/products/3240052>



Slip-on sleeve, red, 0.5 ... 1.5 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCFFI 2,5/6,3X0,8 - 3240547

<https://www.phoenixcontact.com/pc/products/3240547>



Slip-on sleeve, fully isolated, blue, 1.5 ... 2.5 mm<sup>2</sup>, for plug 6.3 x 0.8 mm

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## Connector

Connector - C-SCFI 2,5/6,3X0,8 - 3240055

<https://www.phoenixcontact.com/pc/products/3240055>



Slip-on sleeve, blue, 1.5 ... 2.5 mm<sup>2</sup>, 6.3 x 0.8

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## Connector

Connector - C-SCFFI 6/6,3X0,8 - 3240541

<https://www.phoenixcontact.com/pc/products/3240541>



Slip-on sleeve, fully insulated, yellow, 4 ... 6 mm<sup>2</sup>, for 6.3 x 0.8 mm plugs

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## Connector

Connector - C-SCFFI 1,5/6,3X0,8 - 3240538

<https://www.phoenixcontact.com/pc/products/3240538>



Slip-on sleeve, fully isolated, red, 0.5 ... 1.5 mm<sup>2</sup>, for plug 6.3 x 0.8 mm

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## PCB connector

PCB connector - IPC 16/ 7-STF-10,16 - 1969506

<https://www.phoenixcontact.com/pc/products/1969506>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: IPC 16/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

# Feed-through plug - DFK-IPC 16/ 7-STF-SH-10,16

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## PCB connector

PCB connector - IPC 16/ 7-STF-SH-10,16 - 1737336

<https://www.phoenixcontact.com/pc/products/1737336>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: 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 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

## PCB connector

PCB connector - ISPC 16/ 7-STF-10,16 - 1748671

<https://www.phoenixcontact.com/pc/products/1748671>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: ISPC 16/...-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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