

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

1703823

<https://www.phoenixcontact.com/us/products/1703823>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: DFK-IPC 16/..-STF, 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 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 connection on the front of the device
- Screwable flange for superior mechanical stability

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1703823       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | AA05          |
| Product key                          | AAEWBB        |
| GTIN                                 | 4017918994662 |
| Weight per piece (including packing) | 84.84 g       |
| Weight per piece (excluding packing) | 18.136 g      |
| Customs tariff number                | 85366990      |
| Country of origin                    | BG            |

## Technical data

### Product properties

|                       |                        |
|-----------------------|------------------------|
| Product type          | Feed-through connector |
| Product family        | DFK-IPC 16/...-STF     |
| Product line          | COMBICON Connectors XL |
| Type                  | Feed-through header    |
| Number of positions   | 7                      |
| Pitch                 | 10.16 mm               |
| Number of connections | 7                      |
| Number of rows        | 1                      |
| Number of potentials  | 7                      |
| Mounting type         | Screw flange           |

### 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   |

### 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>  |
| 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) |

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



1703823

<https://www.phoenixcontact.com/us/products/1703823>

|   |  |
|---|--|
| 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, rigid   | 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>  |
| 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 (4 µm - 8 µm Sn)   |
| Metal surface contact area (top layer)   | Silver (2 µm - 4 µm Ag)  |

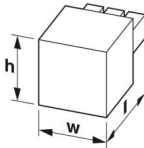
### Material data - housing

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

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Pitch               | 10.16 mm   |
| Width [w]           | 112.2 mm   |

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



1703823

<https://www.phoenixcontact.com/us/products/1703823>

|            |          |
|------------|----------|
| Height [h] | 32.05 mm |
| Length [l] | 56.4 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                |
| 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) |

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



1703823

<https://www.phoenixcontact.com/us/products/1703823>

## 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                                    |

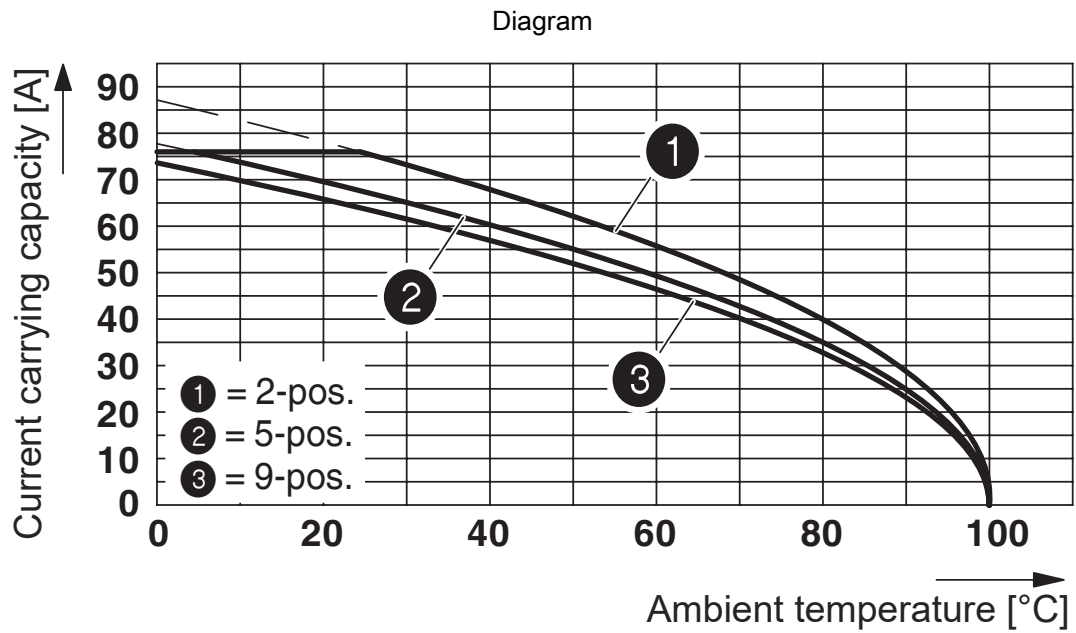
## Packaging specifications

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

1703823

<https://www.phoenixcontact.com/us/products/1703823>

## Drawings



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

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




1703823

<https://www.phoenixcontact.com/us/products/1703823>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1703823>

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

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

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



1703823

<https://www.phoenixcontact.com/us/products/1703823>

## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002638 |
|-----------|----------|

### UNSPSC

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

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



1703823

<https://www.phoenixcontact.com/us/products/1703823>

## 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% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)