

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



1703674

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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: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: DFK-PC 16/...STF-SH, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, solder pin [P]: 4.1 mm, 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
- Shroud for professional EMC shield feed-through on the inside of the device
- Screwable flange for superior mechanical stability

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1703674                        |
| Packing unit                         | 10 pc                          |
| Minimum order quantity               | 10 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA05                           |
| Product key                          | AAEWDC                         |
| GTIN                                 | 4017918994518                  |
| Weight per piece (including packing) | 95.06 g                        |
| Weight per piece (excluding packing) | 91.56 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-PC 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 <sup>2</sup>  |
| Contact connection type | Pin                 |

#### Interlock

|                   |                         |
|-------------------|-------------------------|
| Locking type      | Screw locking mechanism |
| Mounting type     | Screw flange            |
| Tightening torque | 0.3 Nm                  |

#### 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> |

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|                                                                                           |                                                                                    |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 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>                                         |
| 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                                                        | 4.3 mm x 4.0 mm / 5.4 mm                                                           |
| Stripping length                                                                          | 12 mm                                                                              |
| Drive form screw head                                                                     | Slotted (L)                                                                        |
| Tightening torque                                                                         | 1.7 Nm ... 1.8 Nm                                                                  |

## Mounting

### Attachment to feed-through panel

|                   |                      |
|-------------------|----------------------|
| Tightening torque | 0.3 Nm               |
| Screw             | 1700368 DFK-PC 35 SS |

## 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) | Silver (4 - 8 µm Ag)                                                             |
| Metal surface contact area (top layer)   | Silver (4 - 8 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. |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Dimensions

|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Dimensional drawing   |  |
| Pitch                 | 10.16 mm                                                                           |
| Width [w]             | 116.64 mm                                                                          |
| Height [h]            | 32.25 mm                                                                           |
| Length [l]            | 44.1 mm                                                                            |
| Installed height      | 30.55 mm                                                                           |
| Solder pin length [P] | 4.1 mm                                                                             |

## PCB design

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

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

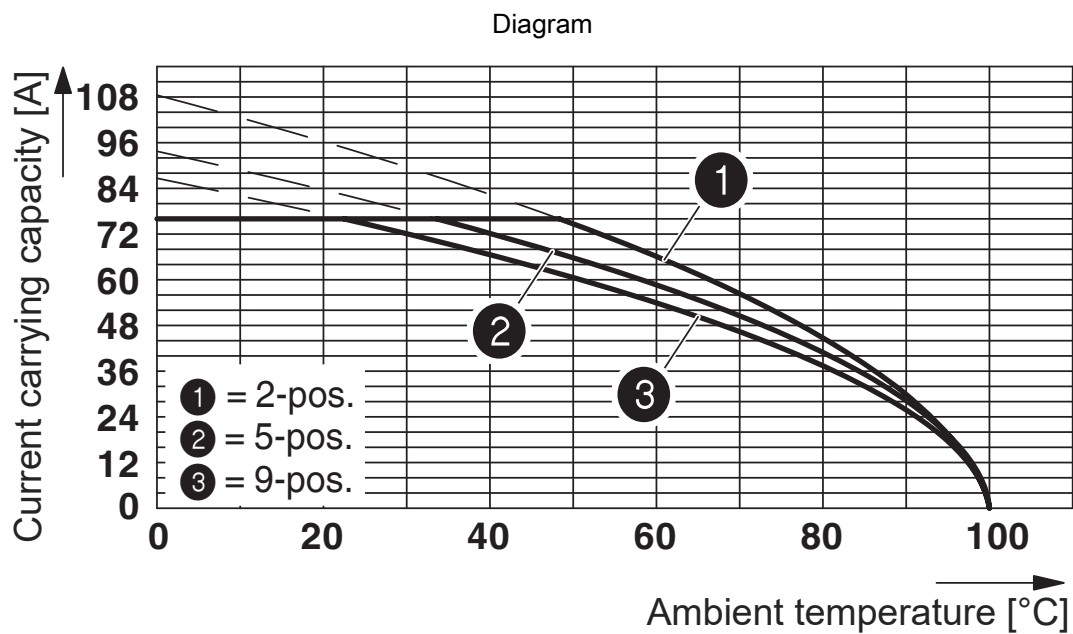


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|                   |                     |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

## Drawings



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

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



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1703674>

|  <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                   |

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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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