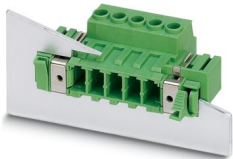


# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



1716661  
<https://www.phoenixcontact.com/us/products/1716661>

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Feed-through connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: DFK-PC 5/...-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: Z1L Slotted Pozidriv, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, 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
- Shroud for professional EMC shield connection on the front of the device
- Screwable flange for superior mechanical stability

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1716661             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | AA04                |
| Product key                          | AADWEB              |
| Catalog page                         | Page 549 (C-1-2013) |
| GTIN                                 | 4046356137287       |
| Weight per piece (including packing) | 44 g                |
| Weight per piece (excluding packing) | 39.29 g             |
| Customs tariff number                | 85366990            |
| Country of origin                    | PL                  |

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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## Technical data

### Product properties

|                       |                        |
|-----------------------|------------------------|
| Product type          | Feed-through connector |
| Product family        | DFK-PC 5/...-STF       |
| Product line          | COMBICON Connectors L  |
| Type                  | Feed-through header    |
| Number of positions   | 7                      |
| Pitch                 | 7.62 mm                |
| Number of connections | 7                      |
| Number of rows        | 1                      |
| Number of potentials  | 7                      |
| Mounting flange       | Screw flange           |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 06 |
|------------------|----|

### Electrical properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 41 A   |
| Nominal voltage $U_N$       | 1000 V |
| Contact resistance          | 0.5 mΩ |
| Rated voltage (III/3)       | 630 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 5       |
| Nominal cross section   | 6 mm <sup>2</sup>   |
| Contact connection type | Pin                 |

#### Interlock

|                 |                         |
|-----------------|-------------------------|
| Locking type    | Screw locking mechanism |
| 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 rigid                              | 0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup> |
| Conductor cross section flexible                           | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |

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|                                                                                           |                                              |
|-------------------------------------------------------------------------------------------|----------------------------------------------|
| Conductor cross section AWG                                                               | 24 ... 10                                    |
| Conductor cross section flexible, with ferrule without plastic sleeve                     | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>   |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                      | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| 2 conductors with same cross section, solid                                               | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible                                            | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>    |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Cylindrical gauge a x b / diameter                                                        | 3.6 mm x 3.1 mm / 3.4 mm                     |
| Stripping length                                                                          | 10 mm                                        |
| Drive form screw head                                                                     | Slotted Pozidriv (Z1L)                       |
| Tightening torque                                                                         | 0.7 Nm ... 0.8 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                  | hot-dip tin-plated                                                               |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn)                                                                |
| Metal surface contact area (top layer)   | Tin (4 - 8 µm Sn)                                                                |

### 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. |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

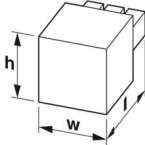
## Dimensions

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Pitch               | 7.62 mm                                                                            |
| Width [w]           | 87.96 mm                                                                           |
| Height [h]          | 26.24 mm                                                                           |
| Length [l]          | 48.95 mm                                                                           |
| Installed height    | 26.24 mm                                                                           |

## Mechanical tests

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

### Pull-out test

|                                                                             |                                         |
|-----------------------------------------------------------------------------|-----------------------------------------|
| Specification                                                               | IEC 60999-1:1999-11                     |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 0.2 mm <sup>2</sup> / solid / > 10 N    |
|                                                                             | 0.2 mm <sup>2</sup> / flexible / > 10 N |
|                                                                             | 10 mm <sup>2</sup> / solid / > 90 N     |
|                                                                             | 6 mm <sup>2</sup> / flexible / > 80 N   |

### Insertion and withdrawal forces

|                                     |             |
|-------------------------------------|-------------|
| Result                              | Test passed |
| No. of cycles                       | 50          |
| Insertion strength per pos. approx. | 5 N         |
| Withdraw strength per pos. approx.  | 4 N         |

### Resistance of inscriptions

|               |                        |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result        | Test passed            |

### Polarization and coding

|               |                        |
|---------------|------------------------|
| Specification | IEC 60512-13-5:2006-02 |
| Result        | Test passed            |

### Visual inspection

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result        | Test passed           |

### Dimension check

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result        | Test passed           |

## Electrical tests

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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## Thermal test | Test group C

|                            |                       |
|----------------------------|-----------------------|
| Specification              | IEC 60512-5-1:2002-02 |
| Tested number of positions | 12                    |

## Insulation resistance

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ                |

## 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)                       | 630 V               |
| Rated surge voltage (III/3)                            | 8 kV                |
| minimum clearance value - non-homogenous field (III/3) | 8 mm                |
| minimum creepage distance (III/3)                      | 8 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

### Vibration test

|                        |                             |
|------------------------|-----------------------------|
| Specification          | IEC 60068-2-6:2007-12       |
| Frequency              | 10 - 150 - 10 Hz            |
| Sweep speed            | 1 octave/min                |
| Amplitude              | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration           | 5g (60.1 Hz ... 150 Hz)     |
| Test duration per axis | 2.5 h                       |
| Test directions        | X-, Y- and Z-axis           |

### Durability test

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level       | 9.8 kV                |
| Contact resistance R <sub>1</sub>            | 0.5 mΩ                |
| Contact resistance R <sub>2</sub>            | 0.6 mΩ                |
| Insertion/withdrawal cycles                  | 50                    |
| Insulation resistance, neighboring positions | > 5 MΩ                |

### Climatic test

|               |                  |
|---------------|------------------|
| Specification | ISO 6988:1985-02 |
|---------------|------------------|

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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|                                   |                                                                           |
|-----------------------------------|---------------------------------------------------------------------------|
| Corrosive stress                  | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Thermal stress                    | 100 °C/168 h                                                              |
| Power-frequency withstand voltage | 4.26 kV                                                                   |

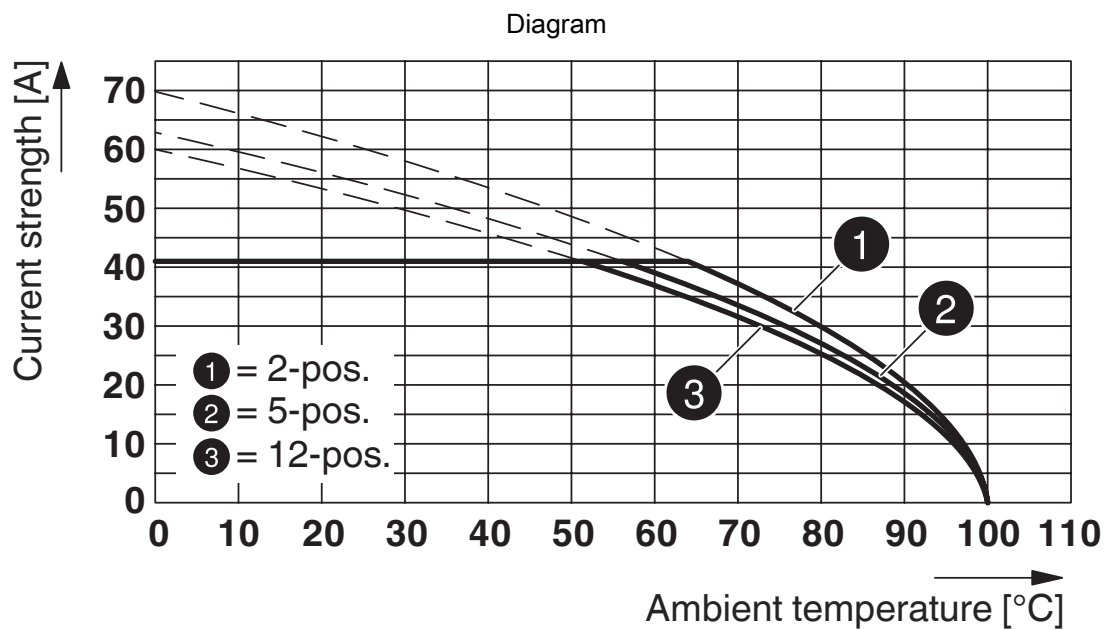
## Ambient conditions

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

## Drawings



Type: SPC 5/...-STF-7,62 with DFK-PC 5/...-STF-7,62  
 Conductor cross section: 10 mm<sup>2</sup>

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1716661>

| <div> <b>cULus Recognized</b><br/>Approval ID: E60425-19920722</div> |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                                       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                                           | 600 V                 | 41 A                  | 24 - 8            | -                           |
|                                                                                                                                                       |                       |                       |                   |                             |
| Use group C                                                                                                                                           | 600 V                 | 41 A                  | 24 - 8            | -                           |
|                                                                                                                                                       |                       |                       |                   |                             |

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460202 |
| ECLASS-12.0 | 27460202 |
| ECLASS-13.0 | 27460202 |

### ETIM

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

### UNSPSC

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

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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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%               |

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug



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## Accessories

### CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/us/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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### DFK-PC 16-SS - Accessories

1705449

<https://www.phoenixcontact.com/us/products/1705449>

Screw set for DFK-PC 16... connectors



## DFK-PC 5/ 7-STF-7,62 - Feed-through plug

1716661

<https://www.phoenixcontact.com/us/products/1716661>



## SZK PZ1 VDE - Screwdriver

1206450

<https://www.phoenixcontact.com/us/products/1206450>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 mm, 2-component grip, with non-slip grip

## SK 7,62/3,8:FORTL.ZAHLEN - Marker card

0804549

<https://www.phoenixcontact.com/us/products/0804549>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

## DFK-PC 5/ 7-STF-7,62 - Feed-through plug

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<https://www.phoenixcontact.com/us/products/1716661>



## SK 3,8 REEL P7,62 WH CUS - Marker card

0825128

<https://www.phoenixcontact.com/us/products/0825128>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm

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## SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

<https://www.phoenixcontact.com/us/products/0803906>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

# DFK-PC 5/ 7-STF-7,62 - Feed-through plug

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## DFK-PC MOUNT SET - Accessories

1054021

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

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



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