

1703726

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Feed-through connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: DFK-IPC 16/..-ST, 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: without, mounting method: without, 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

#### Commercial data

| Item number                          | 1703726       |
|--------------------------------------|---------------|
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | AA05          |
| Product key                          | AAEWBA        |
| GTIN                                 | 4017918994563 |
| Weight per piece (including packing) | 60 g          |
| Weight per piece (excluding packing) | 49.716 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/ST          |
| Product line          | COMBICON Connectors XL |
| Туре                  | Feed-through header    |
| Number of positions   | 5                      |
| Pitch                 | 10.16 mm               |
| Number of connections | 5                      |
| Number of rows        | 1                      |
| Number of potentials  | 5                      |
| Mounting type         | without                |

### Electrical properties

#### **Properties**

| 76 A                  |
|-----------------------|
| 70 A                  |
| 1000 V                |
| $0.35~\text{m}\Omega$ |
| 1000 V                |
| 8 kV                  |
| 1000 V                |
| 8 kV                  |
| 1000 V                |
| 6 kV                  |
|                       |

### Connection data

### Connection technology

| Туре                    | Feed-through header |
|-------------------------|---------------------|
| Connector system        | COMBICON PC 16      |
| Nominal cross section   | 16 mm²              |
| Contact connection type | Socket              |
|                         |                     |

#### Interlock

| Locking type  | without |
|---------------|---------|
| Mounting type | without |

#### 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 mm² 16 mm²                      |
| Conductor cross-section flexible                           | 0.75 mm² 16 mm²                      |
| Conductor cross-section AWG                                | 18 6                                 |



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| Conductor cross-section flexible, with ferrule without plastic sleeve                     | 0.5 mm² 16 mm² (Only in connection with CRIMPFOX 16 S) |
|---|--|
| Conductor cross-section, flexible, with ferrule, with plastic sleeve                      | 0.5 mm² 16 mm² (Only in connection with CRIMPFOX 16 S) |
| 2 conductors with same cross section, solid   | 0.75 mm² 6 mm²   |
| 2 conductors with same cross section, flexible  | 0.75 mm² 6 mm²   |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.5 mm² 4 mm²  |
| 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) | 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

#### **Dimensions**

| Dimensional drawing |
|---------------------|
|---------------------|



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| Pitch   | 10.16 mm                     |
|---|------------------------------|
| Width [w]   | 74.92 mm                     |
| Height [h]  | 32.05 mm                     |
| Length [I]  | 56.4 mm                      |
| Installed height                                      | 32.05 mm                     |
| chanical tests  |                              |
| est 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 | 0.75 mm² / solid / > 30 N    |
| setpoint/actual value                                 | 0.75 mm² / flexible / > 30 N |
|   | 16 mm² / solid / > 100 N     |
|   | 16 mm² / flexible / > 100 N  |
| nsertion and withdrawal forces                        |                              |
| Result  | Test passed                  |
| No. of cycles   | 50                           |
| Insertion strength per pos. approx.                   | 10 N                         |
| Withdraw strength per pos. approx.                    | 8 N                          |
| orque test  |                              |
| Specification   | IEC 60999-1:1999-11          |
| Contact holder in insert                              |                              |
| Specification   | IEC 60512-15-1:2008-05       |
| Contact holder in insert                              | Test passed                  |
| Requirements >20 N                                    | rost paces a                 |
| 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                  |
| risual inspection                                     |                              |
| Specification   | IEC 60512-1-1:2002-02        |
| Result  | Test passed                  |
| Dimension check                                       |                              |
| Specification   | IEC 60512-1-2:2002-02        |
|   |                              |



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### Electrical tests

| Thermal test   Test group C  |                       |
|--|-----------------------|
| Specification  | IEC 60512-5-1:2002-02 |
| Tested number of positions   | 9                     |
| Insulation resistance  |                       |
| Specification  | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions                       | > 5 MΩ                |
| insulation resistance, neighboring positions                       | - O IVIZ              |
| 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 clearance and groupes distances L2 Inculation coordination     |                       |
| Air clearances and creepage distances   2. Insulation coordination | IEC 60664-1:2020-05   |
| Specification  | IEC 00004-1.2020-05   |
| Insulating material group  | OTI 000               |
| 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



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Type of packaging

| pecification                                 | 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   |
| urability test                               |   |
| Specification                                | IEC 60512-9-1:2010-03   |
| Impulse withstand voltage at sea level       | 9.8 kV  |
| Contact resistance R <sub>1</sub>            | 0.35 mΩ   |
| Contact resistance R <sub>2</sub>            | 0.34 mΩ   |
| Insertion/withdrawal cycles                  | 50  |
| Insulation resistance, neighboring positions | > 5 MΩ  |
| limatic test                                 |   |
| Specification                                | ISO 6988:1985-02  |
| 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   |
| Town Hoquanay Minatana Voltage               | 1.20 KV   |
| mbient 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  |

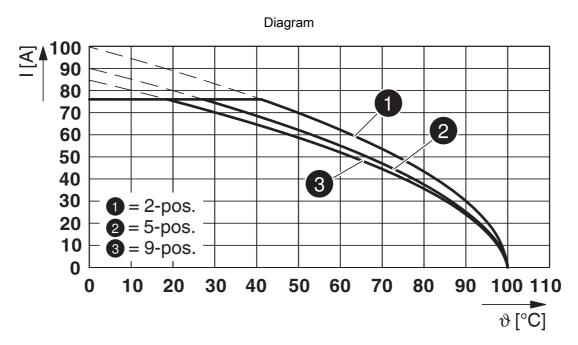
packed in cardboard



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## Drawings



Type: ISPC 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/1703726

| cULus Recog | cULus Recognized Approval ID: E60425-20040202 |                                |                   |                               |
|-------------|---|--------------------------------|-------------------|-------------------------------|
|             | Nominal voltage $U_N$                         | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| В           |   |                                |                   |                               |
|             | 600 V   | 55 A                           | 20 - 6            | -                             |
| С           |   |                                |                   |                               |
|             | 600 V   | 55 A                           | 20 - 6            | -                             |

|       | VDE approval of di<br>Approval ID: 40055586 | DE approval of drawings  oproval ID: 40055586 |                                |                   |                               |
|-------|---|---|--------------------------------|-------------------|-------------------------------|
|       |   | Nominal voltage $U_N$                         | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine |   |   |                                |                   |                               |
|       |   | 1000 V  | 76 A                           | -                 | 0.75 - 16                     |



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## Classifications

UNSPSC 21.0

#### **ECLASS**

|    | ECLASS-13.0 | 27460202 |
|----|-------------|----------|
|    | ECLASS-15.0 | 27460202 |
| ΕT | ТІМ         |          |
|    | ETIM 9.0    | EC002638 |
| UN | ISPSC       |          |

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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