1840573

https://www.phoenixcontact.com/us/products/1840573



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: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: DFK-PC 4/..-GF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Direct mounting, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON PC 4, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded 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
- · Screwable flange for superior mechanical stability
- · Flexible side panels enable convenient wall mounting prewired from the inside

Commercial data

| Item number | 1840573 |
|--------------------------------------|---------------------|
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | AA04 |
| Product key | AADWCA |
| Catalog page | Page 518 (C-1-2013) |
| GTIN | 4017918111724 |
| Weight per piece (including packing) | 18.53 g |
| Weight per piece (excluding packing) | 17.528 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |



https://www.phoenixcontact.com/us/products/1840573

Technical data

Product properties

| Туре | Feed-through header |
|---------------------------|------------------------|
| Product line | COMBICON Connectors L |
| Product type | Feed-through connector |
| Product family | DFK-PC 4/GF |
| Number of positions | 4 |
| Pitch | 7.62 mm |
| Number of connections | 4 |
| Number of rows | 1 |
| Mounting flange | Threaded flange |
| Number of potentials | 4 |
| Solder pins per potential | 1 |

Electrical properties

| Nominal current I _N | 20 A |
|--------------------------------|--------|
| Nominal voltage U _N | 630 V |
| Degree of pollution | 3 |
| Contact resistance | 0.4 mΩ |
| Rated voltage (III/3) | 400 V |
| Rated surge voltage (III/3) | 6 kV |
| Rated voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| Туре | Feed-through header |
|-------------------------|---------------------|
| Connector system | COMBICON PC 4 |
| Nominal cross section | 4 mm ² |
| Contact connection type | Pin |

Interlock

| Locking type | Screw locking mechanism |
|--|--------------------------------------|
| Mounting flange | Threaded 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 mm² 4 mm² |
| Conductor cross section flexible | 0.2 mm² 4 mm² |
| Conductor cross section AWG | 24 10 |

PHŒNIX CONTACT



1840573

https://www.phoenixcontact.com/us/products/1840573

| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm² 4 mm² |
|---|---|
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm² 4 mm² |
| 2 conductors with same cross section, solid | 0.2 mm ² 2.5 mm ² |
| 2 conductors with same cross section, flexible | 0.2 mm ² 2.5 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.2 mm ² 1.5 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² 2.5 mm ² |
| Cylindrical gauge a x b / diameter | 3.6 mm x 3.1 mm / 3.0 mm |
| Stripping length | 7 mm |
| Tightening torque | 0.5 Nm 0.6 Nm |

Mounting

| Mounting type | Direct mounting |
|-----------------------|-----------------|
| Drive form screw head | Slotted (L) |
| Drive form screw head | Slotted (L) |

Material specifications

| 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 (5 - 7 μm Sn) |
| Metal surface contact area (top layer) | Tin (5 - 7 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 | VO |
| 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



1840573

https://www.phoenixcontact.com/us/products/1840573

| Dimensional drawing | h |
|---------------------|---------|
| Pitch | 7.62 mm |
| Width [w] | 52.1 mm |
| Height [h] | 30.5 mm |
| Length [I] | 32 mm |
| Installed height | 30.5 mm |

Mechanical tests

| Test for conductor damage and slackening | | |
|--|---|--|
| Specification | IEC 60999-1:1999-11 | |
| Result | Test passed | |
| | | |
| Pull-out test | | |
| Pull-out test Specification | IEC 60999-1:1999-11 | |
| | IEC 60999-1:1999-11 0.2 mm² / solid / > 10 N | |

Insertion and withdrawal forces

| Insertion and withdrawal forces | |
|-------------------------------------|------------------------------------|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Torque test | |
| Specification | IEC 60999-1:1999-11 |
| Resistance of inscriptions | |
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |
| Polarization and coding | |
| Specification | IEC 60512-7:1993-08 (Polarization) |
| Result | Test passed |
| Visual inspection | |
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |
| Dimension check | |
| Specification | IEC 60512-1-2:2002-02 |

4 mm² / solid / > 60 N 4 mm² / flexible / > 60 N



1840573

https://www.phoenixcontact.com/us/products/1840573

| Result | Test passed |
|--|-----------------------|
| ectrical tests | |
| | |
| Thermal test Test group C | |
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 12 |
| nsulation resistance | |
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | $10^{12} \Omega$ |
| Air clearances and creepage distances | |
| | IEC 60664-1:2007-04 |
| Specification | |
| Insulating material group | |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 400 V |
| Rated surge voltage (III/3) | 6 kV |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm |
| minimum creepage distance (III/3) | 5.5 mm |
| Rated insulation voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| minimum clearance value - non-homogenous field (III/2) | 5.5 mm |
| minimum creepage distance (III/2) | 5.5 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

| ration test | |
|--|-------------------------|
| Specification | IEC 60068-2-6:1995-03 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz 60.1 Hz) |
| Sweep speed | 5g (60.1 Hz 150 Hz) |
| Test duration per axis | 2.5 h |
| urability test | |
| Specification | IEC 60512-5:1992-08 |
| Impulse withstand voltage at sea level | 7.3 kV |
| Contact resistance R ₁ | 0.4 mΩ |
| Contact resistance R ₂ | 0.6 mΩ |
| Contact resistance reg | |

Climatic test



1840573

https://www.phoenixcontact.com/us/products/1840573

| orrosive stress KFW 0.2 S/1 cycle hermal stress 100 °C/168 h ower-frequency withstand voltage 3.31 kV ient conditions -40 °C 100 °C (dependent on the derating curve) mbient temperature (operation) -40 °C 70 °C elative humidity (storage/transport) 30 % 70 % | | |
|--|---|--|
| hermal stress 100 °C/168 h ower-frequency withstand voltage 3.31 kV bient conditions -40 °C 100 °C (dependent on the derating curve) mbient temperature (operation) -40 °C 70 °C relative humidity (storage/transport) 30 % 70 % | pecification | ISO 6988:1985-02 |
| Power-frequency withstand voltage 3.31 kV abient conditions -40 °C 100 °C (dependent on the derating curve) Ambient temperature (operation) -40 °C 70 °C Ambient temperature (storage/transport) -40 °C 70 °C Relative humidity (storage/transport) 30 % 70 % | Corrosive stress | KFW 0.2 S/1 cycle |
| bient conditions Ambient temperature (operation) Ambient temperature (storage/transport) Relative humidity (storage/transport) -40 °C 70 °C 30 % 70 % | Thermal stress | 100 °C/168 h |
| Ambient temperature (operation)-40 °C 100 °C (dependent on the derating curve)Ambient temperature (storage/transport)-40 °C 70 °CRelative humidity (storage/transport)30 % 70 % | Power-frequency withstand voltage | 3.31 kV |
| Ambient temperature (storage/transport) -40 °C 70 °C Relative humidity (storage/transport) 30 % 70 % | nbient conditions | $40 ^{\circ}\text{C}$ $100 ^{\circ}\text{C}$ (dependent on the derating curve) |
| Relative humidity (storage/transport) 30 % 70 % | | |
| | Ambient temperature (storage/transport) | -40 °C 70 °C |
| | Relative humidity (storage/transport) | 30 % 70 % |
| Ambient temperature (assembly) -5 °C 100 °C | Ambient temperature (assembly) | -5 °C 100 °C |
| | aging specifications | |
| kaging specifications | Type of packaging | packed in cardboard |

1840573

https://www.phoenixcontact.com/us/products/1840573



Classifications

ECLASS

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

ETIM

| | ETIM 9.0 | EC002638 |
|----|-------------|----------|
| UN | NSPSC | |
| | UNSPSC 21.0 | 39121400 |

1840573

https://www.phoenixcontact.com/us/products/1840573



Environmental product compliance

| REACh SVHC | Lead 7439-92-1 |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Phoenix Contact 2024 © - 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