

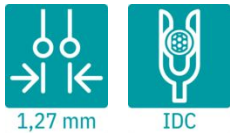
FP 1,27/ 16-FWL-21/.../... - Preassembled IDC female connector



1010215

<https://www.phoenixcontact.com/us/products/1010215>

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Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type: Flat cable, For preassembled samples, see the "Accessories" tab., product range: FR 1,27/...-Cabling

The figure shows a 12-pos. version with 12 contacts

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Compact, high-position board-to-board or wire-to-board connectors for space-saving device designs
- Can be ordered pre-assembled: IDC female connectors with flat-ribbon cable enable immediate use in the device

Commercial data

| | |
|------------------------|--------------------------------|
| Item number | 1010215 |
| Packing unit | 50 pc |
| Minimum order quantity | 100 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA24 |
| Product key | AAXPAA |
| Customs tariff number | 85444290 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|---------------------|--------------------------------|
| Product type | Assembled IDC female connector |
| Product family | FR 1,27/...-Cabling |
| Number of positions | 16 |
| Pitch | 1.27 mm |
| Number of rows | 2 |

Electrical properties

Properties

| | |
|-----------------------|---|
| Nominal current I_N | 1.2 A IEC 60512-5-2:2002-02 (at 20°C 50-pos.) |
| Contact resistance | 10 mΩ |
| Test voltage | 500 V AC IEC 60512-4-1:2003-05 |

Notes

| | |
|------------------------------|--|
| Note on application | Please observe the application note on self-assembly in the download area. |
| Note regarding documentation | Current documents such as 3D models, products family drawings, data sheets or packaging drawings are available in the Download Center. |
| Notes on operation | The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1. |

Dimensions

| | |
|-------|---------|
| Pitch | 1.27 mm |
|-------|---------|

Application

| | |
|-------------------|---|
| Center offset | ± 0.7 mm in longitudinal and transverse direction |
| Angular tolerance | ± 4 ° in longitudinal direction |
| | ± 2 ° in transverse direction |

Mechanical tests

Insertion and withdrawal forces

| | |
|-------------------------------------|-------------|
| Result | Test passed |
| No. of cycles | 500 |
| Insertion strength per pos. approx. | 0.5 N |
| Withdraw strength per pos. approx. | 0.5 N |

Electrical tests

Thermal test | Test group C

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| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-2:2002-02 |
| Tested number of positions | 50 |

Insulation resistance

| | |
|--|---------------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | $\geq 10 \text{ G}\Omega$ |

Environmental and real-life conditions

Durability test

| | |
|--|-----------------------------------|
| Specification | IEC 60512-9-1:2010-03 (following) |
| Impulse withstand voltage at sea level | 0.8 kV |
| Contact resistance R_1 | 10 m Ω |
| Contact resistance R_2 | 10 m Ω |
| Insertion/withdrawal cycles | 500 |
| Insulation resistance, neighboring positions | $\geq 10 \text{ G}\Omega$ |

Climatic test

| | |
|-----------------------------------|------------------------|
| Specification | IEC 60512-11-7:2003-05 |
| Corrosive stress | Method 1, 10 days |
| Power-frequency withstand voltage | 500 V AC |

Vibration test

| | |
|------------------------|----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 2000 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 1.5 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 20g (60.1 Hz ... 2000 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Shocks

| | |
|-----------------|-----------------------------------|
| Specification | IEC 60068-2-27:2008-02 |
| Pulse shape | Semi-sinusoidal |
| Acceleration | 50g |
| Shock duration | 11 ms |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

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) | -55 °C ... 125 °C |

Ambient conditions

| | |
|---------------------------------|-------------------|
| Ambient temperature (operation) | -55 °C ... 125 °C |
|---------------------------------|-------------------|

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| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Connector

Connection 1

| | |
|----------------------------|-----|
| Insulating material | LCP |
| CTI according to IEC 60112 | 175 |

Cable/line

| | |
|--------------|------------------------------|
| Cable length | Free input (0.05 ... 0.95 m) |
|--------------|------------------------------|

Flat cable [PVC]

| | |
|---|--------------------------|
| Note | Coded wire: red |
| UL AWM Style | 2678 |
| Shielded | no |
| Cable type | Flat cable [PVC] |
| Conductor structure | 16 x 7 x 0.102 mm |
| Conductor structure signal line | 7x 0.10 mm |
| AWG signal line | 30 |
| Conductor cross-section | 0.06 mm ² |
| Wire diameter incl. insulation | 0.66 mm |
| External sheath, color | gray |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | PVC |
| Pitch | 0.635 mm |
| Max. conductor resistance | ≤ 354 Ω/m |
| Insulation resistance | ≥ 20 MΩ*km |
| Test voltage Core/Core | 1500 V |
| Flame resistance | UL VW-1 |
| Ambient temperature (mobile installation) | -10 °C ... 105 °C |
| Ambient temperature (installation) | -30 °C ... 105 °C |

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Classifications

ECLASS

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

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