

## IDC female connectors - FP 1,27/ 20-FWL - 1714904

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IDC female connector, Nominal current at 20 °C: 1.2 A, Test voltage: 500 V AC, number of positions: 20, pitch: 1.27 mm, color: black, contact surface: Gold

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



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 360 pc                                                                                                  |
| GTIN         | <br>4 055626 402840 |
| GTIN         | 4055626402840                                                                                           |

### Technical data

#### Item properties

|                           |                         |
|---------------------------|-------------------------|
| Brief article description | IDC female connectors   |
| Plug-in system            | FINEPITCH 1,27 mm       |
| Type of contact           | Female connector        |
| Range of articles         | FP 1,27/...-FWL         |
| Pitch                     | 1.27 mm                 |
| Number of positions       | 20                      |
| Connection method         | Displacement connection |
| Number of levels          | 2                       |
| Number of potentials      | 20                      |

#### Electrical data

|                          |                 |
|--------------------------|-----------------|
| Nominal current at 20 °C | 1.2 A (50-pos.) |
|--------------------------|-----------------|

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## Technical data

### Electrical data

|                       |                                  |
|-----------------------|----------------------------------|
| Test voltage          | 500 V AC                         |
| Contact resistance    | ≤10 mΩ, (IEC 60512-2-1:2002-02)  |
| Insulation resistance | ≥ 10 GΩ, (IEC 60512-3-1:2002-02) |

### Connection capacity

|                                     |                         |
|-------------------------------------|-------------------------|
| Connection method                   | Displacement connection |
| Conductor cross section AWG / kcmil | 30                      |

### 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                   | Selective coating                                                                 |
| Metal surface contact area (top layer)    | Gold (Au)                                                                         |
| Metal surface contact area (middle layer) | Nickel (Ni), Palladium nickel (PdNi)                                              |

### Material data - housing

|                                        |      |
|----------------------------------------|------|
| Insulating material                    | LCP  |
| Insulating material group              | IIIa |
| CTI according to IEC 60112             | 175  |
| Flammability rating according to UL 94 | V0   |

### Dimensions for the product

|              |          |
|--------------|----------|
| Length [ l ] | 13.65 mm |
| Width [ w ]  | 18.86 mm |
| Height [ h ] | 4.2 mm   |
| Pitch        | 1.27 mm  |

### Dimensions for the application

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

### Packaging information

|                            |      |
|----------------------------|------|
| Type of packaging          | Tray |
| Pieces per package         | 360  |
| Denomination packing units | Pcs. |

### General product information

|              |                                                                                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Type of note | Note on application                                                                                                                    |
|              | Note regarding documentation                                                                                                           |
|              | Notes on operation                                                                                                                     |
| Note         | Please observe the application note on self-assembly in the download area.                                                             |
|              | Current documents such as 3D models, products family drawings, data sheets or packaging drawings are available in the Download Center. |

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## Technical data

### General product information

|  |                                                                                                                                                                                                                      |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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. |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Ambient conditions

|                                         |                   |
|-----------------------------------------|-------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Ambient temperature (assembly)          | -5 °C ... 100 °C  |
| Ambient temperature (operation)         | -55 °C ... 125 °C |

### Mechanical tests

|                                            |               |
|--------------------------------------------|---------------|
| Insertion and withdrawal force per contact | approx. 0.5 N |
|--------------------------------------------|---------------|

### Service life

|              |                                                      |
|--------------|------------------------------------------------------|
| Service life | 500 Insertion/withdrawal cycles, Performance level 1 |
|--------------|------------------------------------------------------|

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Classifications

### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440309 |
| eCl@ss 4.0    | 27260700 |
| eCl@ss 4.1    | 27260700 |
| eCl@ss 5.0    | 27260700 |
| eCl@ss 5.1    | 27260700 |
| eCl@ss 6.0    | 27260700 |
| eCl@ss 7.0    | 27440402 |
| eCl@ss 8.0    | 27440309 |
| eCl@ss 9.0    | 27440309 |

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002638 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

## Approvals

### Approvals

#### Approvals

cULus Recognized / EAC

## IDC female connectors - FP 1,27/ 20-FWL - 1714904

### Approvals

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Ex Approvals

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### Approval details

cULus Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> E118976-20170331

EAC



B.01687

### Accessories

### Additional products

SMD male connectors - FP 1,27/ 20-MV 3,25 - 1714927



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 20, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

SMD male connectors - FP 1,27/ 20-MV 1,75 - 1714937



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 20, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

SMD male connectors - FP 1,27/ 20-MH - 1714915



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 20, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

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