

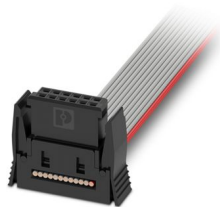
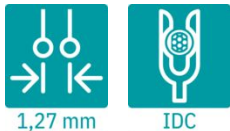
# FP 1,27/ 50-FWL-10/.../... - Preassembled IDC female connector



1010254

<https://www.phoenixcontact.com/us/products/1010254>

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

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

## 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	1010254
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	50
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
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#### 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 $\Omega$
Contact resistance $R_2$	10 m $\Omega$
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)
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### Flat cable [PVC]

Note	Coded wire: red
UL AWM Style	2678
Shielded	no
Cable type	Flat cable [PVC]
Conductor structure	50 x 7 x 0.102 mm
Conductor structure signal line	7x 0.10 mm
AWG signal line	30
Conductor cross-section	0.06 mm <sup>2</sup>
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
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### 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](mailto:info@phoenixcon.com)