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SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 40, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

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

#### Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Stacked, coplanar or orthogonal PCB connections enable maximum flexibility in the device
- Male and female connectors of different height can be combined for individual PCB spacing of 8 mm ... 13.8 mm



# **Key Commercial Data**

Packing unit	560 pc
Minimum order quantity	560 pc
GTIN	4 055626 402963
GTIN	4055626402963

#### Technical data

#### Item properties

Brief article description	SMD male connectors
Plug-in system	FINEPITCH 1,27 mm
Type of contact	Male connector
Range of articles	FP 1,27/MH
Pitch	1.27 mm
Number of positions	40
Mounting type	SMD soldering
Pin layout	Linear pad geometry
Number of levels	2
Number of potentials	40



# Technical data

# Electrical data

Nominal current at 20 °C	1.4 A (50-pos.)
Test voltage	500 V AC
Contact resistance	$\leq$ 25 m $\Omega$ , (IEC 60512-2-1:2002-02)
Insulation resistance	≥ 10 GΩ, (IEC 60512-3-1:2002-02)

#### 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	Illa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

# Dimensions for the product

Length [1]	7.2 mm
Width [w]	30.49 mm
Height [ h ]	5 mm
Pitch	1.27 mm
Height (without solder pin)	4.2 mm
Pin spacing	1.27 mm
Coplanarity	≤ 0.1 mm

# Dimensions for PCB design

Pin spacing	1.27 mm
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# Dimensions for the application

Contact cover	0.9 mm
Overlap length	1.5 mm
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	44 mm wide tape
Pieces per package	560
Denomination packing units	Pcs.
[W] tape width	44 mm
[A] coil diameter	330 mm



# Technical data

# Packaging information

[W2] coil overall dimension	50.4 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

#### General product information

Type of note	Notes on operation
Note	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.

# Processing notes

Process	Reflow soldering
Specification	Following IPC/JEDEC J-STD-020E:2014-12
Moisture Sensitive Level	MSL 1
Classification temperature T <sub>c</sub>	260 °C

#### 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

# Air clearances and creepage distances

Air clearances and creepage distances	min. 0.4 mm

# Current carrying capacity / derating curves

Caption	Type: FP 1,27/FH with FP 1,27/MH
Specification	IEC 60512-5-2:2002-02
Reduction factor	0.8
Note	max. 1.4 A at 20 °C (50-pos.)

# Service life

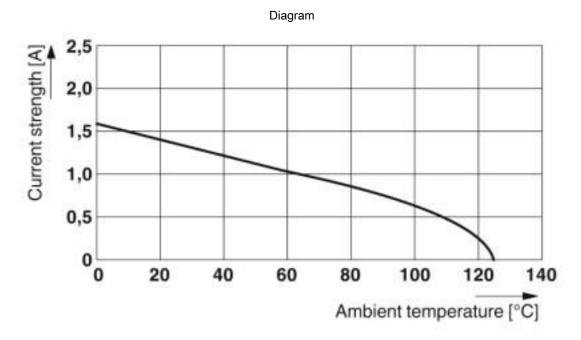
Service life	500 Insertion/withdrawal cycles, Performance level 1
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# **Environmental Product Compliance**

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

# Drawings





Type: FP 1,27/...-FH with FP 1,27/...-MH

#### Classifications

# eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCI@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCI@ss 8.0	27440402
eCl@ss 9.0	27440402

#### **ETIM**

ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

# Approvals

#### Approvals

Approvals

cULus Recognized / EAC



# Approvals

Ex Approvals

#### 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 female connectors - FP 1,27/ 40-FV 9,05 - 1714885



SMD female connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 40, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

SMD female connectors - FP 1,27/ 40-FV 6,25 - 1714897



SMD female connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 40, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

SMD female connectors - FP 1,27/ 40-FH - 1714877



SMD female connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 40, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering



#### Accessories

IDC female connectors - FP 1,27/ 40-FWL - 1714908



IDC female connector, Nominal current at 20 °C: 1.2 A, Test voltage: 500 V AC, number of positions: 40, pitch: 1.27 mm, color: black, contact surface: Gold

Preassembled IDC female connector - FP 1,27/40-FWL-10/.../... - 1010246



Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type:Flat-ribbon conductor, Flat-ribbon conductor

Preassembled IDC female connector - FP 1,27/ 40-FWL-11/.../... - 1010581



Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type:Flat-ribbon conductor, Flat-ribbon conductor

Preassembled IDC female connector - FP 1,27/ 40-FWL-12/.../... - 1010237



Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type:Flatribbon conductor, Flat-ribbon conductor

Preassembled IDC female connector - FP 1,27/ 40-FWL-20/.../... - 1010228



Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type:Flat-ribbon conductor, Flat-ribbon conductor



#### Accessories

Preassembled IDC female connector - FP 1,27/ 40-FWL-21/.../... - 1010204



Assembled IDC female connector, rated current: 1.2 A, cable length: Free input (0.05 ... 0.95 m), Cable type:Flat-ribbon conductor, Flat-ribbon conductor

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