

FP 1,27/ 68-FH - SMD female connectors

1714879

<https://www.phoenixcontact.com/us/products/1714879>



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SMD female connector, nominal current: 1.4 A, Test voltage: 500 V AC, number of positions: 68, pitch: 1.27 mm, color: black, contact surface: Au, contact connection type: Socket, mounting: SMD soldering



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
- 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

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1714879 |
| Packing unit | 560 pc |
| Minimum order quantity | 560 pc |
| Sales key | NULL |
| Product key | AAXAAA |
| GTIN | 4055626400792 |
| Weight per piece (including packing) | 3.634 g |
| Weight per piece (excluding packing) | 3.634 g |
| Customs tariff number | 85366930 |
| Country of origin | CZ |

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Technical data

Product properties

| | |
|----------------------|----------------------|
| Product type | SMD female connector |
| Product family | FR 1,27/...-FH |
| Number of positions | 68 |
| Pitch | 1.27 mm |
| Number of rows | 2 |
| Number of potentials | 68 |
| Pin layout | Linear pad geometry |

Data management status

| | |
|------------------|----|
| Article revision | 01 |
|------------------|----|

Electrical properties

| | |
|-----------------------|---|
| Nominal current I_N | 1.4 A IEC 60512-5-2:2002-02 (at 20°C 50-pos.) |
| Contact resistance | 25 mΩ |
| Test voltage | 500 V AC IEC 60512-4-1:2003 |

Mounting

| | |
|---------------|---------------------|
| Mounting type | SMD soldering |
| Pin layout | Linear pad geometry |

Processing notes

| | |
|----------------------------------|------------------|
| Process | Reflow soldering |
| Moisture Sensitive Level | MSL 1 |
| Classification temperature T_c | 260 °C |

Material specifications

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) |
| Metal surface soldering area (top layer) | Tin (Sn) |

Material data - housing

| | |
|--|--------------|
| Color (Housing) | black (9005) |
| Insulating material | LCP |
| Insulating material group | IIIb |
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | V0 |

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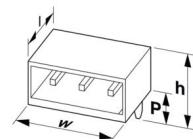
Notes

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

Dimensional drawing



Pitch

1.27 mm

Width [w]

48.27 mm

Height [h]

4.55 mm

Length [l]

7.2 mm

Installed height

3.8 mm

Application

Contact cover

0.9 mm

Center offset

± 0.7 mm in longitudinal and transverse direction

Wipe length

1.5 mm

Angular tolerance

± 4 ° in longitudinal direction

± 2 ° in transverse direction

PCB design

Pad geometry

0.8 x 0.8 mm

Pin spacing

1.27 mm

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 |

Resistance of inscriptions

| | |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |

Visual inspection

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |

Dimension check

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| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| 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 | $\geq 10 \text{ G}\Omega$ |

Air clearances and creepage distances |

| | |
|---|--------|
| Insulating material group | IIIb |
| Minimum value for clearance and creepage distance | 0.4 mm |

Environmental and real-life conditions

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 |

Durability test

| | |
|--|-----------------------------------|
| Specification | IEC 60512-9-1:2010-03 (following) |
| Impulse withstand voltage at sea level | 0.8 kV |
| Contact resistance R_1 | 25 m Ω |
| Contact resistance R_2 | 25 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 |

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.) |

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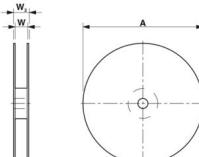
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Ambient conditions

| | |
|---|-------------------|
| Ambient temperature (operation) | -55 °C ... 125 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

| | |
|-----------------------------|--|
| Dimensional drawing |  |
| Type of packaging | 72 mm wide tape |
| [W] tape width | 72 mm |
| [W2] coil overall dimension | 78.4 mm |
| [A] coil diameter | 330 mm |
| Outer packaging type | Transparent-Bag |
| ESD level | (D) electrostatically conductive |
| Specification | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

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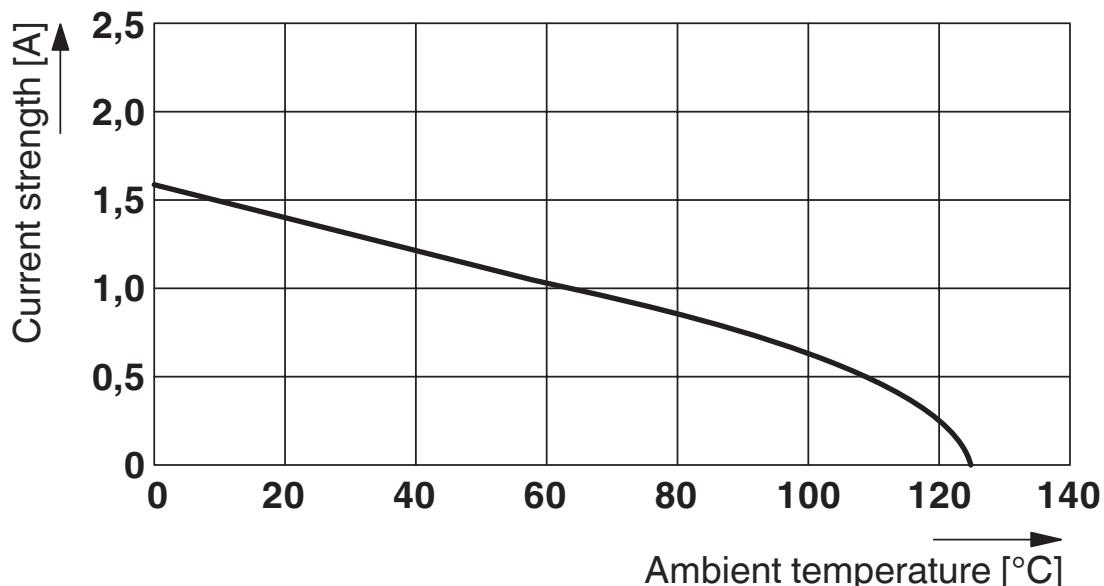
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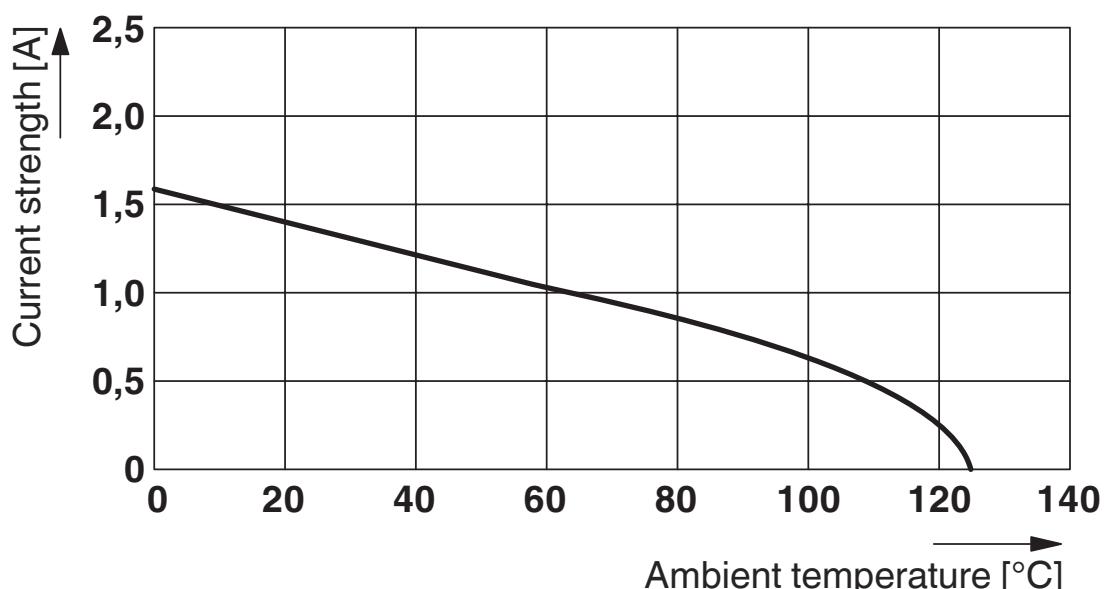
Drawings

Diagram



Type: FP 1,27/...-FH with FP 1,27/...-MV 1,75

Diagram



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

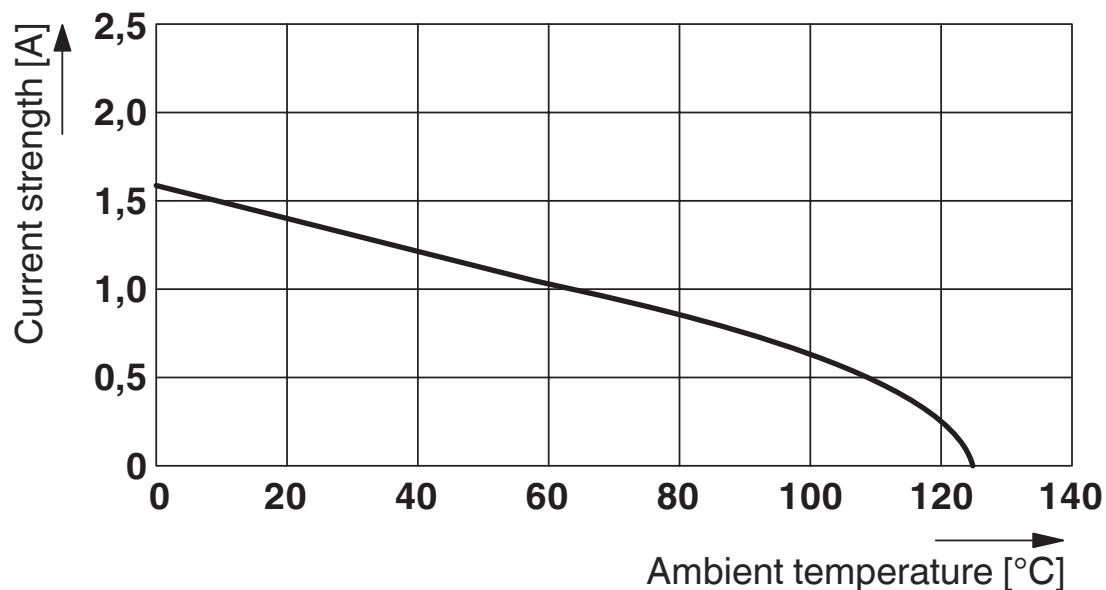
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Diagram



Type: FP 1,27/...-FH with FP 1,27/...-MV 3,25

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002637 |
|----------|----------|

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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