

FP 1,27/ 26-MV 3,25 - SMD male connectors



1714928

<https://www.phoenixcontact.com/us/products/1714928>

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SMD male connector, nominal current: 1.4 A, Test voltage: 500 V AC, number of positions: 26, pitch: 1.27 mm, color: black, contact surface: Gold, contact connection type: Pin, 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 | 1714928 |
| Packing unit | 1 pc |
| Minimum order quantity | 280 pc |
| Sales key | AA24 |
| Product key | AAXGAC |
| GTIN | 4055626403038 |
| Weight per piece (including packing) | 2.653 g |
| Weight per piece (excluding packing) | 2.22 g |
| Customs tariff number | 85366930 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|----------------------|---------------------|
| Product type | SMD male connector |
| Product family | FR 1,27/...-MV 3,25 |
| Number of positions | 26 |
| Pitch | 1.27 mm |
| Number of rows | 2 |
| Number of potentials | 26 |
| Pin layout | Linear pad geometry |

Electrical properties

| | |
|----------------------------|---|
| Nominal current I_N | 1.4 A IEC 60512-5-2:2002-02 (at 20°C 50-pos.) |
| Nominal voltage U_N | AC |
| Degree of pollution | 3 |
| Contact resistance | 25 mΩ |
| Test voltage | 500 V AC IEC 60512-4-1:2003 |
| Rated voltage (III/3) | 500 V |
| Rated voltage (II/2) | 10 V |
| Rated surge voltage (II/2) | 0.8 kV |

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 |

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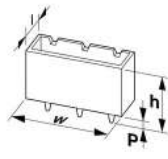
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| | |
|--|-----|
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | V0 |

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] | 21.6 mm |
| Height [h] | 8.95 mm |
| Length [l] | 7.2 mm |
| Installed height | 8.25 mm |

Application

| | |
|-------------------|--|
| Contact cover | 0.9 mm |
| Center offset | ± 0.7 mm in longitudinal and transverse direction |
| Stack height | 9.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 1,27/...-FV 6,25) |
| | 12.3 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 1,27/...-FV 9,05) |
| Wipe length | 1.5 mm |
| Angular tolerance | ± 4 ° in longitudinal direction |
| | ± 2 ° in transverse direction |

PCB design

| | |
|--------------|--------------|
| Pad geometry | 0.8 x 1.1 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 |

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Visual inspection

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

Dimension check

| | |
|---------------|-----------------------|
| 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 |
| Comparative tracking index (IEC 60112) | CTI 175 |
| Rated insulation voltage (III/3) | 500 V |
| Rated insulation voltage (II/2) | 10 V |
| Rated surge voltage (II/2) | 0.8 kV |
| minimum clearance value - non-homogenous field (II/2) | 0.4 mm |
| minimum creepage distance (II/2) | 0.4 mm |
| 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) |
| Sweep speed | 20g (60.1 Hz ... 2000 Hz) |
| Test duration per axis | 2.5 h |

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

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| | |
|-----------------------------------|------------------------|
| 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.) |

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

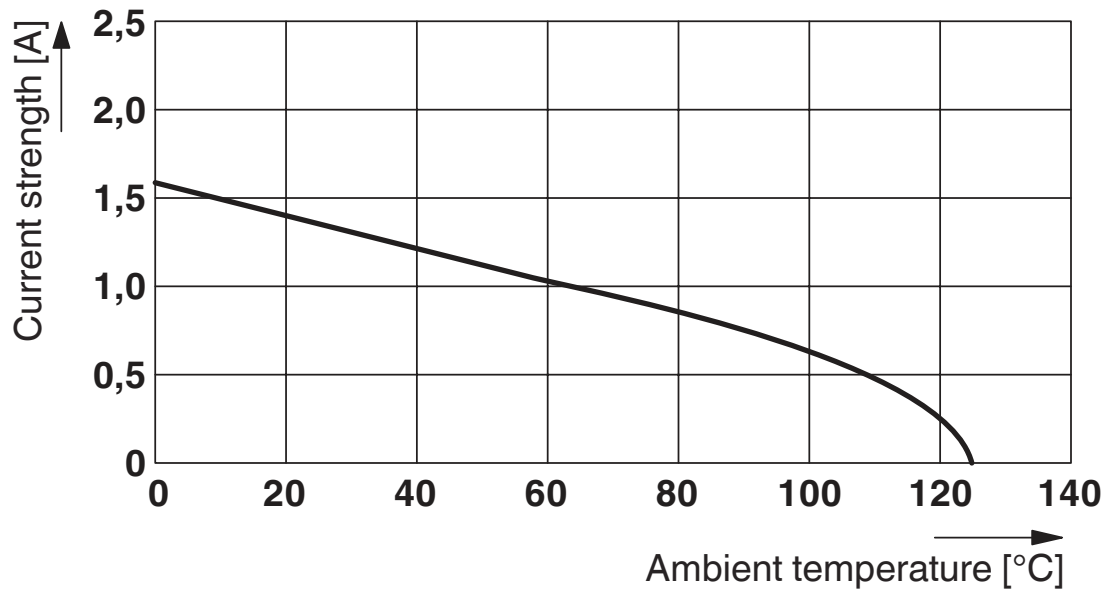
| | |
|-----------------------------|--|
| Dimensional drawing | |
| Type of packaging | 44 mm wide tape |
| [W] tape width | 44 mm |
| [W2] coil overall dimension | 50.4 mm |
| [A] coil diameter | 330 mm |
| Outer packaging type | Transparent-Bag |
| ESD level | (D) electrostatically conductive |
| Specification | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

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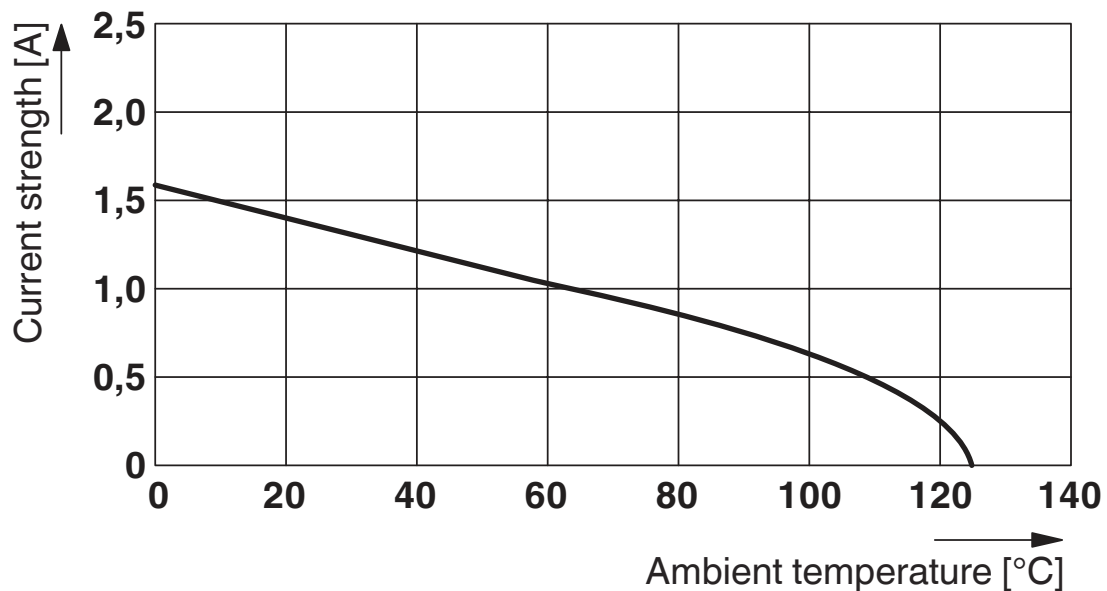
Drawings

Diagram



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

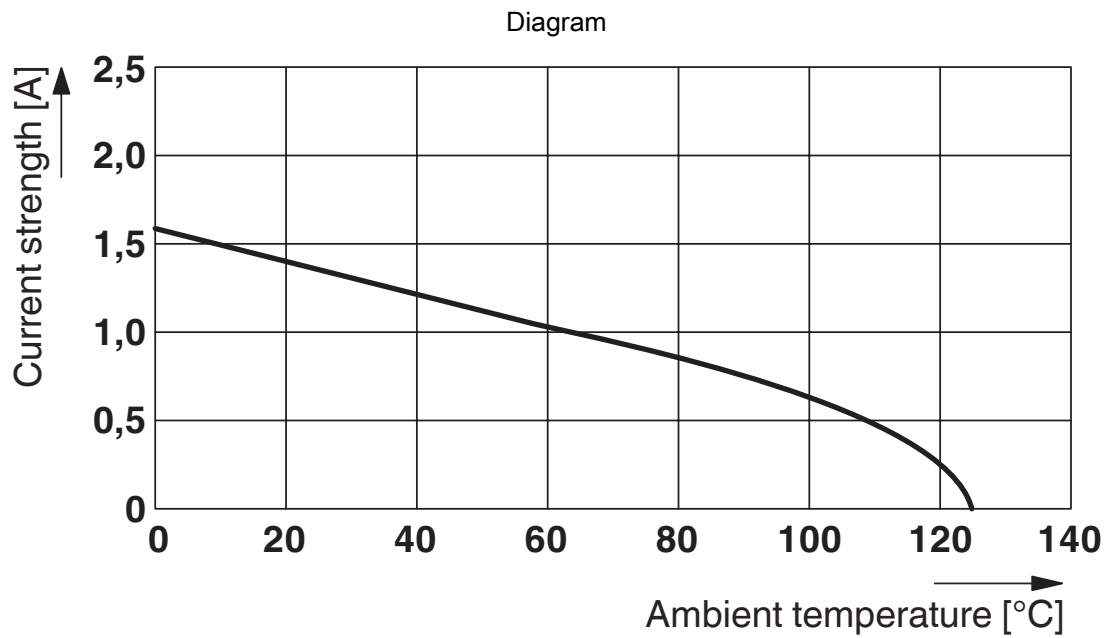
Diagram



Type: FP 1,27/...-FV 9,05 with FP 1,27/...-MV 3,25

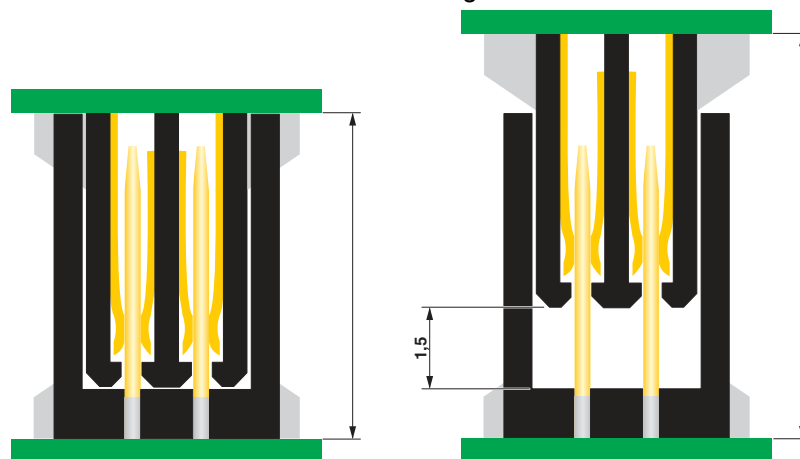
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Type: FP 1,27/...-FV 6,25 with FP 1,27/...-MV 3,25

Schematic diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1714928>



cULus Recognized

Approval ID: E118976-20170331

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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

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

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Accessories

FP 1,27/ 26-FV 9,05 - SMD female connectors

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SMD female connector, nominal current: 1.4 A, Test voltage: 500 V AC, number of positions: 26, pitch: 1.27 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

FP 1,27/ 26-FV 6,25 - SMD female connectors

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SMD female connector, nominal current: 1.4 A, Test voltage: 500 V AC, number of positions: 26, pitch: 1.27 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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FP 1,27/ 26-FH - SMD female connectors

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SMD female connector, nominal current: 1.4 A, Test voltage: 500 V AC, number of positions: 26, pitch: 1.27 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering



FP 1,27/ 26-FWL - IDC female connectors

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IDC female connector, nominal current: 1.2 A, Test voltage: 500 V AC, number of positions: 26, pitch: 1.27 mm, number of rows: 2, color: black, contact surface: Gold, contact connection type: Socket, For preassembled samples, see the "Accessories" tab.



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FP 1,27/ 26-FWL-10/.../... - Preassembled IDC female connector

1010256

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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-ribbon conductor, Flat-ribbon conductor. For preassembled samples, see the "Accessories" tab.

FP 1,27/ 26-FWL-11/.../... - Preassembled IDC female connector

1010248

<https://www.phoenixcontact.com/us/products/1010248>



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. For preassembled samples, see the "Accessories" tab.

FP 1,27/ 26-MV 3,25 - SMD male connectors

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FP 1,27/ 26-FWL-12/.../... - Preassembled IDC female connector

1010239

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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-ribbon conductor, Flat-ribbon conductor. For preassembled samples, see the "Accessories" tab.

FP 1,27/ 26-FWL-20/.../... - Preassembled IDC female connector

1010230

<https://www.phoenixcontact.com/us/products/1010230>



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. For preassembled samples, see the "Accessories" tab.

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FP 1,27/ 26-FWL-21/.../... - Preassembled IDC female connector

1010211

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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-ribbon conductor, Flat-ribbon conductor. For preassembled samples, see the "Accessories" tab.

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