

# FP 0,8/ 80-MH-SH - SMD male connector, shielded



1043794

<https://www.phoenixcontact.com/us/products/1043794>

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shielded SMD male connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 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
- Reliable mechanical and electrical connections, thanks to the double-sided ScaleX contact system
- Robustness: ScaleX technology for high tolerance compensation and protection of contacts
- Flexible device design: various numbers of positions, designs, and stack heights with high wipe lengths

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1043794       |
| Packing unit                         | 400 pc        |
| Sales key                            | AA23          |
| Product key                          | AAWJDA        |
| GTIN                                 | 4055626616919 |
| Weight per piece (including packing) | 5.105 g       |
| Weight per piece (excluding packing) | 5.105 g       |
| Customs tariff number                | 85366930      |
| Country of origin                    | CN            |

# FP 0,8/ 80-MH-SH - SMD male connector, shielded



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## Technical data

### Product properties

|                           |                             |
|---------------------------|-----------------------------|
| Product type              | shielded SMD male connector |
| Product family            | FP 0,8/...-MH-SH            |
| Number of positions       | 80                          |
| Pitch                     | 0.8 mm                      |
| Number of rows            | 2                           |
| Number of potentials      | 80                          |
| Pin layout                | Linear pad geometry         |
| Electrical characteristic | shielded                    |

### Electrical properties

|                           |                                               |
|---------------------------|-----------------------------------------------|
| Nominal current $I_N$     | 1.7 A IEC 60512-5-2:2002-02 (at 20°C 80-pos.) |
| Degree of pollution       | 3                                             |
| Contact resistance        | 25 mΩ                                         |
| Test voltage              | 500 V AC IEC 60512-4-1:2003                   |
| Electrical characteristic | shielded                                      |

### 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)                                                                      |
| Metal surface soldering area (top layer)    | Tin (Sn)                                                                         |
| Metal surface soldering area (middle layer) | Nickel (Ni)                                                                      |

### Material data - housing

|                            |              |
|----------------------------|--------------|
| Color (Housing)            | black (9005) |
| Insulating material        | LCP          |
| Insulating material group  | IIIb         |
| CTI according to IEC 60112 | 150          |

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Flammability rating according to UL 94

V0

## Notes

Notes on operation

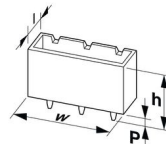
The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1.

Details for soldering processes

The items are suitable for assembly on both sides and for overhead soldering.

## Dimensions

Dimensional drawing



Pitch

0.8 mm

Width [w]

36.4 mm

Height [h]

7.05 mm

Length [l]

8.95 mm

Installed height

6.45 mm

## Application

Contact cover

0.8 mm

Center offset

± 0.7 mm in longitudinal and transverse direction

Wipe length

1.5 mm

Angular tolerance

± 5 ° in longitudinal and transverse direction (when plugging in)  
± 5 ° in longitudinal and transverse direction (when plugged in)

Axial offset in X direction (longitudinal)

± 0.3 mm (Tolerance compensation when plugged in)

Axial offset in Y direction (transversal)

± 0.3 mm (Tolerance compensation when plugged in)

## PCB design

Pad geometry

0.5 x 1 mm

## Electrical tests

### Thermal test | Test group C

Specification

IEC 60512-5-2:2002-02

Tested number of positions

80

### Insulation resistance

Specification

IEC 60512-3-1:2002-02

Insulation resistance, neighboring positions

≥ 5 GΩ

### Air clearances and creepage distances |

Insulating material group

IIIb

Minimum value for clearance and creepage distance

0.25 mm

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## 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 ... 58 Hz)                 |
| Sweep speed            | 200 m/s <sup>2</sup> (58 Hz ... 2000 Hz) |
| Test duration per axis | 2.5 h                                    |

### Durability test

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Specification                     | IEC 60512-9-1:2010-03 (following) |
| Contact resistance R <sub>1</sub> | 25 mΩ                             |
| Contact resistance R <sub>2</sub> | 25 mΩ                             |
| Insertion/withdrawal cycles       | 500                               |

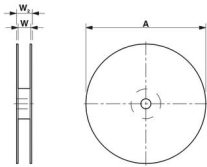
### Shocks

|                 |                                   |
|-----------------|-----------------------------------|
| Specification   | IEC 60068-2-27:2008-02            |
| Pulse shape     | Semi-sinusoidal                   |
| Acceleration    | 490 m/s <sup>2</sup>              |
| Shock duration  | 11 ms                             |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

### Ambient conditions

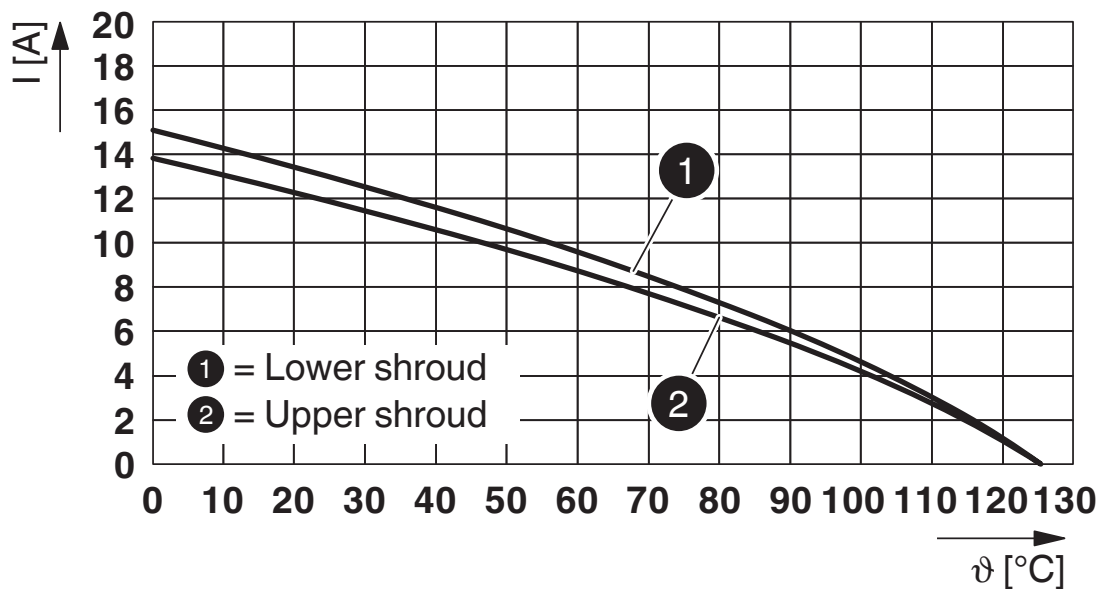
|                                         |                   |
|-----------------------------------------|-------------------|
| Ambient temperature (operation)         | -55 °C ... 125 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Relative humidity (storage/transport)   | 30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

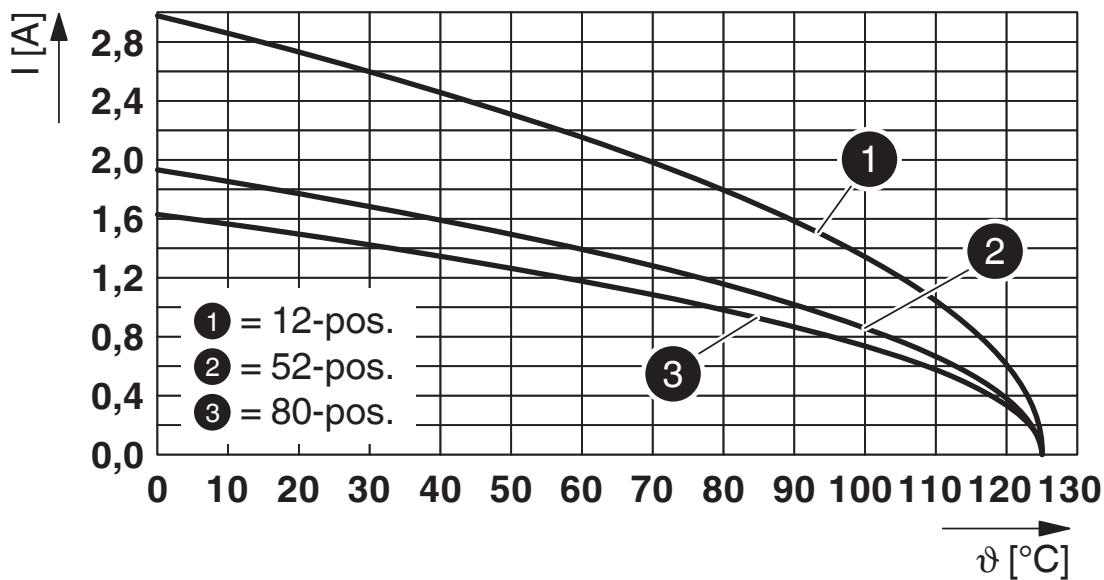
## Drawings

Diagram



Type: FP 0,8/...-MH-SH with FP 0,8/...-FH-SH

Diagram



Type: FP 0,8/...-MH-SH with FP 0,8/...-FH-SH

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1043794>



**cULus Recognized**

Approval ID: E118976-20190703



**EAC**

Approval ID: B.00511/19

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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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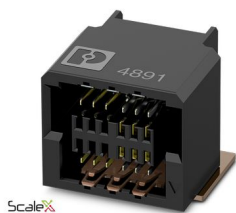
<https://www.phoenixcontact.com/us/products/1043794>

## Mandatory accessories

### FP 0,8/ 80-FH-SH - SMD female connector shielded

1043725

<https://www.phoenixcontact.com/us/products/1043725>



Shielded SMD female connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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### FP 0,8/ 80-FV-SH 10,85 - SMD female connectors

1154035

<https://www.phoenixcontact.com/us/products/1154035>



Shielded SMD female connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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## FP 0,8/ 80-FV-SH 4,85 - SMD female connector shielded

1043714

<https://www.phoenixcontact.com/us/products/1043714>



Shielded SMD female connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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## FP 0,8/ 80-FV-SH 7,85 - SMD female connector shielded

1043685

<https://www.phoenixcontact.com/us/products/1043685>



Shielded SMD female connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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## Accessories

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## FP 0,8/ 80-FV-SH 4,85 - SMD female connector shielded

1043714

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Shielded SMD female connector, nominal current: 1.7 A, Test voltage: 500 V AC, number of positions: 80, pitch: 0.8 mm, color: black, contact surface: Gold, contact connection type: Socket, mounting: SMD soldering

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