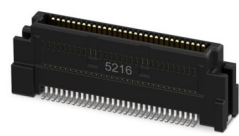


1332196  
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SMD male connector, nominal current: 0.5 A, Test voltage: 500 V AC, number of positions: 40, pitch: 0.635 mm, color: black, contact surface: Au, contact connection type: Pin, mounting: SMD soldering



Your advantages

- Design-in support during device development using MCAD/ECAD data and a free sample service
- Cost and space savings with the comprehensive portfolio available in various stack heights
- Easy mating with integrated keyways and tolerance compensation for error-free production
- Time savings during the development process with customer-specific simulations for data integrity
- High-speed data transmission up to 30 Gbps for various possible applications

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1332196       |
| Packing unit                         | 540 pc        |
| Minimum order quantity               | 540 pc        |
| Sales key                            | AA23          |
| Product key                          | AAWGCC        |
| GTIN                                 | 4063151629830 |
| Weight per piece (including packing) | 1.736 g       |
| Weight per piece (excluding packing) | 1.736 g       |
| Customs tariff number                | 85366930      |
| Country of origin                    | CN            |

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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## Technical data

### Product properties

|                     |                        |
|---------------------|------------------------|
| Product type        | SMD male connector     |
| Product family      | FS 0,635/...-MV-R- 9,0 |
| Number of positions | 40                     |
| Pitch               | 0.635 mm               |
| Number of rows      | 2                      |
| Pin layout          | Linear pad geometry    |

### Data management status

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

### Electrical properties

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| Nominal current $I_N$     | 0.5 A IEC 60512-5-2:2002-02 (40-pos. / 60-pos.) |
| Contact resistance        | 70 mΩ                                           |
| Test voltage              | 500 V AC IEC 60512-4-1:2003                     |
| Rated voltage (I/I)       | 125 V                                           |
| Rated surge voltage (I/I) | 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           |
| Solder cycles in the reflow      | 3                |

### 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 | IIIa         |

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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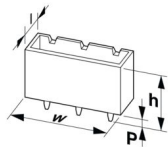
<https://www.phoenixcontact.com/us/products/1332196>

|                                        |     |
|----------------------------------------|-----|
| 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               | 0.635 mm                                                                           |
| Width [w]           | 19.57 mm                                                                           |
| Height [h]          | 9.6 mm                                                                             |
| Length [l]          | 5.2 mm                                                                             |
| Installed height    | 9 mm                                                                               |

## Application

|                   |                                                                                                                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact cover     | 0.6 mm                                                                                                                                                                             |
| Center offset     | ± 0.5 mm in longitudinal and transverse direction                                                                                                                                  |
| Stack height      | 10 mm Tolerance: +0.6 mm (in combination with Range of articles:FS 0,635/...-FV-R- 4,0)<br>16 mm Tolerance: +0.6 mm (in combination with Range of articles:FS 0,635/...-FV-R-10,0) |
| Wipe length       | 0.6 mm                                                                                                                                                                             |
| Angular tolerance | ± 10 ° in longitudinal and transverse direction (when plugging in)<br>± 2 ° in longitudinal and transverse direction (when plugged in)                                             |

## PCB design

|               |               |
|---------------|---------------|
| Pad geometry  | 0.35 x 1.8 mm |
| Hole diameter | 0.9 mm        |

## Electrical tests

### Thermal test | Test group C

|                            |                       |
|----------------------------|-----------------------|
| Specification              | IEC 60512-5-2:2002-02 |
| Tested number of positions | 60                    |

### Insulation resistance

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | ≥ 5 GΩ                |

### Air clearances and creepage distances |

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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|                                                   |                     |
|---------------------------------------------------|---------------------|
| Specification                                     | IEC 60664-1:2007-04 |
| Insulating material group                         | IIIa                |
| Minimum value for clearance and creepage distance | 0.19 mm             |

## Environmental and real-life conditions

### Vibration test

|                        |                       |
|------------------------|-----------------------|
| Specification          | IEC 60068-2-6:2007-12 |
| Frequency              | 10 - 55 - 10 Hz       |
| Sweep speed            | 1 octave/min          |
| Amplitude              | 1.52 mm               |
| Acceleration           | 181 m/s <sup>2</sup>  |
| Test duration per axis | 2 h                   |
| Test directions        | X-, Y- and Z-axis     |

### Durability test

|                                              |                                   |
|----------------------------------------------|-----------------------------------|
| Specification                                | IEC 60512-9-1:2010-03 (following) |
| Contact resistance R <sub>1</sub>            | 70 mΩ                             |
| Contact resistance R <sub>2</sub>            | 70 mΩ                             |
| Insertion/withdrawal cycles                  | 50                                |
| Insulation resistance, neighboring positions | ≥ 5 GΩ                            |

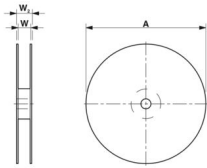
### Climatic test

|                                   |                        |
|-----------------------------------|------------------------|
| Specification                     | IEC 60068-2-60:2015-06 |
| Corrosive stress                  | Method 4, 10 days      |
| Thermal stress                    | 125 °C/168 h           |
| Power-frequency withstand voltage | 500 V                  |

### 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                                                                      |

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



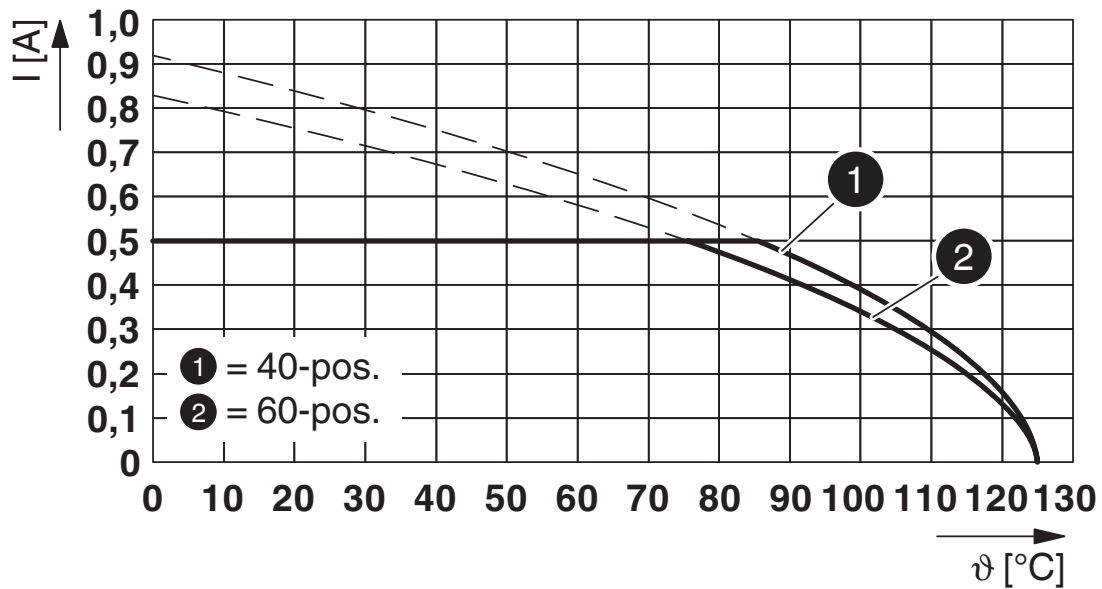
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|               |                                          |
|---------------|------------------------------------------|
| ESD level     | (D) electrostatically conductive         |
| Specification | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

## Drawings

Diagram



Type: FS 0,635/...-MV-R- 9,0 with FS 0,635/...-FV-R-10,0

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1332196>

|                                                                                   |                               |                       |                   |                             |
|-----------------------------------------------------------------------------------|-------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>cULus Recognized</b>       |                       |                   |                             |
|                                                                                   | Approval ID: E118976-20230512 |                       |                   |                             |
|                                                                                   | Nominal voltage $U_N$         | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                   | 29.9 V                        | 0.5 A                 | -                 | -                           |

# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002637 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|



# FS 0,635/ 40-MV-R- 9,0 - SMD male connectors



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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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