

# Flush-type connector - SACC-SQ-M12MS-5CON-20-L180 - 1456433

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Sensor/actuator flush-type plug, 5-pos. socket, M12, A-coded, front/square flange mounting, wave soldering

## Your advantages

- ✓ M12 PCB connector that can be soldered directly with integrated torsion protection and shield connection
- ✓ Easy PCB assembly: one-piece connectors for wave soldering
- ✓ Standard pin assignments for signal and power transmission with a uniform design-in design
- ✓ SPEEDCON fast locking system reduces cabling times



## Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| Minimum order quantity               | 10 pc   |
| GTIN                                 | <br>4 046356 617048 |
| GTIN                                 | 4046356617048   |
| Weight per Piece (excluding packing) | 12.000 g  |
| Custom tariff number                 | 85366990  |
| Country of origin                    | Germany   |

## Technical data

### Ambient conditions

|                                 |   |
|---------------------------------|---|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)                |
|                                 | -40 °C ... 85 °C (without mechanical actuation) |
|                                 | -25 °C ... 85 °C (Plug / socket)                |
| Degree of protection            | IP20  |

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## Technical data

### General

|                             |  |
|-----------------------------|--|
| Note                        | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration. |
| Rated current at 40°C       | 4 A  |
| Rated voltage               | 60 V   |
| Rated surge voltage         | 1.5 kV   |
| Number of positions         | 5  |
| Insulation resistance       | ≥ 100 MΩ   |
| Coding                      | A - standard   |
| Standards/regulations       | M12 connector IEC 61076-2-101  |
| Signal type/category        | Universal  |
| Status display              | No   |
| Overvoltage category        | III  |
| Degree of pollution         | 3  |
| Connection method           | Solder pins  |
| Insertion/withdrawal cycles | > 100  |
| Torque                      | 3 Nm ... 4 Nm (Installation-side)  |
| Mounting type               | Front mounting Square flange 20 mm side length   |
| Thread type                 | Square flange  |

### Material

|  |                              |
|--|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA 6.6                       |
| Material, knurls                       | Zinc die-cast, nickel-plated |
| Sealing material                       | FKM                          |

### Cable

|                                    |                               |
|------------------------------------|-------------------------------|
| Conductor cross section            | 0.34 mm <sup>2</sup>          |
| Conductor structure signal line    | 7x 0.25 mm                    |
| Core diameter including insulation | 1.2 mm ±0.07 mm               |
| Thickness, insulation              | 0.21 mm                       |
| Standards/specifications           | M12 connector IEC 61076-2-101 |
| Insulation resistance              | ≥ 20 MΩ*km                    |
| Conductor resistance               | ≤ 57.6 mΩ/m                   |
| Nominal voltage, cable             | 300 V                         |
| Test voltage, cable                | 2000 V AC                     |

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## Technical data

### Cable

|                                 |   |
|---------------------------------|---|
| Ambient temperature (operation) | -40 °C ... 85 °C (cable, fixed installation)    |
|                                 | -25 °C ... 85 °C (cable, flexible installation) |

### Standards and Regulations

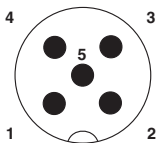
|  |                               |
|--|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0                            |

### Environmental Product Compliance

|            |   |
|------------|---|
| REACH SVHC | Lead 7439-92-1  |
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

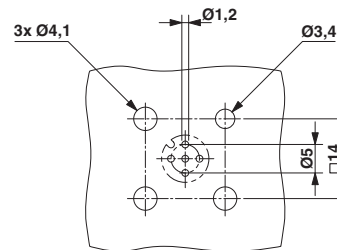
## Drawings

Schematic diagram

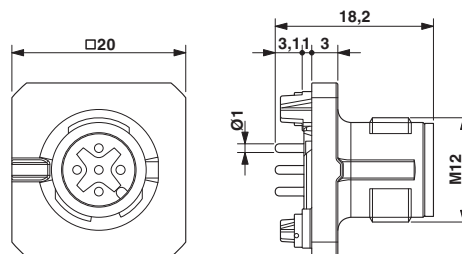


Pin assignment M12 male connector, 5-pos., A-coded, male side

Drilling diagram



Dimensional drawing



M12 flush-type plug, square flange

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 11.0   | 27440102 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140800 |
| eCl@ss 4.1 | 27140800 |
| eCl@ss 5.0 | 27143400 |
| eCl@ss 5.1 | 27143400 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27440103 |
| eCl@ss 9.0 | 27440102 |

### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | EC002061 |
| ETIM 6.0 | EC002061 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 39121413 |
| UNSPSC 18.0   | 39121413 |
| UNSPSC 19.0   | 39121413 |
| UNSPSC 20.0   | 39121413 |
| UNSPSC 21.0   | 39121413 |

## Approvals

### Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

### Approval details

|     |  |         |
|-----|--|---------|
| EAC |  | B.01687 |
|-----|--|---------|

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## Approvals

|                            |       |   |                  |
|----------------------------|-------|---|------------------|
| cULus Recognized           |       | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E221474-20140616 |
| Nominal voltage UN         | 60 V  |   |                  |
| Nominal current IN         | 4 A   |   |                  |
| mm <sup>2</sup> /AWG/kcmil | 22-20 |   |                  |

## Accessories

### Accessories

#### Protective cap

Sealing cap - PROT-M12 FS - 1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

Sealing cap - PROT-M12 FS-M - 1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field