

## Flush-type connector - SACC-SQ-M12FS-4CON-20-L180 - 1456420

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Sensor/actuator flush-type connector, 4-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 | 10 pc                                                                                                   |
| GTIN         | <br>4 046356 617031 |
| GTIN         | 4046356617031                                                                                           |

### Technical data

#### Ambient conditions

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

#### 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         | 250 V                                                                                                                                                                                                                                                                                                                                              |
| Rated surge voltage   | 2.5 kV                                                                                                                                                                                                                                                                                                                                             |
| Number of positions   | 4                                                                                                                                                                                                                                                                                                                                                  |

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## Technical data

### General

|                             |                                                |
|-----------------------------|------------------------------------------------|
| Insulation resistance       | ≥ 100 MΩ                                       |
| Coding                      | A - standard                                   |
| Standards/regulations       | M12 connector IEC 61076-2-101                  |
| Signal type/category        | Universal                                      |
| Status display              | No                                             |
| Overvoltage category        | II                                             |
| 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 |

### 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 mm²                                        |
| 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                                       |
| Ambient temperature (operation)    | -40 °C ... 85 °C (cable, fixed installation)    |
|                                    | -25 °C ... 85 °C (cable, flexible installation) |

### Standards and Regulations

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

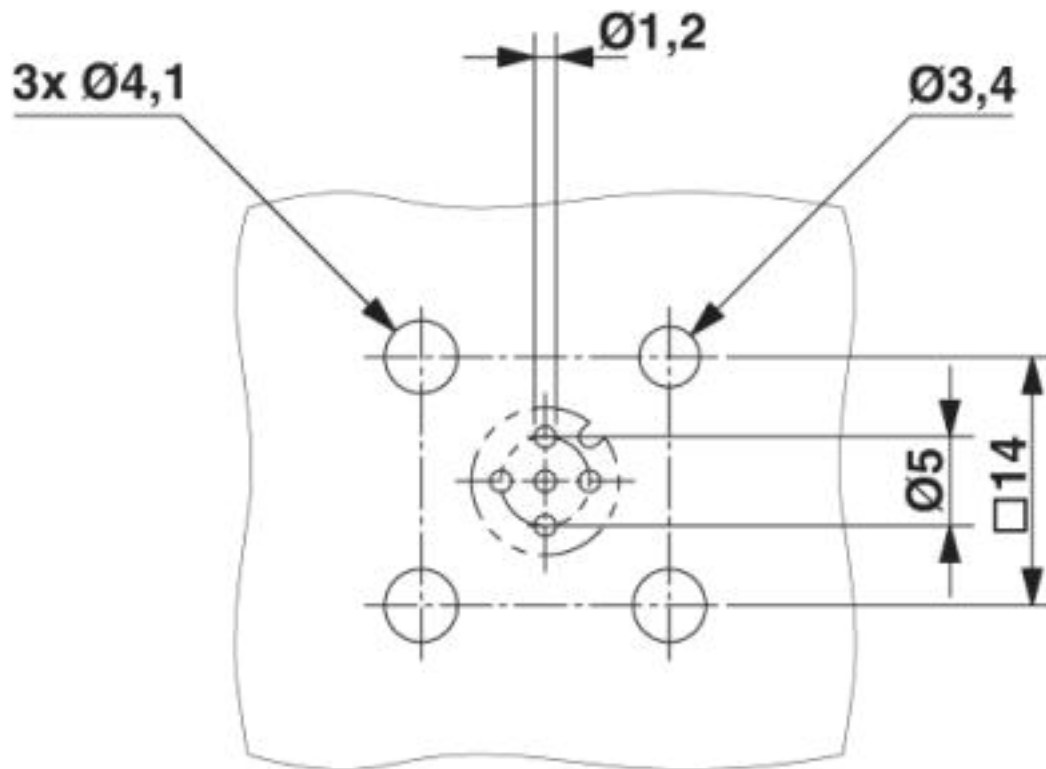
### Environmental Product Compliance

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

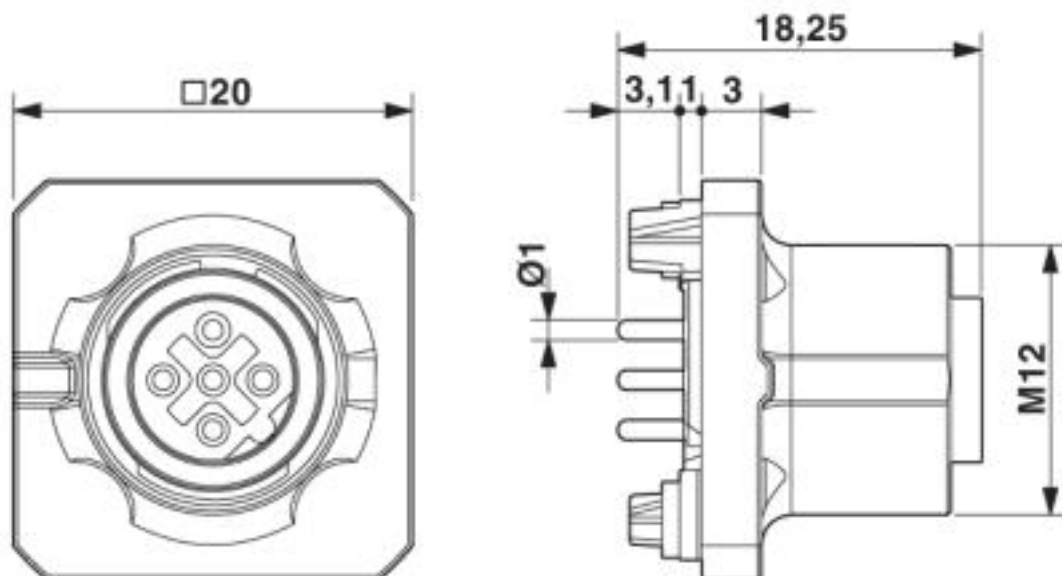
## Flush-type connector - SACC-SQ-M12FS-4CON-20-L180 - 1456420

### Drawings

Drilling diagram



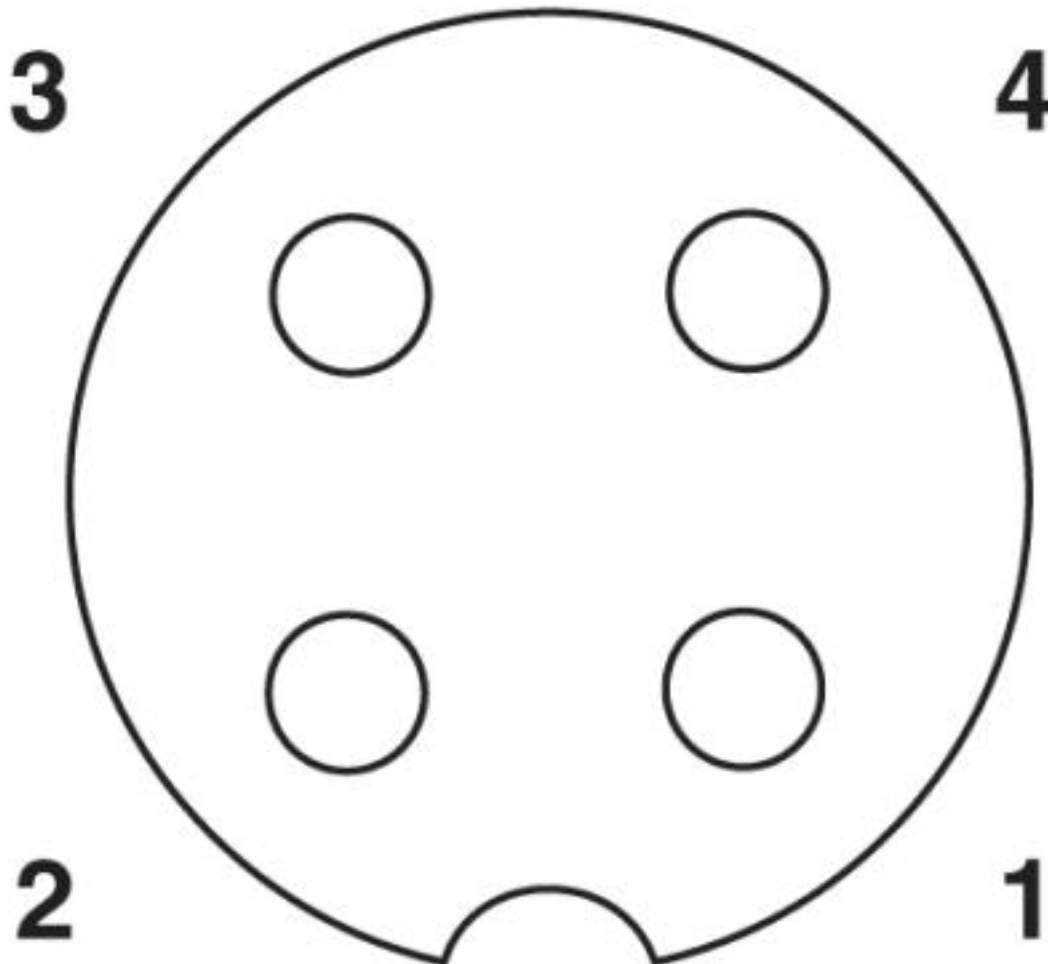
Dimensional drawing



M12 flush-type socket, square flange

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Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

### Approvals

Approvals

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Approvals

UL Recognized / EAC / cULus Recognized

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Ex Approvals

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Approval details

## Flush-type connector - SACC-SQ-M12FS-4CON-20-L180 - 1456420

### Approvals

|                    |                                                                                   |                                                                                                                                                       |               |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL 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> | FILE E 118976 |
|                    |                                                                                   |                                                                                                                                                       |               |
| Nominal voltage UN | 250 V                                                                             |                                                                                                                                                       |               |
| Nominal current IN | 4 A                                                                               |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 22                                                                                |                                                                                                                                                       |               |

|     |                                                                                   |         |
|-----|-----------------------------------------------------------------------------------|---------|
| EAC |  | B.01742 |
|-----|-----------------------------------------------------------------------------------|---------|

|                    |  |                                                                                   |                                                                                                                                                       |                  |       |
|--------------------|--|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------|
| 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 |  |                                                                                   |                                                                                                                                                       |                  | 250 V |
| Nominal current IN |  |                                                                                   |                                                                                                                                                       |                  | 4 A   |
| mm²/AWG/kcmil      |  |                                                                                   |                                                                                                                                                       |                  | 22-20 |

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