

## Flush-type connector - SACC-E-M12FS-4CON-PG 9/0,5 VA - 1555448

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Sensor/actuator flush-type socket, 4-pos., M12, A-coded, front/screw mounting with Pg9 thread, with 0.5 m TPE litz wire, 4 x 0.34 mm<sup>2</sup>, stainless steel version

### Your advantages

- ✓ Pre-assembled with litz wires for immediate use
- ✓ Customer-specific assemblies and litz wire lengths available
- ✓ Sealed on the litz wire side for optimum leak-tightness
- ✓ For high transmission safety: shield connection to the housing with optional EMC nut

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 170253 |
| GTIN         | 4046356170253                                                                                           |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.5 m |
|-----------------|-------|

#### Ambient conditions

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)                |
|                                 | -40 °C ... 85 °C (without mechanical actuation) |
| Degree of protection            | IP65/IP67/IP69/IP69K                            |
|                                 | IP69K                                           |

#### 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                                                                                                                                                                                                                                                                                                                                                |

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## Technical data

### General

|                             |                                   |
|-----------------------------|-----------------------------------|
| Rated voltage               | 250 V                             |
| Rated surge voltage         | 2.5 kV                            |
| Number of positions         | 4                                 |
| Insulation resistance       | > 100 MΩ                          |
| Coding                      | A - standard                      |
| Standards/regulations       | M12 connector IEC 61076-2-101     |
| Status display              | No                                |
| Overvoltage category        | II                                |
| Degree of pollution         | 3                                 |
| Connection method           | Individual wires                  |
| Insertion/withdrawal cycles | > 100                             |
| Torque                      | 3 Nm ... 4 Nm (Installation-side) |
| Mounting type               | Front mounting Pg9                |

### Material

|                                        |                 |
|----------------------------------------|-----------------|
| Flammability rating according to UL 94 | V0              |
| Contact material                       | CuZn            |
| Contact surface material               | Au              |
| Contact carrier material               | PA66 GF         |
| Material, knurls                       | Stainless steel |
| Sealing material                       | FKM             |

### Cable

|                                    |                                                 |
|------------------------------------|-------------------------------------------------|
| Cable type                         | TPE litz wire                                   |
| Conductor cross section            | 0.34 mm <sup>2</sup>                            |
| AWG signal line                    | 22                                              |
| Conductor structure signal line    | 7x 0.25 mm                                      |
| Core diameter including insulation | 1.2 mm ±0.07 mm                                 |
| Thickness, insulation              | 0.21 mm                                         |
| Wire colors                        | brown, white, blue, black                       |
| Material conductor insulation      | TPE                                             |
| Conductor material                 | Tin-plated Cu litz wires                        |
| Standards/specifications           | M12 connector IEC 61076-2-101                   |
| Insulation resistance              | ≥ 20 MΩ*km                                      |
| Conductor resistance               | ≤ 57.6 Ω/km                                     |
| 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

|                          |                               |
|--------------------------|-------------------------------|
| Standards/specifications | M12 connector IEC 61076-2-101 |
|--------------------------|-------------------------------|

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## Technical data

### Standards and Regulations

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability rating according to UL 94 | V0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Safety note                            | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.                                                                                                                                                                                                                                                                                                                                   |
|                                        | <ul style="list-style-type: none"> <li>• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>                                                                                                                                                                                                                    |
|                                        | <ul style="list-style-type: none"> <li>• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li> </ul> |
|                                        | <ul style="list-style-type: none"> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>                                                                                                                                                                                                                                                                                                                              |
|                                        | <ul style="list-style-type: none"> <li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>                                                                                                                                                                                                                                                                                                       |
|                                        | <ul style="list-style-type: none"> <li>• Assembled products may not be manipulated or improperly opened.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                  |
|                                        | <ul style="list-style-type: none"> <li>• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li> </ul>                                                                                                                                                                                       |
|                                        | <ul style="list-style-type: none"> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>                                                                                                                                                                                                                                                                                                                             |
|                                        | <ul style="list-style-type: none"> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>                                                                                                                                                                                                                                                                                                                                              |
|                                        | <ul style="list-style-type: none"> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>                                                                                                                                                                                                                                                                                                |
|                                        | <ul style="list-style-type: none"> <li>• Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> <li>o On the product</li> <li>o On the packing label</li> <li>o In the supplied documentation</li> <li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li> </ul> </li> </ul>                                                                                       |
|                                        | <ul style="list-style-type: none"> <li>• Only use tools recommended by Phoenix Contact</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | <ul style="list-style-type: none"> <li>• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li> </ul>                                                                                                                                                                                       |
|                                        | <ul style="list-style-type: none"> <li>• Ensure that the protective or functional ground has been properly connected.</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
|                                        | <ul style="list-style-type: none"> <li>• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>                                                                                                                                                                                                                                                                                            |
|                                        | <ul style="list-style-type: none"> <li>• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>                                                                                                                                                                                             |

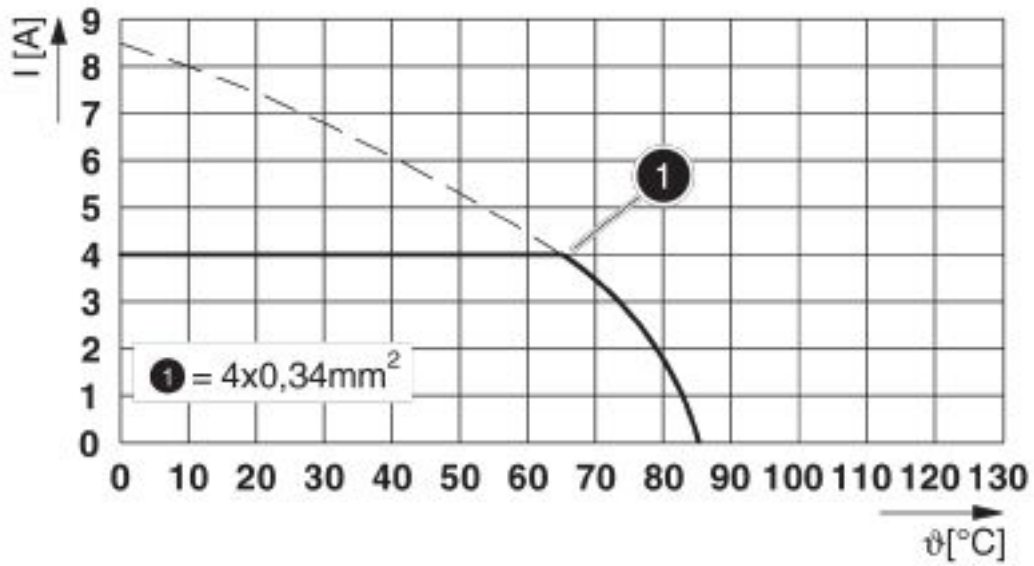
### Environmental Product Compliance

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

## Drawings

## Flush-type connector - SACC-E-M12FS-4CON-PG 9/0,5 VA - 1555448

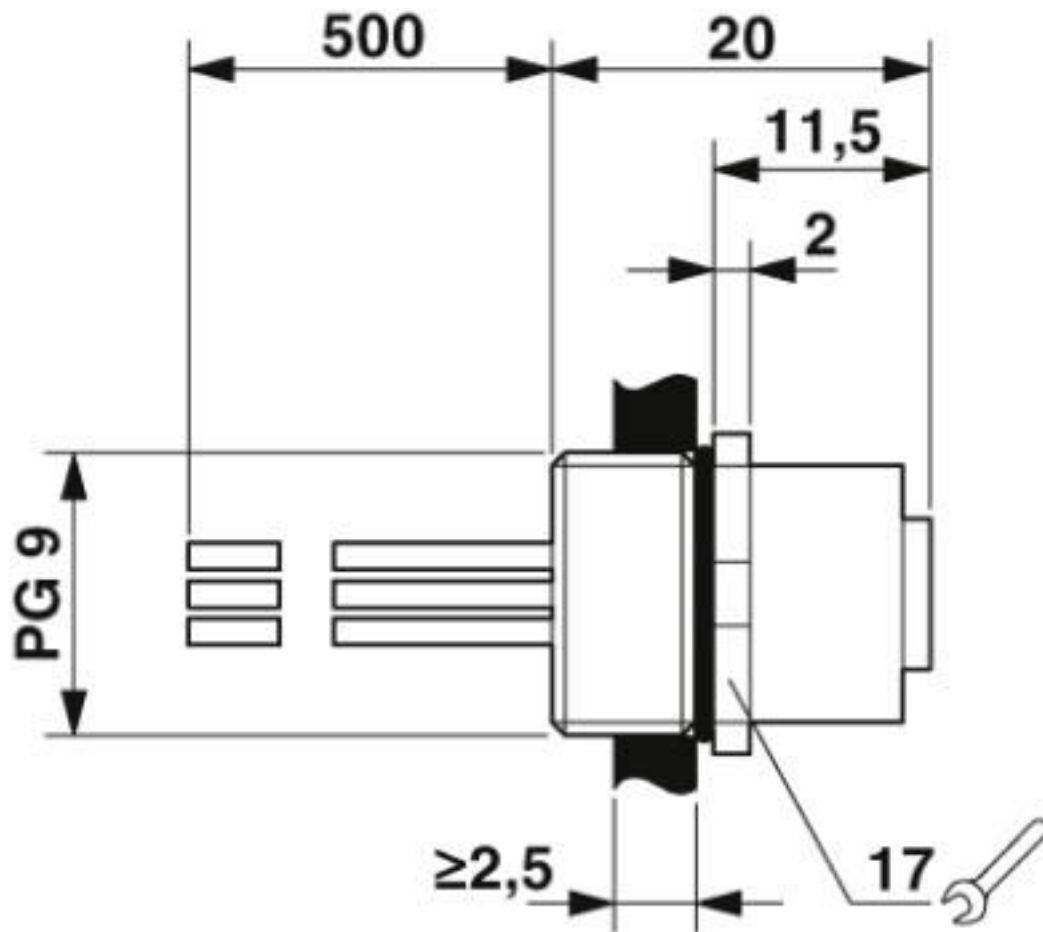
Diagram



$I$  = current strength,  $T$  = ambient temperature

## Flush-type connector - SACC-E-M12FS-4CON-PG 9/0,5 VA - 1555448

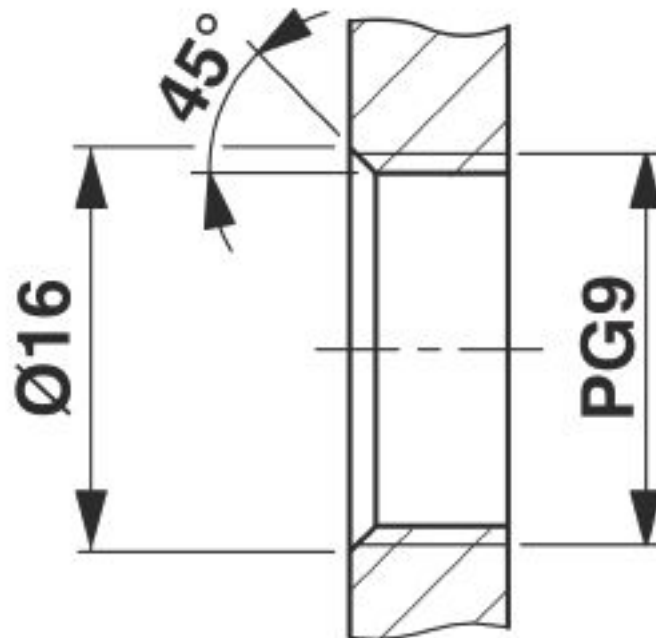
Dimensional drawing



M12 flush-type socket

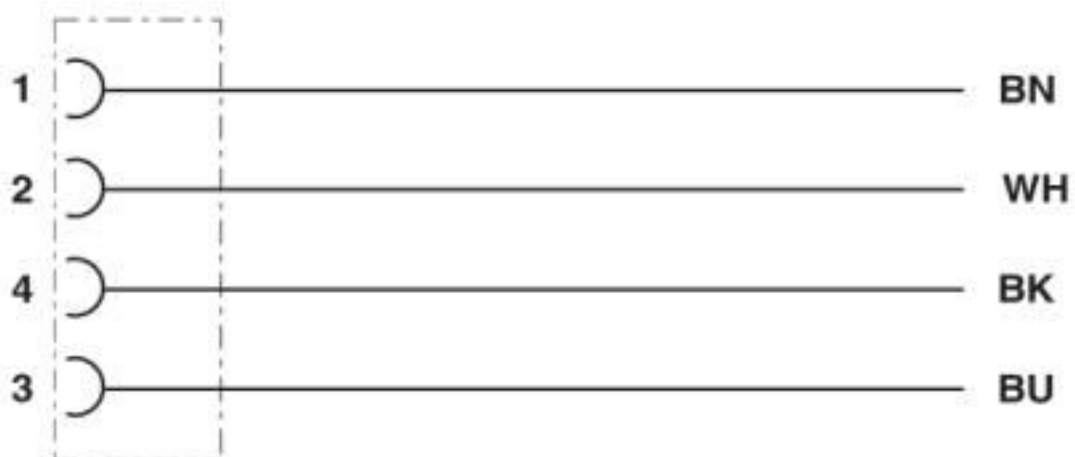
## Flush-type connector - SACC-E-M12FS-4CON-PG 9/0,5 VA - 1555448

Dimensional drawing



Housing cutout for Pg9 fastening thread, mounting panel with thread

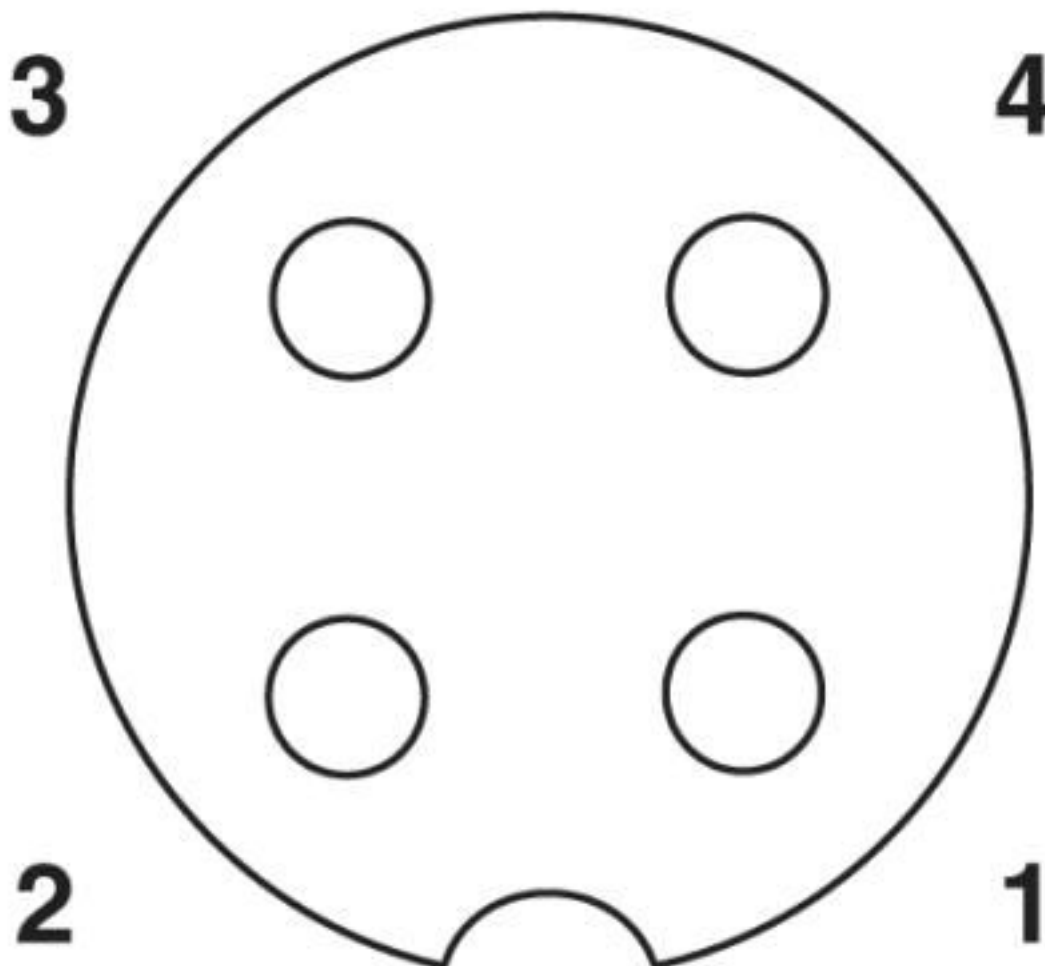
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Schematic diagram



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

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| 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 8.0    | 27440103 |
| eCl@ss 9.0    | 27440102 |

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### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC002062 |
| ETIM 5.0 | 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

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UL Recognized / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

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

### Accessories

#### Accessories

##### Circular connectors (device side)

Flat nut - SACC-PG9-NUT-VA - 1404984



Flat nut with Pg9 thread

##### Plug for cable screw gland

Screw plug - PROT-M12 - 1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

Screw plug - PROT-M12 SH - 1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

Screw plug - PROT-M12 FB - 1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

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### Accessories

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#### Seal

Flat gasket - SACC-PG9-SEAL CLM - 1556320



Pg9 flat gasket for the rear mounting of M12 flush-type connectors with Pg9 fastening threads

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