

## Flush-type connector - SACC-SQ-M12FS-4CON-25F/0,5 - 1420003

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Sensor/Actuator flush-type socket, 4-pos., M12, A-coded, front/square flange mounting, with 0.5 m TPE litz wire, 4 x 0.34 mm<sup>2</sup>

### Your advantages

- ✓ 4 x fixing hole, 2.7 mm
- ✓ With form seal for M2.5 screws
- ✓ 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
- ✓ All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- ✓ For high transmission safety: shield connection to the housing with optional EMC nut
- ✓ SPEEDCON fast locking system reduces cabling times



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 533829
GTIN	4046356533829
Weight per Piece (excluding packing)	20.000 g
Custom tariff number	85444290
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	0.5 m
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#### Ambient conditions

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## Technical data

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)
Degree of protection	IP67

### 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
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 Square flange

### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material of grip body	Zinc die-cast, nickel-plated
Material, knurls	Zinc die-cast, nickel-plated
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 (Core insulation)

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## Technical data

### Cable

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 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
CE 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> </ul> </li> </ul>

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### Technical data

#### Standards and Regulations

	<ul style="list-style-type: none"> <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>
	<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>

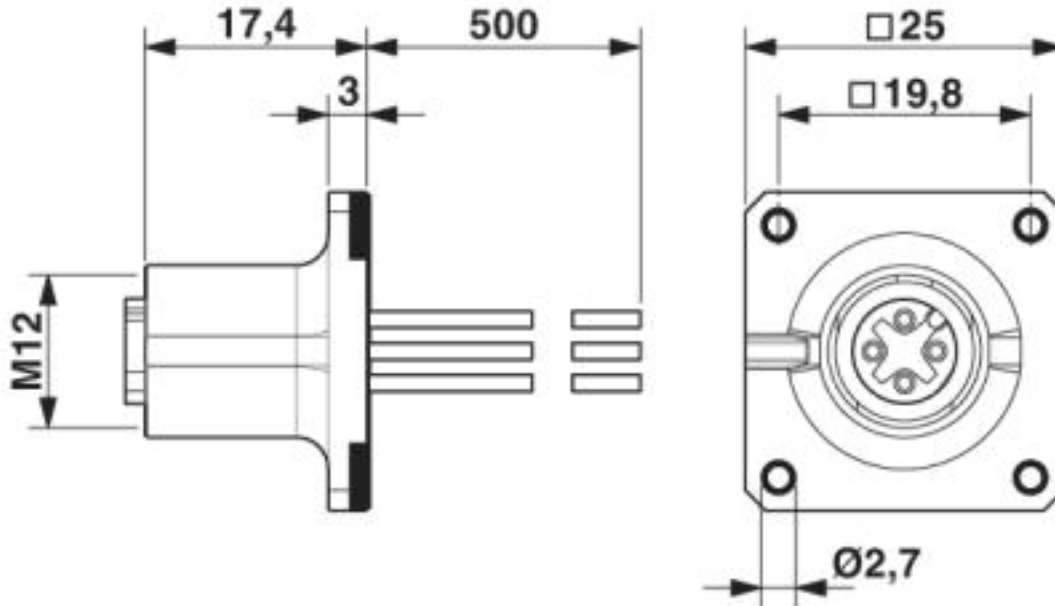
#### Environmental Product Compliance

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

### Drawings

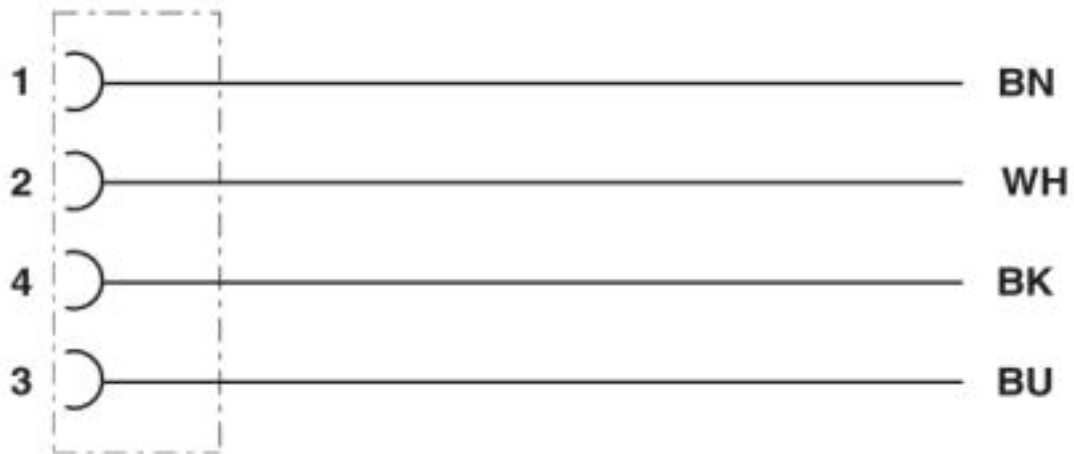
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Dimensional drawing



M12 flush-type plug

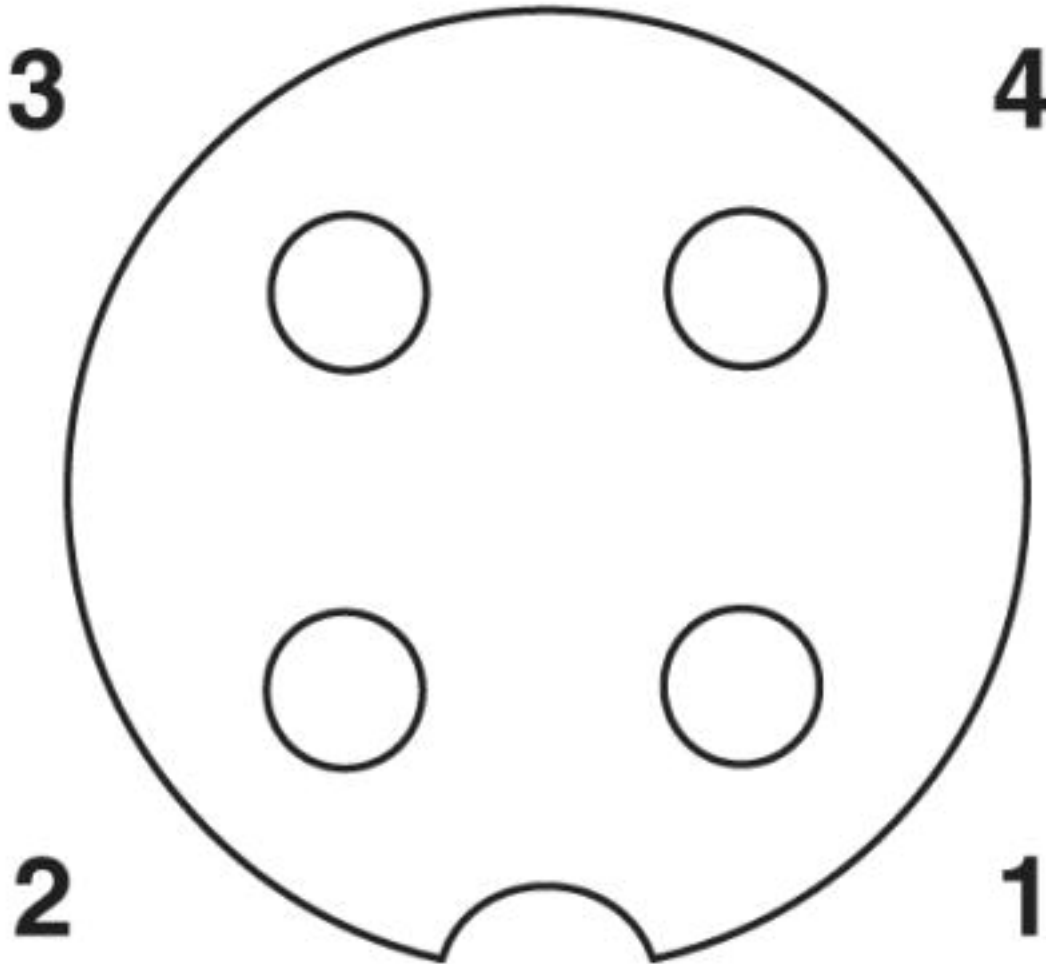
Circuit diagram



Contact assignment of 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

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## Classifications

### eCl@ss

eCl@ss 8.0	27440103
eCl@ss 9.0	27440102

### ETIM

ETIM 2.0	EC001297
ETIM 3.0	EC002061
ETIM 4.0	EC002061
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

## Accessories

### Accessories

#### Protective cap

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

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### Accessories

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