

Flush-type connector - SACC-SQ-M12MS-5CON-20/0,5 - 1441642

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Sensor/Actuator flush-type plug, 5-pos., M12, A-coded, front/square flange mounting, with 0.5 m TPE litz wire, 5 x 0.34 mm²

Your advantages

- 4 x fixing hole, 3.2 mm
- With form seal for M3 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



SPEEDCON

Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 532983 |
| GTIN | 4046356532983 |

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 | 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 |
| | 09/09/2020 Page 1 / 8 |

Flush-type connector - SACC-SQ-M12MS-5CON-20/0,5 - 1441642

Technical data

General

| | |
|-----------------------------|--|
| | 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 | 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 20 mm side length |

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 ² |
| 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, gray |
| 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 |

Flush-type connector - SACC-SQ-M12MS-5CON-20/0,5 - 1441642

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 |
| Safety note | <p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <ul style="list-style-type: none">• 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. |
| | <ul style="list-style-type: none">• 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. |
| | <ul style="list-style-type: none">• The products are suitable for applications in plant, controller, and electrical device engineering. |
| | <ul style="list-style-type: none">• When operating the connectors in outdoor applications, they must be separately protected against environmental influences. |
| | <ul style="list-style-type: none">• Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none">• 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 phoenixcontact.com/products). |
| | <ul style="list-style-type: none">• When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none">• For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none">• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards. |
| | <ul style="list-style-type: none">• Observe the corresponding technical data. You will find information:<ul style="list-style-type: none">o On the producto On the packing labelo In the supplied documentationo Online at phoenixcontact.com/products under the product• Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none">• 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 phoenixcontact.com/products |
| | <ul style="list-style-type: none">• Ensure that the protective or functional ground has been properly connected. |
| | <ul style="list-style-type: none">• 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 |
| | <ul style="list-style-type: none">• 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). |

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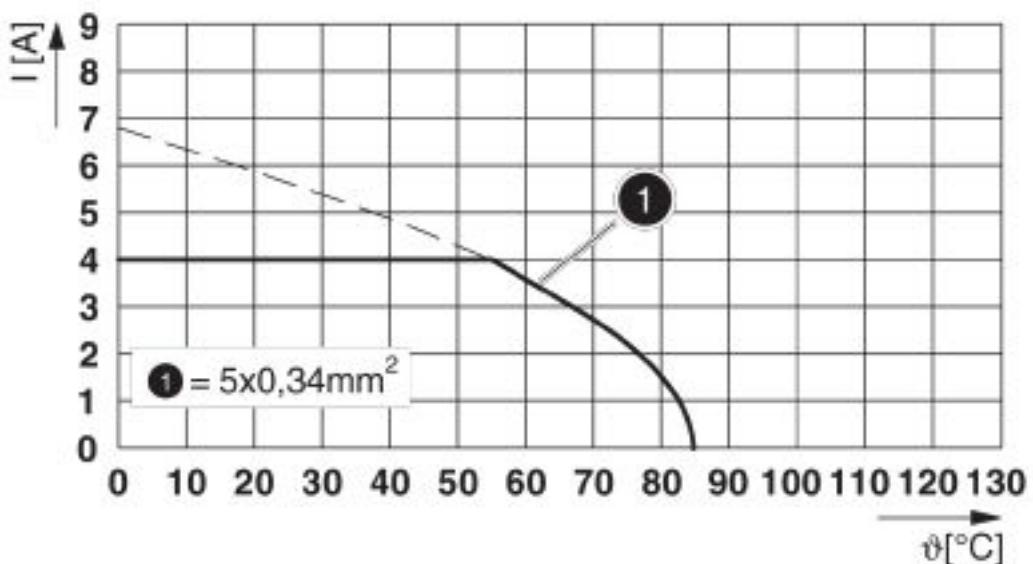
Technical data

Environmental Product Compliance

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

Drawings

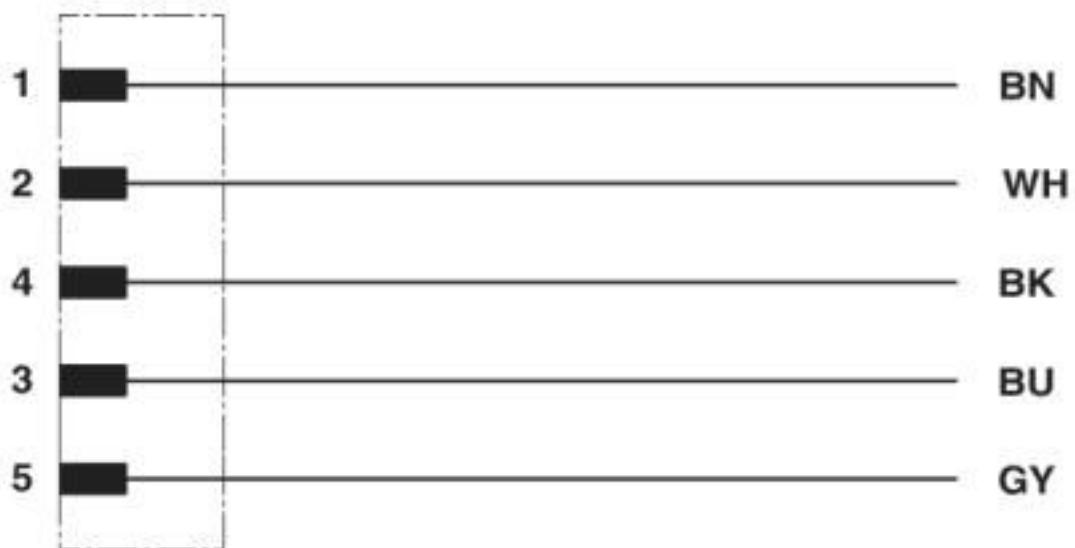
Diagram



I = current strength, T = ambient temperature

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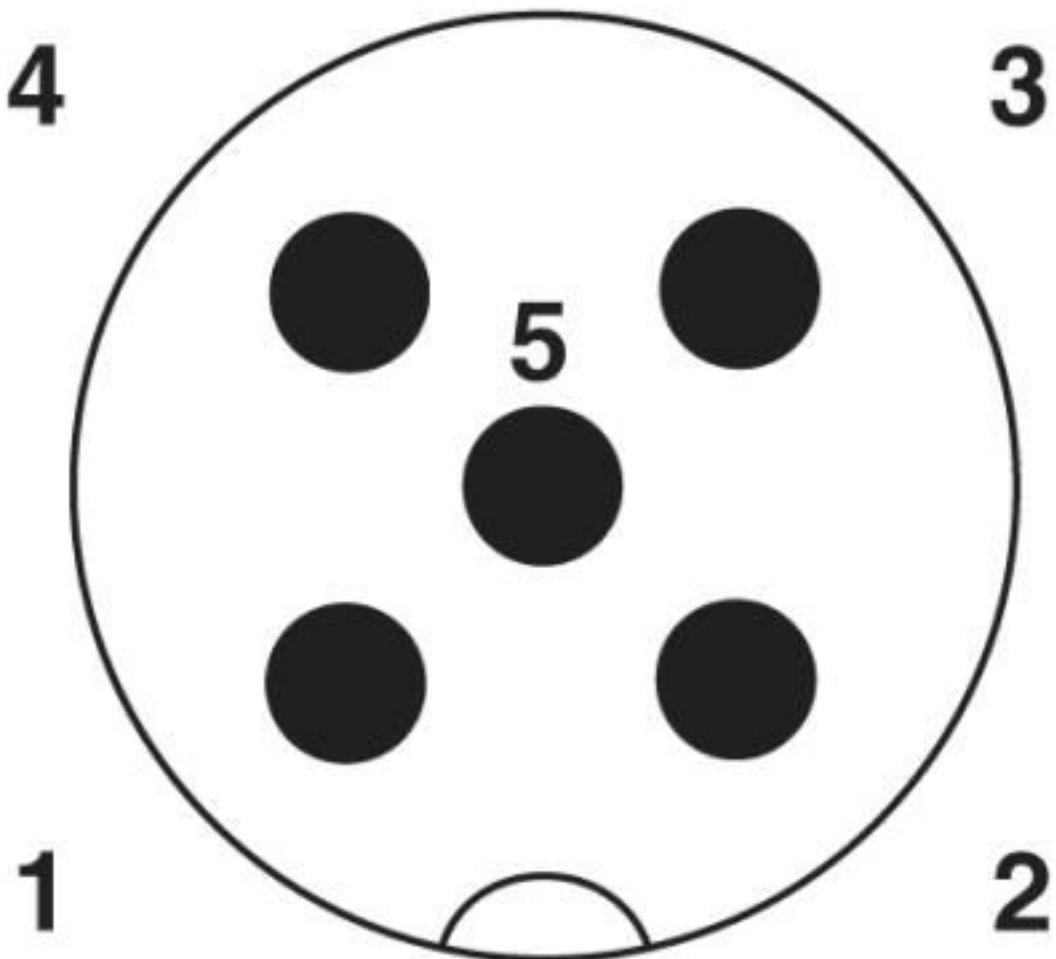
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Schematic diagram



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

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

Accessories

Accessories

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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

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>