

Flush-type connector - SACC-SQ-M12MS-4CON-25F/0,5



1419991

<https://www.phoenixcontact.com/us/products/1419991>

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Flush-type connector, 4-position, M12, Front mounting, Square flange, Individual wires, cable length: 0.5 m, 0.34 mm², TPE litz wire

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
- 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

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Commercial Data

| | |
|--------------------------------------|--------------------|
| Item number | 1419991 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | A11 |
| Product Key | ABQCDC |
| Catalog Page | Page 43 (C-2-2019) |
| GTIN | 4046356533812 |
| Weight per Piece (including packing) | 24.1 g |
| Weight per Piece (excluding packing) | 23.1 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

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Technical Data

Notes

| | |
|--------------------|---|
| Notes on operation | 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. |
| 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.• 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.• The products are suitable for applications in plant, controller, and electrical device engineering.• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.• Assembled products may not be manipulated or improperly opened.• 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).• When using the product in direct connection with third-party manufacturers, the user is responsible.• For operating voltages > 50 V AC, conductive connector housings must be grounded• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.• 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• 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• Ensure that the protective or functional ground has been properly connected. |

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| | |
|--|---|
| | <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 • 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). |
|--|---|

Product properties

| | |
|----------------------|-----------------------------------|
| Product type | Circular connectors (device side) |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A - standard |

Insulation characteristics

| | |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution | 3 |

Ambient conditions

| | |
|---------------------------------|---|
| Degree of protection | IP67 |
| Degree of protection | IP67 |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |
| | -40 °C ... 85 °C (without mechanical actuation) |
| | -25 °C ... 85 °C (Cable, flexible installation) |
| | -40 °C ... 85 °C (cable, fixed installation) |

Connector

| | |
|-----------------------------|-------|
| Insertion/withdrawal cycles | > 100 |
|-----------------------------|-------|

Header 1

| | |
|------------------|-----|
| Head thread type | M12 |
|------------------|-----|

Electrical properties

| | |
|-----------------------|----------|
| Rated surge voltage | 2.5 kV |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U_N | 250 V |
| Nominal current I_N | 4 A |

Material specifications

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

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| | |
|----------------------|------------------------------|
| Cable gland material | Zinc die-cast, nickel-plated |
|----------------------|------------------------------|

Connection data

Conductor connection

| | |
|-------------------|------------------|
| Connection method | Individual wires |
|-------------------|------------------|

Mounting

| | |
|---------------|------------------------------|
| Mounting type | Front mounting Square flange |
|---------------|------------------------------|

Standards and regulations

M12

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

Cable / line

| | |
|--------------|-------|
| Cable length | 0.5 m |
|--------------|-------|

Cable structure

| | |
|---------------------------------|---------------------------|
| Cable type | TPE litz wire |
| Conductor material | Tin-plated Cu litz wires |
| Conductor structure signal line | 7x 0.25 mm |
| AWG signal line | 22 |
| Material wire insulation | TPE |
| Thickness, insulation | 0.21 mm (Core insulation) |
| Wire diameter incl. insulation | 1.2 mm ±0.07 mm |
| Single wire, color | brown, white, blue, black |

Electrical properties

| | |
|-----------------------------|-------------|
| Nominal voltage, cable | 300 V |
| Test voltage, cable | 2000 V AC |
| Conductor resistance | ≤ 57.6 mΩ/m |
| Cable insulation resistance | ≥ 20 MΩ*km |

Ambient conditions

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

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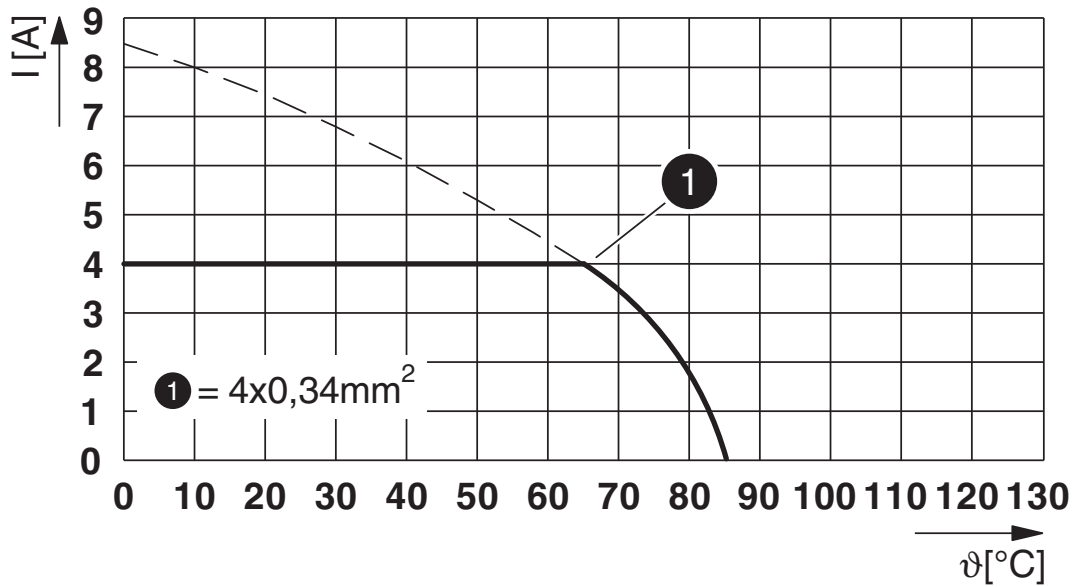


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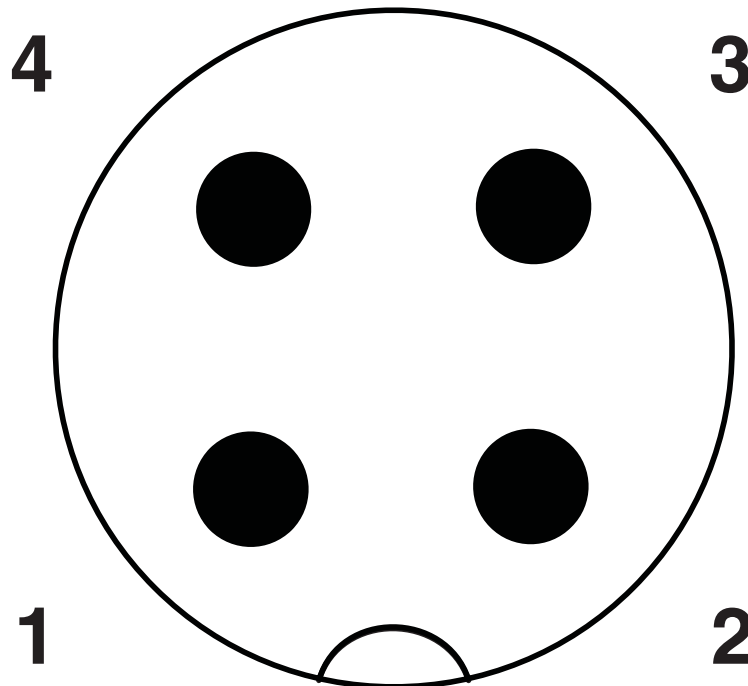
Drawings

Diagram



I = current strength, T = ambient temperature

Schematic diagram



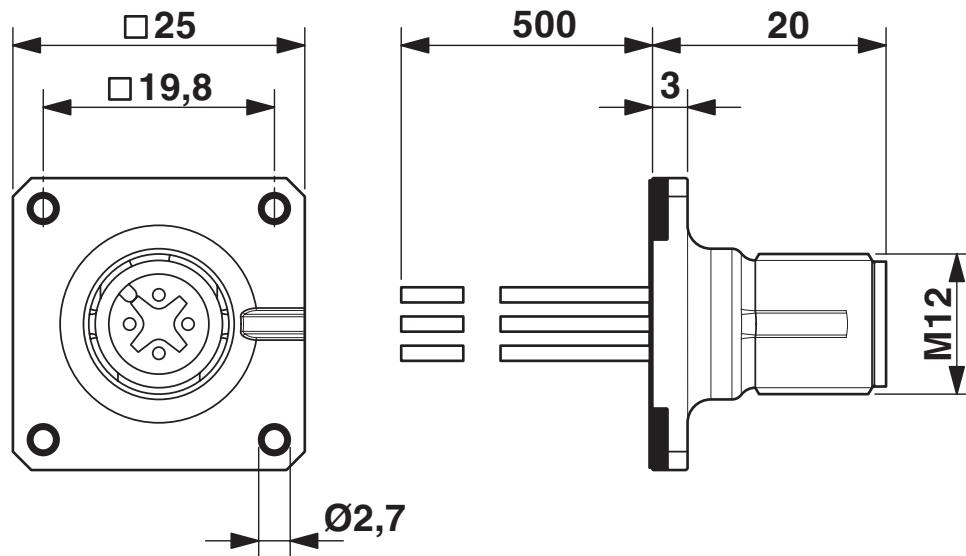
Pin assignment M12 plug, 4-pos., A-coded, view plug side

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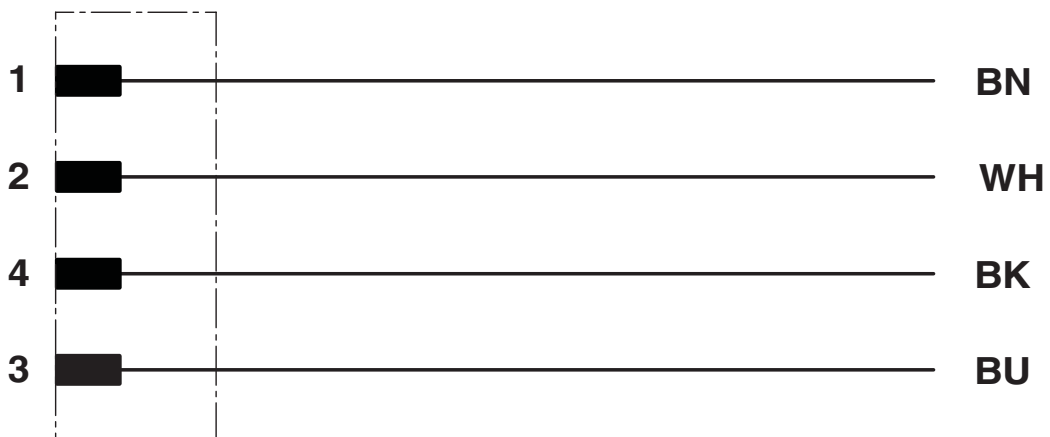
<https://www.phoenixcontact.com/us/products/1419991>

Dimensional drawing



M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug and the M12 socket


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Approvals

|  cUL Recognized Approval ID: FILE E 118976 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 250 V | 4 A | - 22 | - |

|  UL Recognized Approval ID: FILE E 118976 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 250 V | 4 A | - 22 | - |

|  EAC Approval ID: B.01687 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

|  cULus Recognized Approval ID: E221474-20140616 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| | 250 V | 4 A | 22 - 20 | - |

| cULus Recognized | | | | |
|-------------------------|--|--|--|--|
|-------------------------|--|--|--|--|

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440102 |
| ECLASS-10.0.1 | 27440102 |
| ECLASS-11.0 | 27440102 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002635 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental Product Compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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Accessories

Sealing cap

Sealing cap - PROT-M12 FS - 1560251

<https://www.phoenixcontact.com/us/products/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

Sealing cap - PROT-M12 FS-M - 1430488

<https://www.phoenixcontact.com/us/products/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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