

SACC-M12MS-5CON-PG 7-M - Connector



1663116

<https://www.phoenixcontact.com/us/products/1663116>

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Connector, Universal, 5-position, Plug straight M12, coding: A, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg7, external cable diameter 4 mm ... 6 mm

Your advantages

- Safe use in the field, thanks to a high degree of protection
- Screw connection: proven connection technology for a large selection of different conductors

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1663116 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF30 |
| Product key | AF2CAA |
| GTIN | 4017918116583 |
| Weight per piece (including packing) | 24.16 g |
| Weight per piece (excluding packing) | 23.13 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

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Technical data

Notes

Assembly note

NOTE: Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.

Mounting

Assembly note

The wires can be connected both with ferrules and without ferrules

Product properties

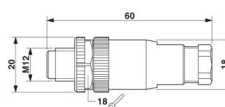
| | |
|----------------------|---------------------------------|
| Product type | Circular connector (cable-side) |
| Sensor type | Universal |
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A |
| Cable outlet | straight |
| Pg screw connection | Pg7 |

Insulation characteristics

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

Dimensions

Dimensional drawing



| | |
|--------|-------|
| Width | 20 mm |
| Height | 20 mm |
| Length | 60 mm |

External dimensions

| | |
|------------------|---------------|
| Outside diameter | 4 mm ... 6 mm |
|------------------|---------------|

Housing

| | |
|------------------|-------|
| Diameter housing | 20 mm |
|------------------|-------|

Material specifications

| | |
|--|-----|
| Flammability rating according to UL 94 | HB |
| Seal material | NBR |
| Material of grip body | PA |

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| | |
|-------------------------------|------------------------------|
| Contact material | CuZn |
| Contact surface material | CuSnZn |
| Contact carrier material | PA |
| Material for screw connection | Zinc die-cast, nickel-plated |

Connection data

Conductor connection

| | |
|---|---|
| Connection method | Screw connection |
| Connection cross section | 0.25 mm ² ... 0.75 mm ² (without ferrule) |
| | 0.14 mm ² ... 0.75 mm ² (with ferrule) |
| | 0.25 mm ² ... 0.75 mm ² (solid) |
| Connection cross section AWG | 24 ... 18 (without ferrule) |
| | 26 ... 20 (with ferrule) |
| Stripping length of the individual wire | 5 mm |
| Tightening torque | 0.4 Nm (M12 knurl) |
| | 0.2 Nm (Screw terminal blocks) |
| | 0.8 Nm ... 1 Nm (Pressure screw) |

Electrical properties

| | |
|--------------------------------|----------|
| Rated surge voltage | 1.5 kV |
| Contact resistance | ≤ 8 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 4 A |

Mechanical properties

Mechanical data

| | |
|-----------------------------|------|
| Insertion/withdrawal cycles | ≥ 50 |
|-----------------------------|------|

Connector

Connection 1

| | |
|-------------------|----------|
| Head design | Plug |
| Head cable outlet | straight |
| Head thread type | M12 |
| Coding | A |

Cable/line

| | |
|---|-----------|
| Signal type/category | Universal |
| Stripping length of the individual wire | 5 mm |

Environmental and real-life conditions

Ambient conditions

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| | |
|---|----------------------------------|
| Degree of protection | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 85 °C (Plug / socket) |

Standards and regulations

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

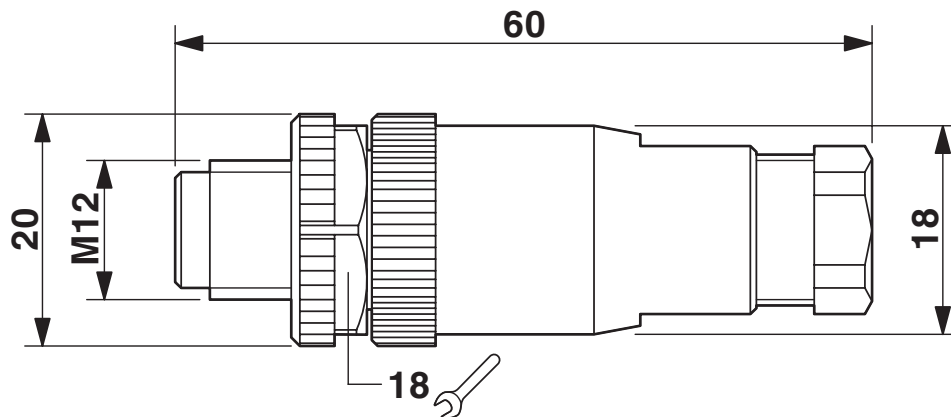
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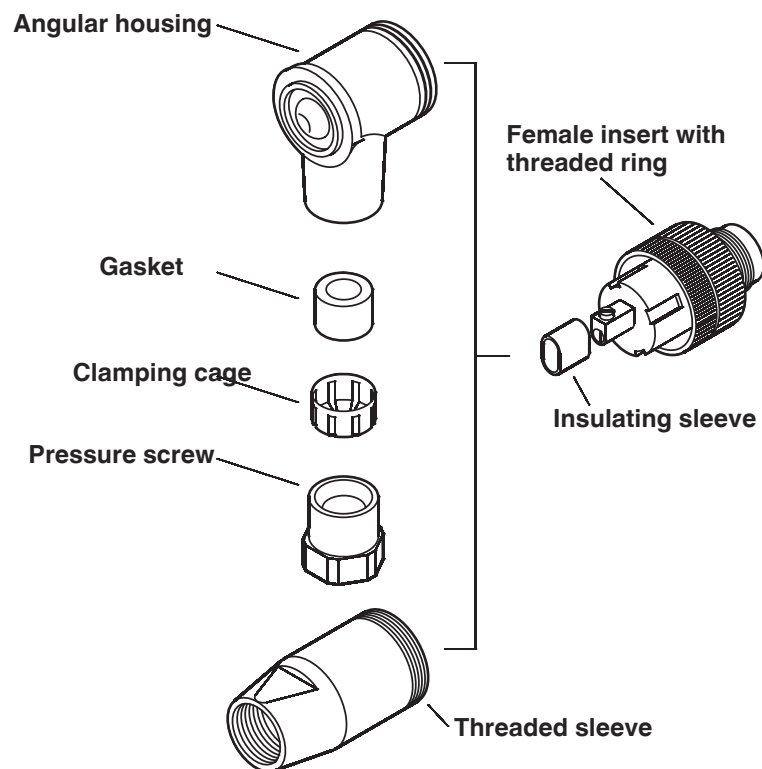
Drawings

Dimensional drawing



Plug, M12 x 1, straight

Schematic diagram

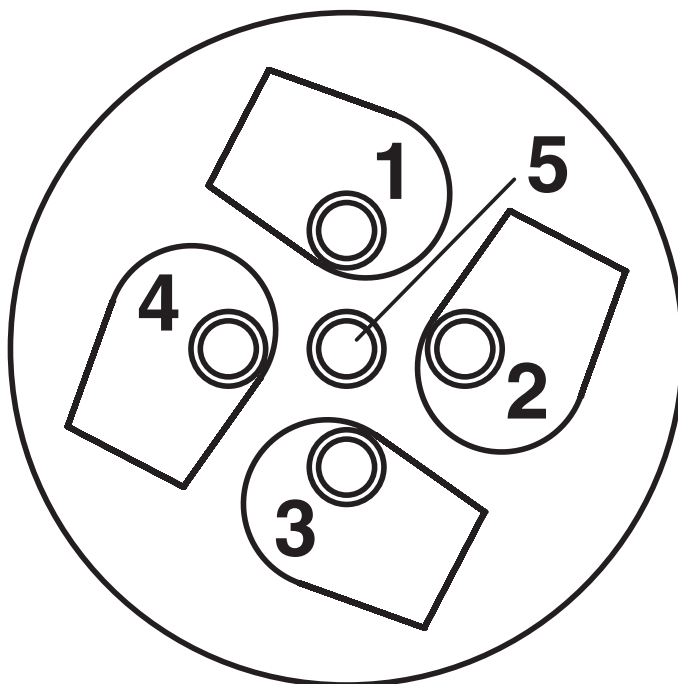


Male/Female M12

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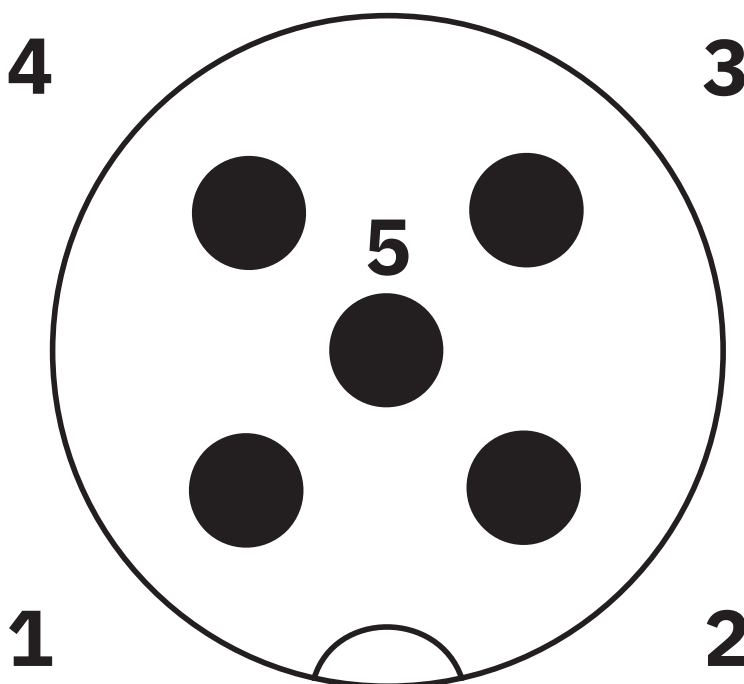
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Schematic diagram



Cable connection side M12 (screw connection)

Schematic diagram



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1663116>

| | | | | |
|---|---|-----------------------|-------------------|-----------------------------|
|  | cUL Recognized Approval ID: FILE E 221474 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 60 V | 4 A | - | - |

| | | | | |
|---|--|-----------------------|-------------------|-----------------------------|
|  | UL Recognized Approval ID: FILE E 221474 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 60 V | 4 A | - | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27440116 |
| ECLASS-15.0 | 27440116 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002635 |
|----------|----------|

UNSPSC

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

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Environmental product compliance

EU RoHS

| | |
|---|------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | d93bebd2-5471-4cb7-a9e9-24611f594177 |

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