# SACC-M12FS-12SOL-PG 9-M SH - Connector

1404411

https://www.phoenixcontact.com/us/products/1404411

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Connector, Universal, 12-position, shielded, Socket straight M12, coding: A, Solder connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

## Your advantages

- Safe use in the field, thanks to a high degree of protection
- Save space – with high-pos. connectors
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

| | |
|---|---|
| Item number | 1404411 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF32 |
| Product key | AF2CGA |
| GTIN | 4046356693844 |
| Weight per piece (including packing) | 46 g |
| Weight per piece (excluding packing) | 45.68 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

## 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. |

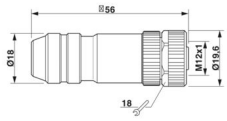
### Product properties

| | |
|---|---|
| Product type | Circular connector (cable-side) |
| Number of positions | 12 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Cable outlet | straight |
| Pg screw connection | Pg9 |

Insulation characteristics

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

### Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Width | 19.6 mm |
| Height | 19.6 mm |
| Length | 56 mm |

External dimensions

| | |
|---|---|
| Outside diameter | 6 mm ... 8 mm |

Housing

| | |
|---|---|
| Diameter housing | 19.6 mm |

### Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | HB |
| Material grommet GRP | NBR |
| Material of grip body | Zinc die-cast, nickel-plated |
| Contact material | CuZn |
| Contact surface material | Au |
| Contact carrier material | PA |
| Material for screw connection | Zinc die-cast, nickel-plated |

## Connection data

Conductor connection

| | |
|---|---|
| Connection method | Solder connection |
| Connection cross section | 0.08 mm² ... 0.25 mm² (without ferrule) |
| | 0.08 mm² ... 0.25 mm² (solid) |
| Connection cross section AWG | 28 ... 24 (without ferrule) |
| Stripping length of the individual wire | 4 mm |
| Tightening torque | 0.4 Nm (M12 knurl) |
| | 0.8 Nm ... 1 Nm (Pressure screw) |

## Electrical properties

| | |
|---|---|
| Rated surge voltage | 0.5 kV |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | > 10 GΩ |
| Nominal voltage $U_N$ | 30 V AC |
| | 30 V DC |
| Nominal current $I_N$ | 1.5 A (up to 40 °C) |

## Mechanical properties

Mechanical data

| | |
|---|---|
| Insertion/withdrawal cycles | ≥ 100 |

## Connector

Connection 1

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

## Interfaces

| | |
|---|---|
| Signal type/category | Universal |

## Environmental and real-life conditions

Ambient conditions

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

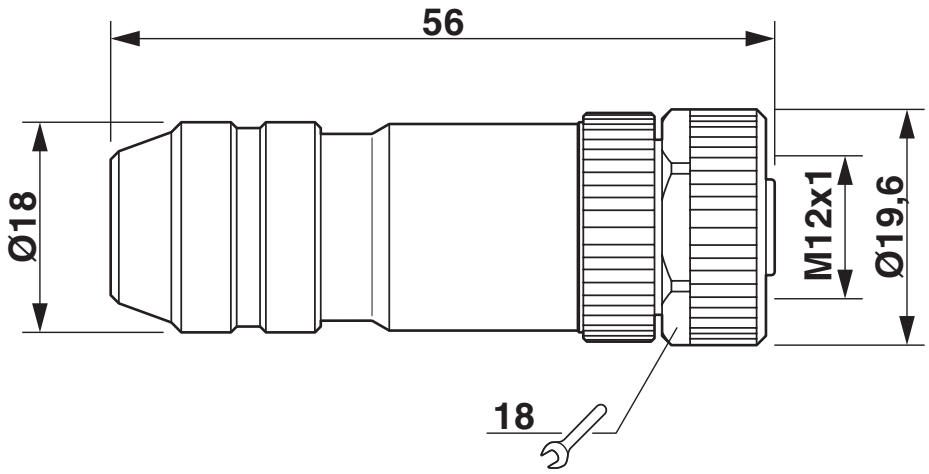
## Standards and regulations

M12

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

## Drawings

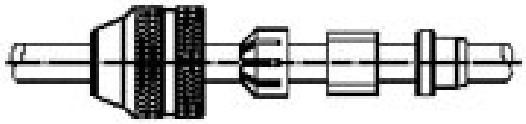
Dimensional drawing



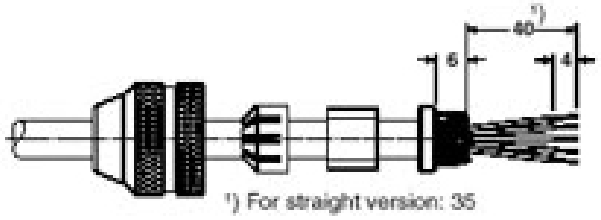

M12 x 1 socket, straight, shielded

Functional drawing

## Assembly steps for M 12 male/female connector and conductor

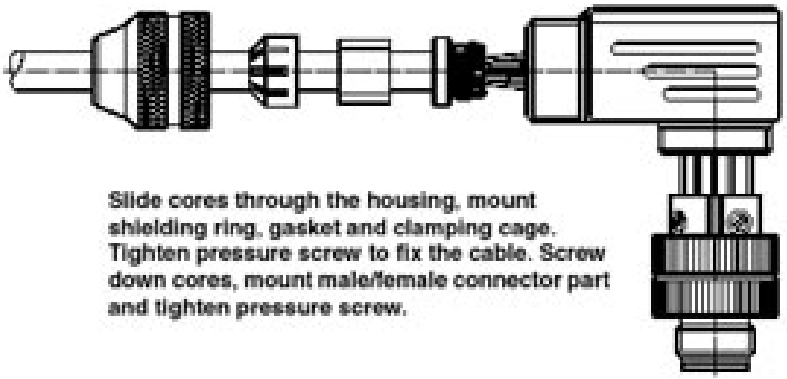


Slide parts onto the conductor



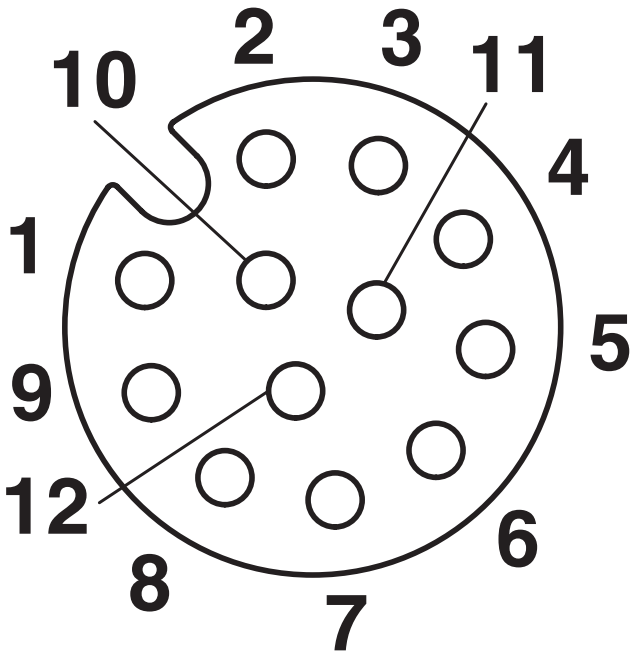

1) For straight version: 35

Strip conductor, widen shield and lay around the shielding ring, cut off projecting mesh.



Slide cores through the housing, mount shielding ring, gasket and clamping cage. Tighten pressure screw to fix the cable. Screw down cores, mount male/female connector part and tighten pressure screw.

Schematic diagram




Pin assignment M12 socket, 12-pos., A-coded, view female side

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1404411

**cUL Recognized**
Approval ID: FILE E 221474

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 30 V | 1 A | - | - |

**UL Recognized**
Approval ID: FILE E 221474

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 30 V | 1 A | - | - |

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002635 |

### UNSPSC

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

## 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 | d08ccea1-0fc3-488a-a11c-dbe81594dac9 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 2.71 kg CO2e |

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