

# SACC-M12FS-5CON-PG 7-SH - Connector



1694305

<https://www.phoenixcontact.com/in/products/1694305>

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Connector, Universal, 5-position, shielded, Socket straight M12, A, Screw connection, knurl material: Nickel-plated brass, 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
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial Data

Item number	1694305
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF2
Product Key	BF2CBA
Catalog Page	Page 24 (C-2-2019)
GTIN	4017918181307
Weight per Piece (including packing)	60 g
Weight per Piece (excluding packing)	59.5 g
Customs tariff number	85366990
Country of origin	CN

## Technical Data

### Notes

Assembly instruction:

**NOTE:** Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.

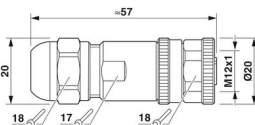
### Product properties

Product type	Circular connector (cable-side)
Number of positions	5
No. of cable outlets	1
Shielded	yes
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	57 mm

### External dimensions

Outside diameter	4 mm ... 6 mm
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### Housing

Diameter housing	20 mm
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### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	Nickel-plated brass
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	Nickel-plated brass

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## Connection data

### Conductor connection

Connection method	Screw connection
Connection cross section	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (without ferrule)
	0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (with ferrule)
	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (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 nut with coupling sleeve)

## Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 100
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## Connector

### Connection 1

Head design	Socket
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

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

## Standards and regulations

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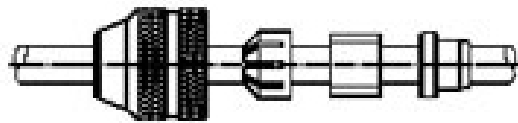
Standards/specifications

IEC 61076-2-101

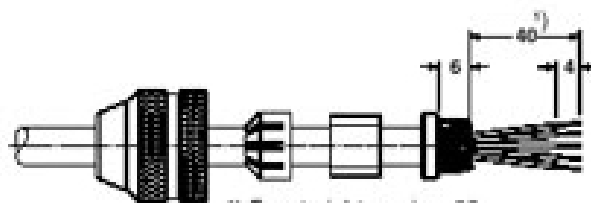
## Drawings

### Functional drawing

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

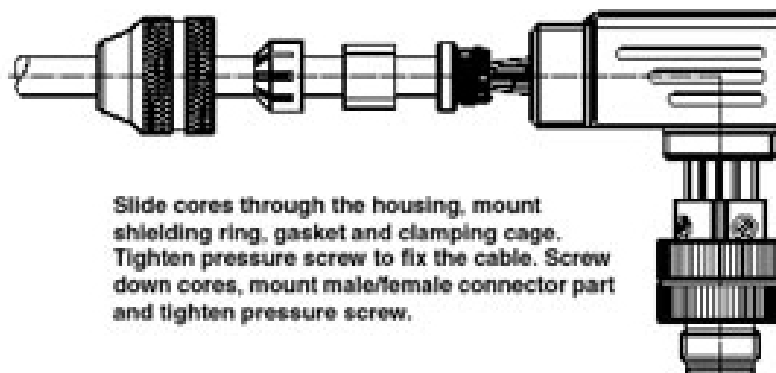


Slide parts onto the conductor



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.

#### Assembly steps for M12 male/female plug and conductor

a = Slide on parts

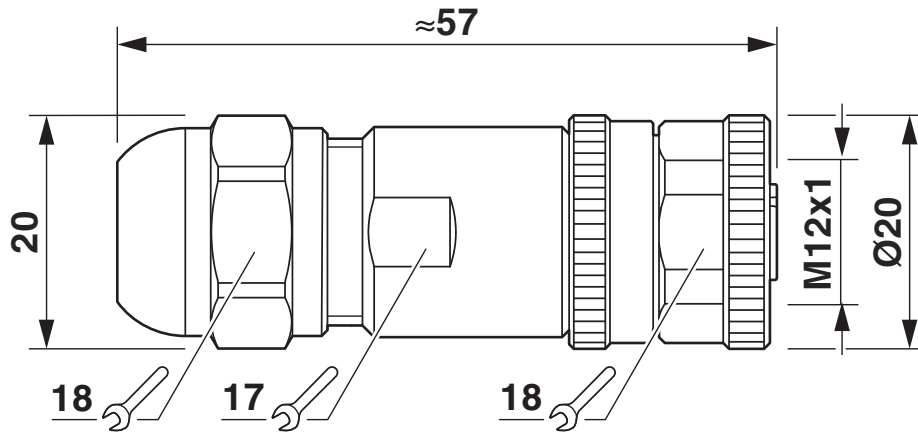
b= Strip conductor, widen shield and lay around the shielding ring, cut off projecting mesh. Slide cores through the housing. Mount shielding ring, gasket and clamping cage. Tighten pressure screw to fix the cable. Screw down cores. Mount male/female part. Tighten pressure screw.

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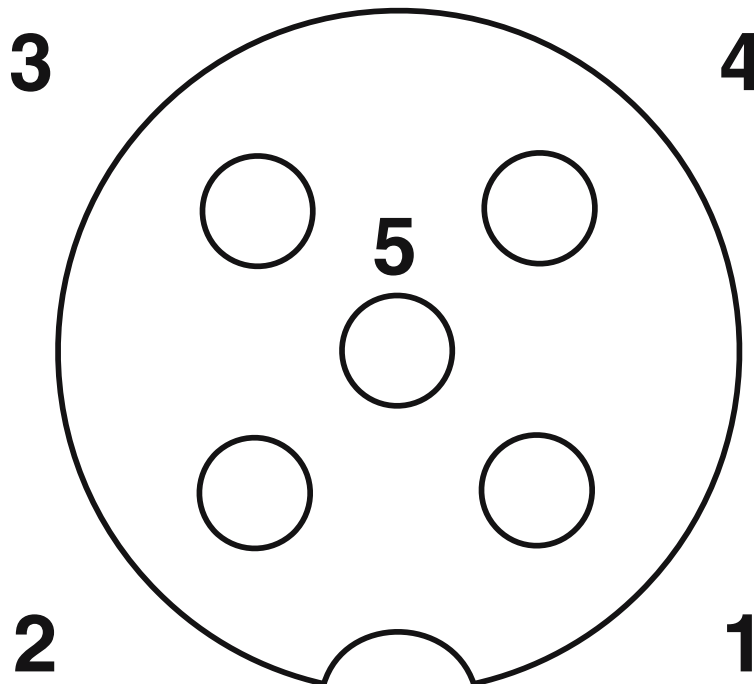
<https://www.phoenixcontact.com/in/products/1694305>

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

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## Approvals

 <b>cUL Recognized</b> Approval ID: FILE E 221474				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	60 V	4 A	-	-

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## Classifications

### ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

### ETIM

ETIM 8.0	EC002635
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### 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

### TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/in/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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### SACC BIT M12-D20 - Tool

1208445

<https://www.phoenixcontact.com/in/products/1208445>



Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive

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## TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/in/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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## TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/in/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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## PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/in/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



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## SAC-5P-100,0-PUR/SH-0,34 - Cable reel

1501728

<https://www.phoenixcontact.com/in/products/1501728>

By the meter, Cable reel, shielded, PUR halogen-free, black-gray RAL 7021, 5-wire, color single wire: brown, white, blue, black, gray, cable length: 100 m



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## A 0,25- 5 - Ferrule

3202465

<https://www.phoenixcontact.com/in/products/3202465>



Ferrule, length: 5 mm, color: silver

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## CRIMPFOX 6H - Crimping pliers

1212046

<https://www.phoenixcontact.com/in/products/1212046>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, unlockable pressure lock, lateral entry

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## WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/in/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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## VS-CABLE-STRIP-VARIO - Stripping tool

1657407

<https://www.phoenixcontact.com/in/products/1657407>

Stripping tool, for the multi-level stripping of shielded cables



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## SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/in/products/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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