

# SACC-M12FR-12SOL-PG 9-M SH - Connector

1404413

<https://www.phoenixcontact.com/us/products/1404413>



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## 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	1404413
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF32
Product key	AF2CGA
GTIN	4046356693868
Weight per piece (including packing)	67.39 g
Weight per piece (excluding packing)	67.39 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

### Notes

Assembly note	<b>NOTE:</b> 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.
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### Mounting

Assembly note	The connector pin assignment can be rotated 90° to the cable outlet
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### Product properties

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

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Dimensions

Dimensional drawing	
Width	19.6 mm
Height	55 mm
Length	36.9 mm

### External dimensions

Outside diameter	6 mm ... 8 mm
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### Housing

Diameter housing	19.6 mm
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### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR

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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 mm <sup>2</sup> ... 0.25 mm <sup>2</sup> (without ferrule)
	0.08 mm <sup>2</sup> ... 0.25 mm <sup>2</sup> (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 <sub>N</sub>	30 V AC 30 V DC
Nominal current I <sub>N</sub>	1.5 A (up to 40 °C)

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 100
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## Connector

### Connection 1

Head design	Socket
Head cable outlet	angled
Head thread type	M12
Coding	A

## Cable/line

Signal type/category	Universal
Stripping length of the individual wire	4 mm

## Environmental and real-life conditions

### Ambient conditions

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

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connector)

## Standards and regulations

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

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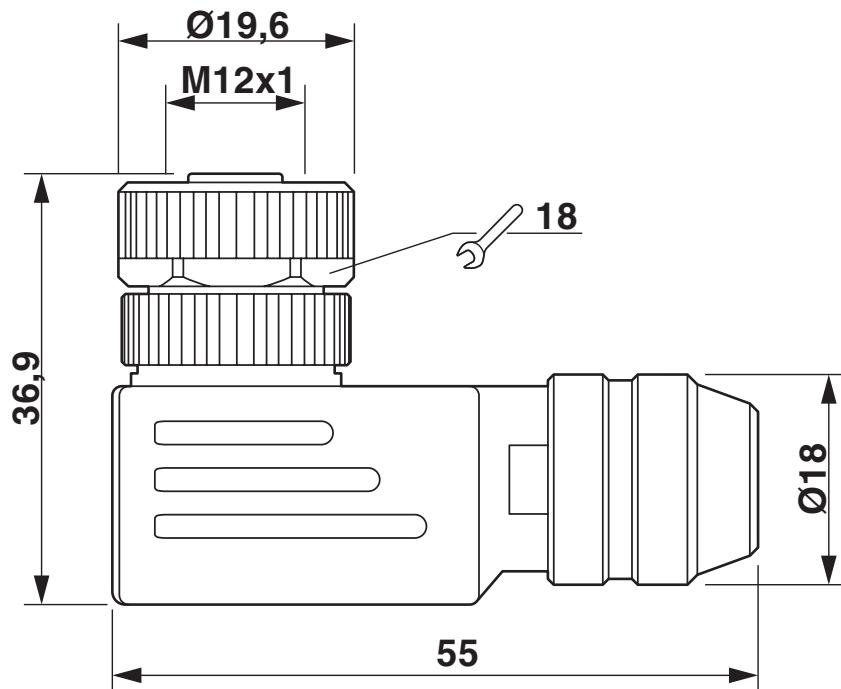


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## Drawings

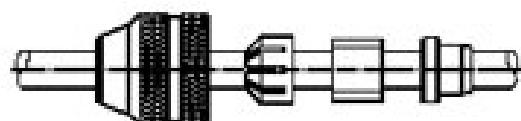
Dimensional drawing



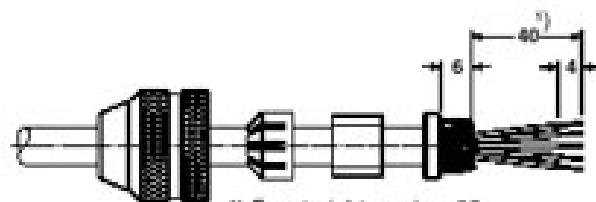
M12 x 1 socket, angled, shielded

## Functional drawing

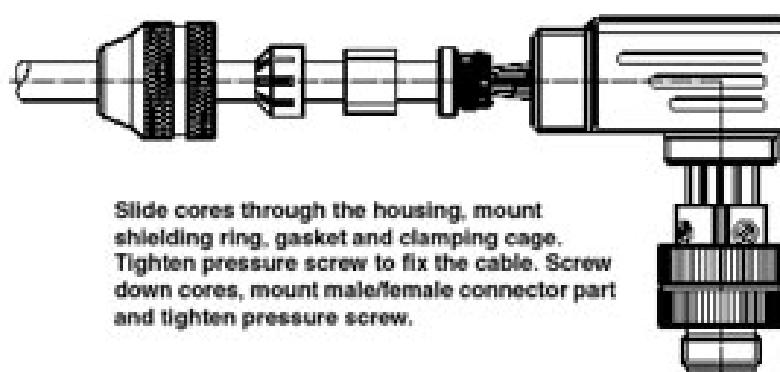
### Assembly steps for M 12 male/female connector and conductor



Slide parts onto the conductor



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.

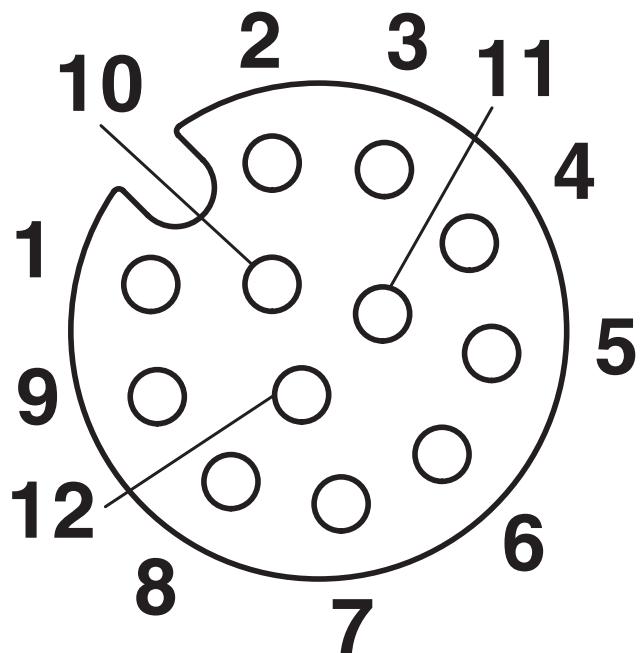
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Schematic diagram



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

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1404413>

		cUL Recognized		
		Approval ID: FILE E 221474		
		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG
keine		30 V	1 A	-
				-

		UL Recognized		
		Approval ID: FILE E 221474		
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## Classifications

### ECLASS

ECLASS-13.0	27440116
ECLASS-15.0	27440116

### ETIM

ETIM 9.0	EC002635
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### 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	592fa027-e075-4dac-b7de-ec822660408e

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