

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



1404413

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

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Connector, Universal, 12-position, shielded, Socket angled 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	1404413
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF32
Product key	BF2CGA
Catalog page	Page 26 (C-2-2019)
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	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.
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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 ² ... 0.25 mm ² (without ferrule)
	0.08 mm ² ... 0.25 mm ² (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
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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)	-40 °C ... 85 °C (Plug / socket)

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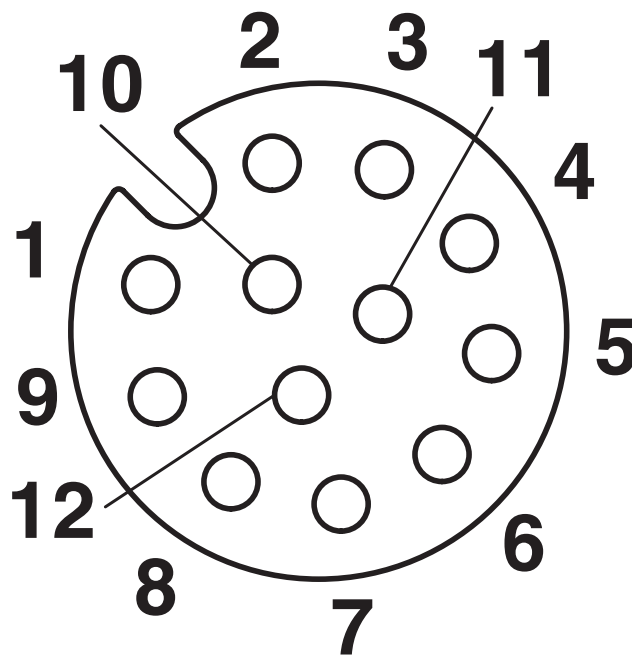
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Standards and regulations

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

Drawings

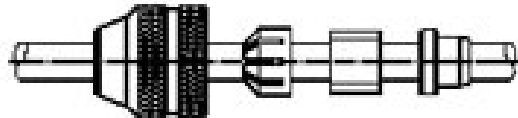
Schematic diagram



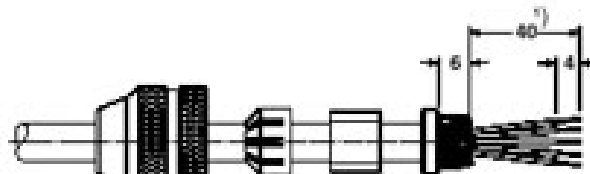
Pin assignment M12 socket, 12-pos., A-coded, view female side

Functional drawing

Assembly steps for M 12 male/female connector and conductor

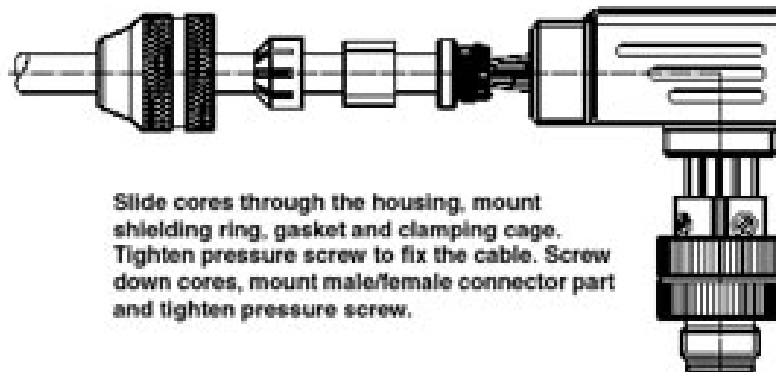


Slide parts onto the conductor



*) 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.

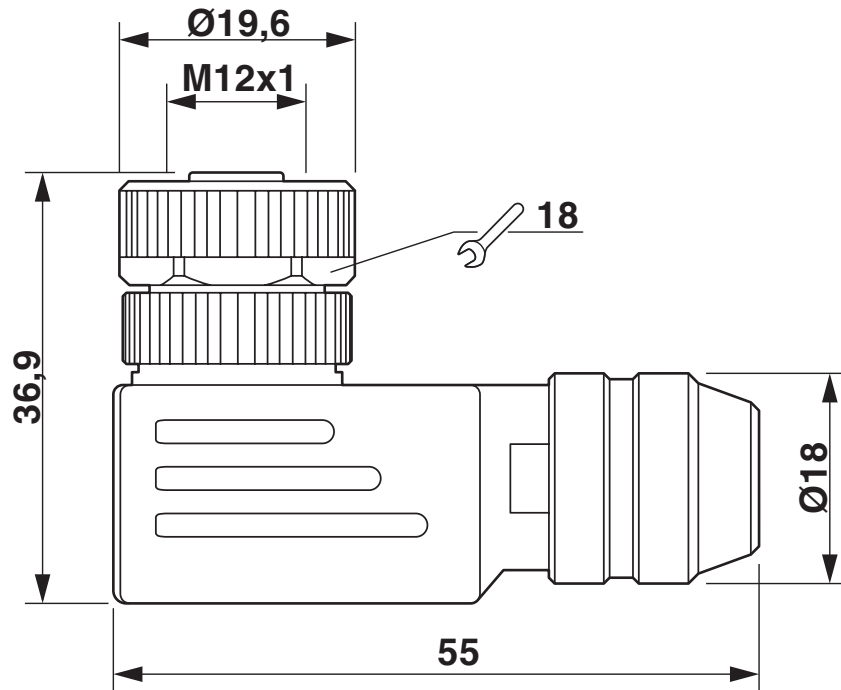
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Dimensional drawing



M12 x 1 socket, angled, shielded

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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	Cross section mm^2
	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
	30 V	1 A	-	-

cULus Recognized				
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Classifications

ECLASS

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

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

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

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



TSD 04 SAC - Torque screwdriver

1208429

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

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



TSD-M 1,2NM - Torque screwdriver

1212224

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



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

WIREFOX SAC - Stripping tool

1212623

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

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



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