

SACC-M12FR-5CON-PG9-M - Connector



1681499
<https://www.phoenixcontact.com/us/products/1681499>

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Connector, Universal, 5-position, Socket angled M12, coding: A, Screw 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
- Screw connection: proven connection technology for a large selection of different conductors

Commercial data

Item number	1681499
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF30
Product key	BF2CAA
Catalog page	Page 22 (C-2-2019)
GTIN	4017918157418
Weight per piece (including packing)	27.95 g
Weight per piece (excluding packing)	27.76 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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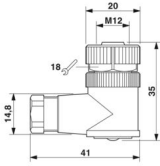
Product properties

Product type	Circular connector (cable-side)
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	angled
Pg screw connection	Pg9

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Dimensions

Dimensional drawing	
Length	35 mm

External dimensions

Outside diameter	6 mm ... 8 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	PA
Contact material	CuZn

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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 with sleeve housing)

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
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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	5 mm

Environmental and real-life conditions

Ambient conditions

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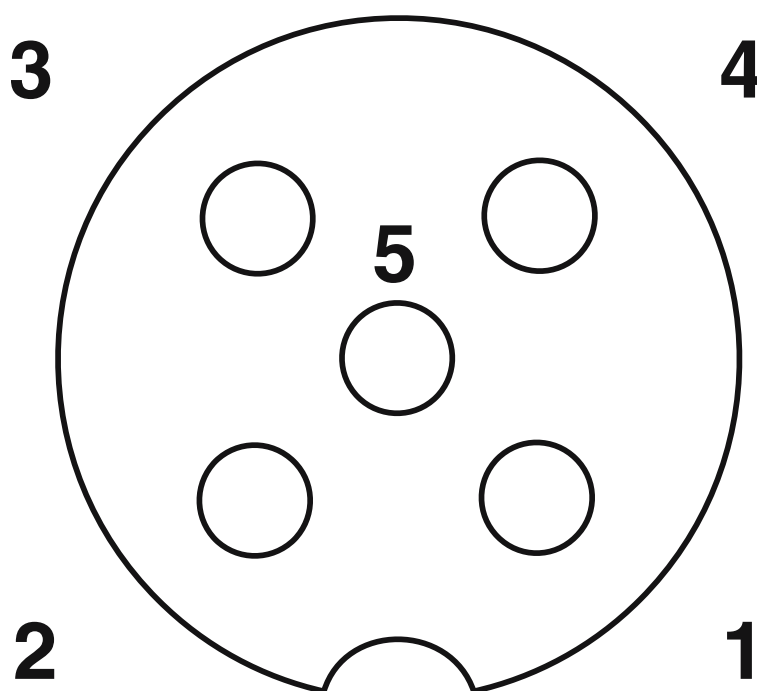
Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)
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Standards and regulations

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

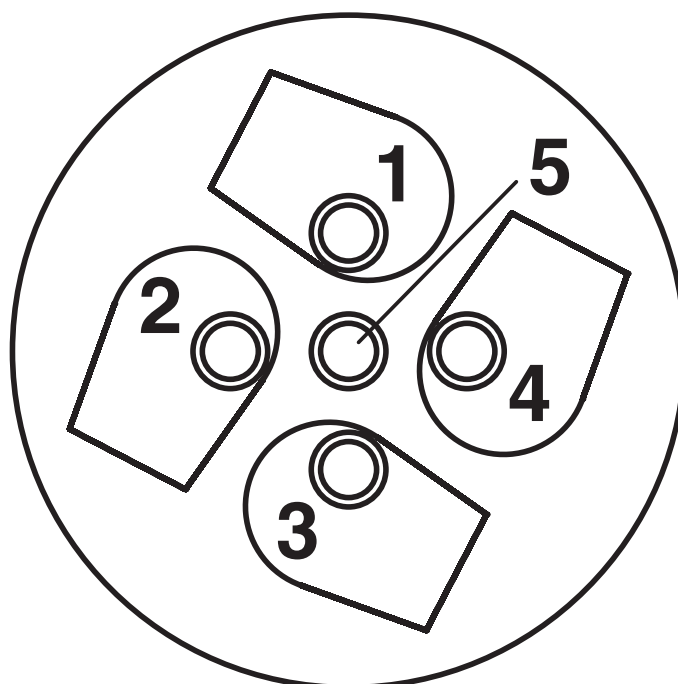
Drawings

Schematic diagram



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

Schematic diagram

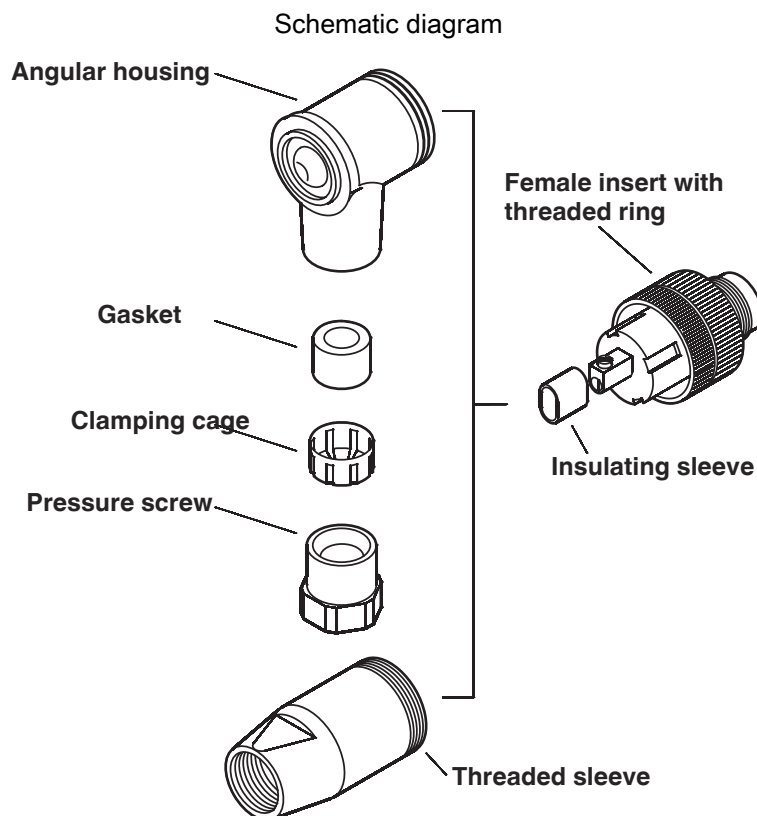


Cable connection side M12 (screw connection)

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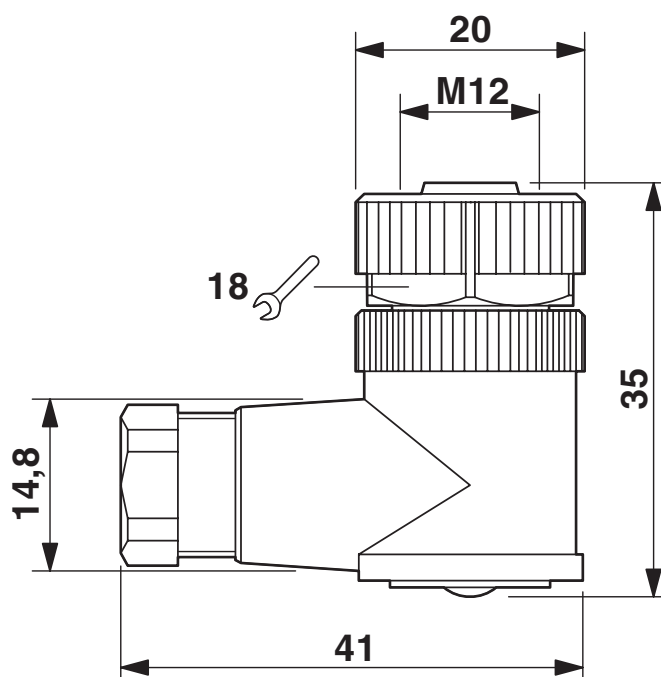
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Male/Female M12

Dimensional drawing



M12 x 1 socket, angled

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1681499>

 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	-	-

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	9d28a4a2-33a3-4cd0-adc1-d163d9fc17d0

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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



SAC-5P-100,0-186/0,75 - Cable reel

1535590

<https://www.phoenixcontact.com/us/products/1535590>

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



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TSD 04 SAC - Torque screwdriver

1208429

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

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

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

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CRIMPFOX 6H - Crimping pliers

1212046

<https://www.phoenixcontact.com/us/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 mm² ... 6 mm², unlockable pressure lock, lateral entry

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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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

SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/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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