

1681499

https://www.phoenixcontact.com/in/products/1681499

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Connector, Universal, 5-position, Socket angled M12, 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	BF2
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

General	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.

### Mounting

Assembly instructions	The connector pin assignment can be rotated $90\ensuremath{^\circ}$ to the cable outlet
Connection method	Screw connection

### Product properties

5
Universal
1
no
A
angled
Pg9

#### Insulation characteristics

modification ordinates and a second s	
Overvoltage category	II
Degree of pollution	3

### Di

Seal material

Dimensional drawing	la 20 m
	18 29
Length	35 mm
external dimensions	
Outside diameter	6 mm 8 mm
Housing	
Diameter housing	20 mm
terial specifications	
Color Handle area	black
Flammability rating according to UL 94	НВ

NBR



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Material of grip body	PA
Contact material	CuZn
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 <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 mm² 0.75 mm² (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 <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	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



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#### Ambient conditions

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

### S

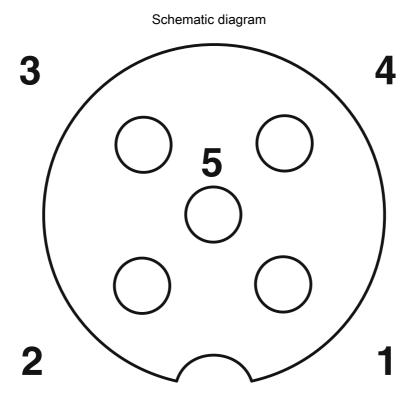
Standards/specifications	IEC 61076-2-101
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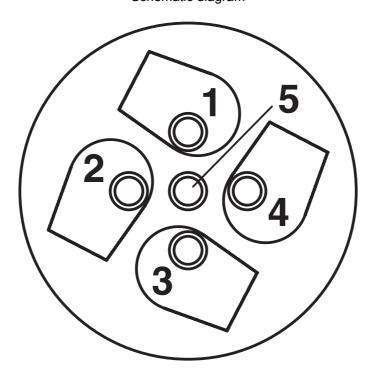


## Drawings



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

Schematic diagram



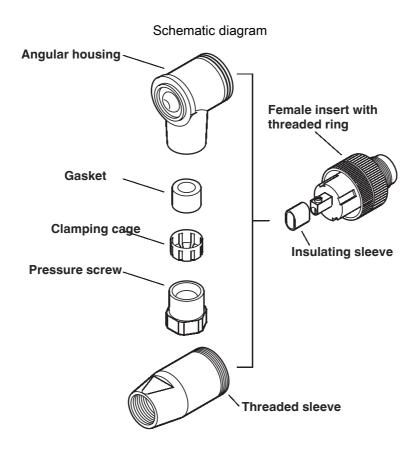
Cable connection side M12 (screw connection)



1681499

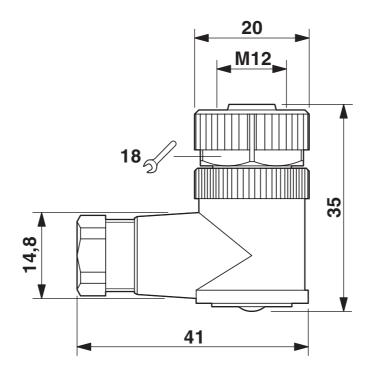
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Male/Female M12

Dimensional drawing





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## Approvals

. <b>7.1</b>	<b>cUL Recognized</b> Approval ID: FILE E 221	474			
		Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		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		
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

### 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

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

1430899

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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/in/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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### 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  $\text{mm}^2$  ... 6  $\text{mm}^2$ , unlockable pressure lock, lateral entry

### 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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#### 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  $\emptyset$  of 4.4 to 7 mm, any stripping length

#### 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:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip

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