

1681486

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Connector, Universal, 5-position, Socket straight 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	1681486
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	02
Product key	BF2CAA
Catalog page	Page 22 (C-2-2019)
GTIN	4017918157449
Weight per piece (including packing)	26.4 g
Weight per piece (excluding packing)	26 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 unstream of the connector e.g. by using cable ties
	jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.

## Mounting

Connection method	Screw connection

## 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	straight
Pg screw connection	Pg9
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

## Dimensions

Dimensional drawing	
	84
Length	54 mm
External dimensions	
Outside diameter	6 mm 8 mm
Housing	
Diameter housing	20 mm
Material specifications	

## Μ

Flammability rating according to UL 94	НВ
Seal material	NBR
Material of grip body	PA
Contact material	CuZn
Contact surface material	CuSnZn



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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 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 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 <sub>N</sub>	4 A

## Mechanical properties

## Mechanical data

Insertion/withdrawal cycles	≥ 50

## 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)



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# Standards and regulations

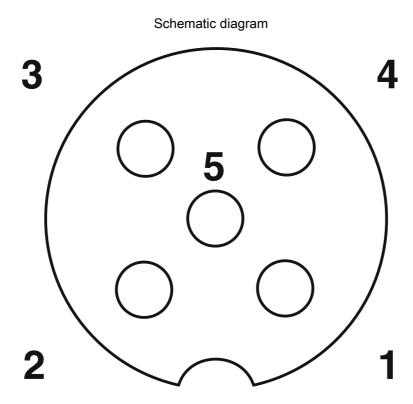
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



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# Drawings



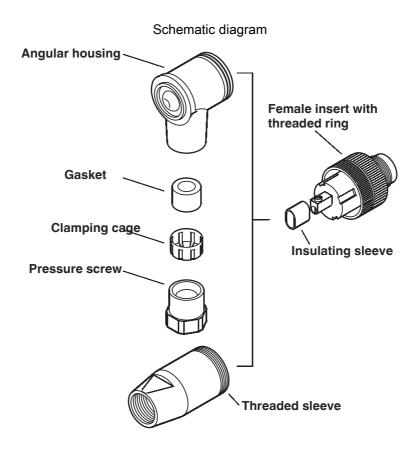
Pin assignment M12 socket, 5-pos., A-coded, socket side view



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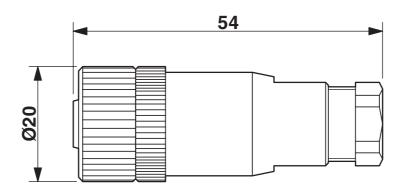


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Male/Female M12

Dimensional drawing

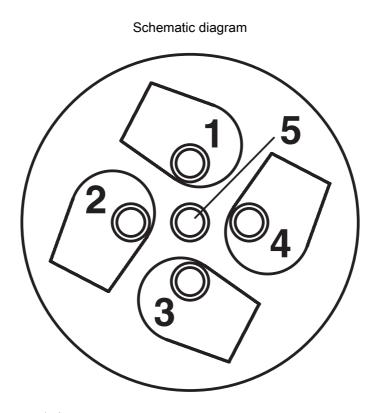


M12 x 1 socket, straight



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Cable connection side M12 (screw connection)



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# **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1681486

.71	cUL Recognized Approval ID: FILE E 221474				
	1	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	4 A	-	-

<b>71</b>	UL Recognized Approval ID: FILE E 221474				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	4 A	-	-

cULus Recognized



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# Classifications

UNSPSC 21.0

## **ECLASS**

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116
ETIM	
ETIM 8.0	EC002635
UNSPSC	

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

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

https://www.phoenixcontact.com/pc/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

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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

https://www.phoenixcontact.com/pc/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/pc/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/pc/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/pc/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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SZF 1-0,6X3,5 - Screwdriver

1204517

https://www.phoenixcontact.com/pc/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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