#### 1681127

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Connector, Universal, 4-position, Socket straight M12, A, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg7, external cable diameter 4 mm ... 6 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	1681127
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF2
Product Key	BF2CAA
Catalog Page	Page 22 (C-2-2019)
GTIN	4017918157456
Weight per Piece (including packing)	25 g
Weight per Piece (excluding packing)	24.57 g
Customs tariff number	85366990
Country of origin	DE

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### **Technical Data**

### Notes

Assembly instruction:	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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### Product properties

Product type	Circular connector (cable-side)	
Number of positions	4	
No. of cable outlets	1	
Shielded	no	
Coding	A	
Cable outlet	straight	
Pg screw connection	Pg7	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	

### Dimensions

Contact carrier material

Dimensional drawing	
Width	20 mm
Height	20 mm
Length	54 mm
External dimensions	
Outside diameter	4 mm 6 mm
Housing	
Diameter housing	20 mm
Material specifications	
Color Handle area	black
Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	PA
Contact material	CuZn
Contact surface material	CuSnZn

PA

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nnection 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)
ectrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 8 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V AC
	250 V DC
Nominal current I <sub>N</sub>	4 A
	4 A
Nominal current I <sub>N</sub> chanical properties	4 A
	4 A
chanical properties	4 A ≥ 50
Achanical properties Mechanical data Insertion/withdrawal cycles	
chanical properties //echanical data	
Achanical properties Mechanical data Insertion/withdrawal cycles	
Achanical properties Nechanical data Insertion/withdrawal cycles	
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1	≥ 50
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design	≥ 50 Socket
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet	≥ 50 Socket straight
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding	≥ 50 Socket straight M12
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line	≥ 50 Socket straight M12 A
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line Signal type/category	≥ 50          Socket         straight         M12         A         Universal
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line	≥ 50 Socket straight M12 A
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line Signal type/category	≥ 50          Socket         straight         M12         A         Universal
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line Signal type/category Stripping length of the individual wire	≥ 50          Socket         straight         M12         A         Universal
Achanical properties Mechanical data Insertion/withdrawal cycles nnector Connection 1 Head design Head cable outlet Head thread type Coding ble/line Signal type/category Stripping length of the individual wire	≥ 50          Socket         straight         M12         A         Universal

Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)
	-40 C 05 C (Flug / SOCKEL)



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Standards and regulations

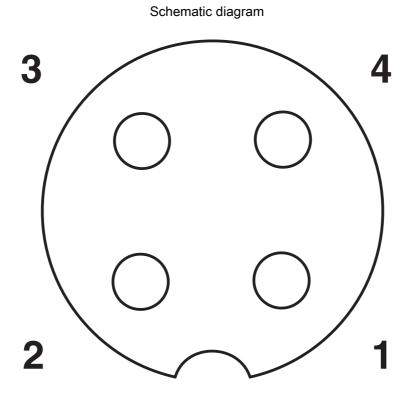
Standards/specifications

IEC 61076-2-101



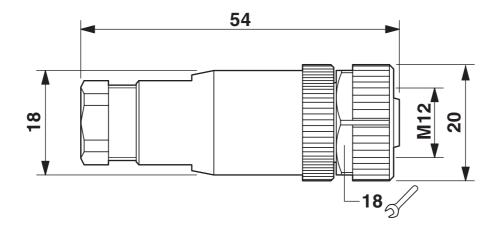
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### Drawings



Pin assignment M12 socket, 4-pos., A-coded, view female side

Dimensional drawing



M12 x 1 socket, straight

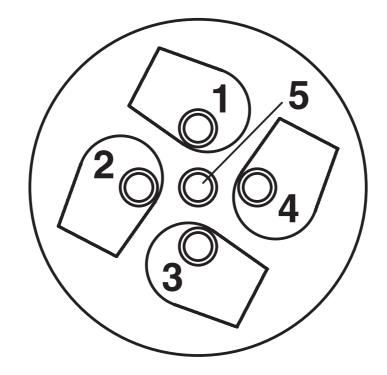
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Schematic diagram



Cable connection side M12 (screw connection)

Angular housing Gasket Clamping cage Pressure screw Clamping cage Clampi

Male/Female M12



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### Approvals

. <b>A</b>	AU CUL 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>
		250 V	4 A	-	-
91	UL Recognized Approval ID: FILE E 2214	474			
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		250 V	4 A	-	-



EAC Approval ID: RU C-DE.BL08.B.00511

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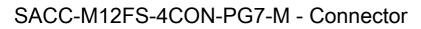
### Classifications

### ECLASS

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

### ETIM

	ETIM 8.0	EC002635		
UN	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

SACC-M12-SET/2,5-3,5 - Connector

1436505 https://www.phoenixcontact.com/in/products/1436505



Sensor/actuator connector, accessories, pressure screw and Pg7 seal, for unshielded M12 connector, cable diameter 2.5 mm - 3.5 mm

#### 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

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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  $\mbox{Nm}$ 

#### 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

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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  $\,$ 



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

1430899 https://www.phoenixcontact.com/in/products/1430899

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



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SAC-4P-100,0-PUR/0,25 - Cable reel

#### 1501692

https://www.phoenixcontact.com/in/products/1501692



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

### SAC-4P-100,0-PUR/0,34 - Cable reel

1501663 https://www.phoenixcontact.com/in/products/1501663



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

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SAC-4P-100,0-186/0,75 - Cable reel

#### 1457461

https://www.phoenixcontact.com/in/products/1457461



By the meter, Cable reel, PUR, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

#### A 0,25-5-Ferrule

3202465 https://www.phoenixcontact.com/in/products/3202465



Ferrule, length: 5 mm, color: silver

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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 mm<sup>2</sup> ... 6 mm<sup>2</sup>, unlockable pressure lock, lateral entry

#### 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 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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