#### 1681143

https://www.phoenixcontact.com/in/products/1681143

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



Connector, Universal, 4-position, Socket angled 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	1681143	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Sales Key	BF2	
Product Key	BF2CAA	
Catalog Page	Page 22 (C-2-2019)	
GTIN	4017918157401	
Weight per Piece (including packing)	26 g	
Weight per Piece (excluding packing)	25.71 g	
Customs tariff number	85366990	
Country of origin	DE	

PHŒN

1681143

https://www.phoenixcontact.com/in/products/1681143



### **Technical Data**

#### Notes

General	<b>NOTE:</b> 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.
ounting	
Assembly instructions	The connector pin assignment can be rotated 90° to the cable outlet
Connection method	Screw connection
oduct properties	
Product type	Circular connector (cable-side)
Number of positions	4
Sensor type	Universal
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	angled
Pg screw connection	Pg7
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

### Dimensions

Dimensions			
Dimensional drawing			
Length	35 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	НВ		
Seal material	NBR		



#### 1681143

https://www.phoenixcontact.com/in/products/1681143

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 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	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

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 50

### 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



https://www.phoenixcontact.com/in/products/1681143

Ambient conditions		
Degree of protection	IP67	
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)	
Standards and regulations		
M12		

Standards/specifications	IEC 61076-2-101
--------------------------	-----------------



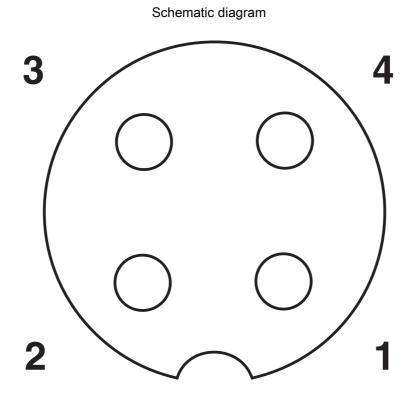
**PHŒNIX** CONTACT

ę



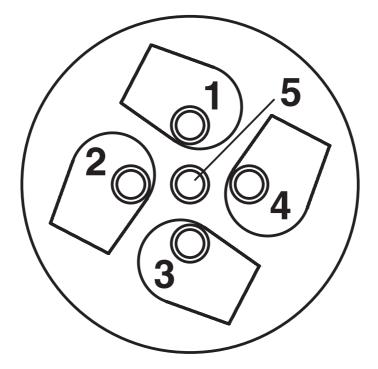
https://www.phoenixcontact.com/in/products/1681143

### Drawings



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

Schematic diagram



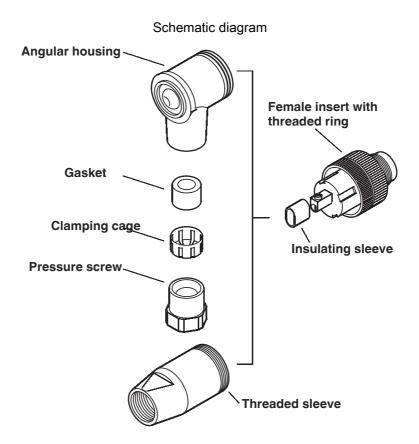
Cable connection side M12 (screw connection)





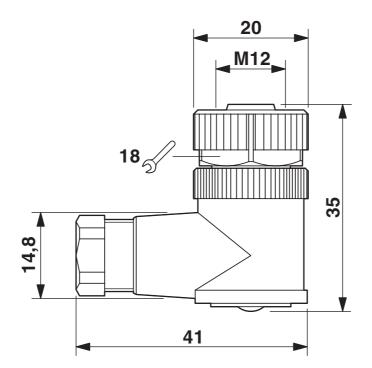
1681143

https://www.phoenixcontact.com/in/products/1681143



Male/Female M12

Dimensional drawing





1681143

https://www.phoenixcontact.com/in/products/1681143

## Approvals

	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	174			
		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

1681143

https://www.phoenixcontact.com/in/products/1681143



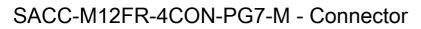
### Classifications

### ECLASS

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

### ETIM

	ETIM 8.0	EC002635			
UN	UNSPSC				
	UNSPSC 21.0	39121400			



1681143

https://www.phoenixcontact.com/in/products/1681143



## **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"

1681143

https://www.phoenixcontact.com/in/products/1681143



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

1681143

https://www.phoenixcontact.com/in/products/1681143



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

1681143

https://www.phoenixcontact.com/in/products/1681143



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



1681143

https://www.phoenixcontact.com/in/products/1681143



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

1681143

https://www.phoenixcontact.com/in/products/1681143



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

#### 1681143

https://www.phoenixcontact.com/in/products/1681143



#### **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

Phoenix Contact 2023 © - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT (I) Pvt. Ltd. A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420 info@phoenixcontact.co.in