1663116

https://www.phoenixcontact.com/in/products/1663116

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, 5-position, Plug 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	<ul> <li>1663116</li> <li>1 pc</li> <li>1 pc</li> <li>BF2</li> <li>BF2CAA</li> <li>Page 22 (C-2-2019)</li> <li>4017918116583</li> <li>23.62 g</li> <li>23.13 g</li> <li>85366990</li> <li>DE</li> </ul>	
Packing unit		
Minimum order quantity		
Sales Key		
Product Key		
Catalog Page		
GTIN		
Weight per Piece (including packing)		
Weight per Piece (excluding packing)		
Customs tariff number		
Country of origin		

1663116

https://www.phoenixcontact.com/in/products/1663116



## **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.
ounting	
Assembly instructions	The wires can be connected both with ferrules and without ferrules
Connection method	Screw connection
oduct properties	
Product type	Circular connector (cable-side)
Number of positions	5
Sensor type	Universal
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	straight
Pg screw connection	Pg7
nsulation characteristics	
Overvoltage category	II
Degree of pollution	3

## Dimensions

Jimensions	
Dimensional drawing	
Width	20 mm
Height	20 mm
Length	60 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



#### 1663116

https://www.phoenixcontact.com/in/products/1663116

Seal material	NBR	
Material of grip body	PA	
Contact material	CuZn CuSnZn PA	
Contact surface material		
Contact carrier material		
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)	

### **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

### Connector

Connection 1			
Head design	Plug		
Head cable outlet	straight		
Head thread type	M12		
Coding	A		

### Cable/line

Signal type/category	Universal
Stripping length of the individual wire	5 mm



1663116

https://www.phoenixcontact.com/in/products/1663116

### Environmental and real-life conditions

#### Ambient conditions

	Degree of protection	IP67	
	Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)	
Standards and regulations			
	Standards/specifications	IEC 61076-2-101	

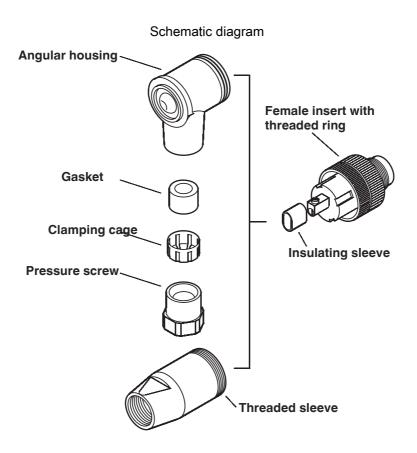


1663116

https://www.phoenixcontact.com/in/products/1663116



## Drawings

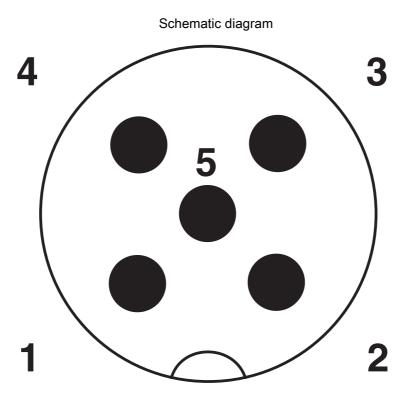


Male/Female M12



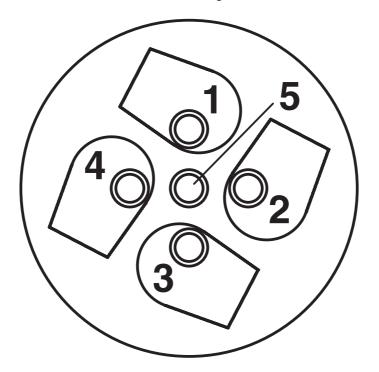
1663116

https://www.phoenixcontact.com/in/products/1663116



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



Cable connection side M12 (screw connection)

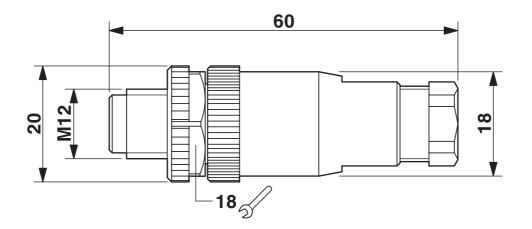




1663116

https://www.phoenixcontact.com/in/products/1663116

Dimensional drawing



Plug, M12 x 1, straight



1663116

https://www.phoenixcontact.com/in/products/1663116

## Approvals

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	-	-	
<b>F/</b>	UL Recognized Approval ID: FILE E 221	474				

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	-	-

1663116

https://www.phoenixcontact.com/in/products/1663116



## Classifications

### ECLASS

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

### ETIM

	ETIM 8.0	EC002635			
UNSPSC					
	UNSPSC 21.0	39121400			



1663116

https://www.phoenixcontact.com/in/products/1663116



## **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"

1663116

https://www.phoenixcontact.com/in/products/1663116



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

1663116

https://www.phoenixcontact.com/in/products/1663116



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

(E) SAG-BOI ADAPION [E]

Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

1663116

https://www.phoenixcontact.com/in/products/1663116



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 FS-PA-CHAIN - Sealing cap

1430873 https://www.phoenixcontact.com/in/products/1430873

 $\mathsf{M12}$  sealing cap made of plastic with fixing band, for sensor cables, for free  $\mathsf{M12}$  plugs



#### 1663116

https://www.phoenixcontact.com/in/products/1663116



SAC-5P-100,0-PUR/0,34 - Cable reel

#### 1501676

https://www.phoenixcontact.com/in/products/1501676



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

### A 0,25-5 - Ferrule

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



Ferrule, length: 5 mm, color: silver

#### 1663116

https://www.phoenixcontact.com/in/products/1663116



### **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