

1694305

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Connector, Universal, 5-position, shielded, Socket straight M12, coding: A, Screw connection, knurl material: Brass, 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
- Reliable signal transmission 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1694305
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF30
Product key	BF2CBA
Catalog page	Page 24 (C-2-2019)
GTIN	4017918181307
Weight per piece (including packing)	60 g
Weight per piece (excluding packing)	59.5 g
Customs tariff number	85366990
Country of origin	CN



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Technical data

Notes

	Assembly note	NOTE: Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.
М	ounting	
	Thread type	0

Product properties

Product type	Circular connector (cable-side)
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight
Pg screw connection	Pg7
Data management status	
Article revision	04
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

Dimensions

Dimensions	
Dimensional drawing	18 A) 17 A) 18 A)
Width	20 mm
Height	20 mm
Length	57 mm
External dimensions	
Outside diameter	4 mm 6 mm
Housing	
Diameter housing	20 mm
Material specifications	
Flammability rating according to UL 94	НВ



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Seal material	NBR
Material of grip body	Brass, nickel-plated
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	Brass, nickel-plated

Connection data

Conductor connection

Connection method	Screw connection
Connection cross section	0.25 mm ² 0.75 mm ² (without ferrule)
	0.14 mm ² 0.5 mm ² (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 nut with coupling sleeve)

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

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



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Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

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

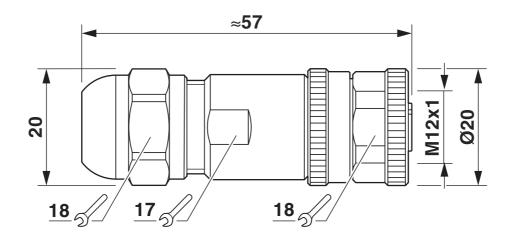
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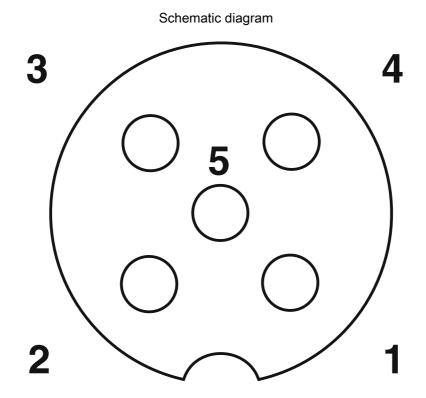


Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded



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

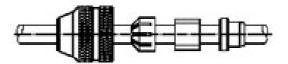
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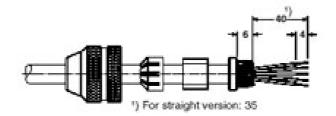


Functional drawing

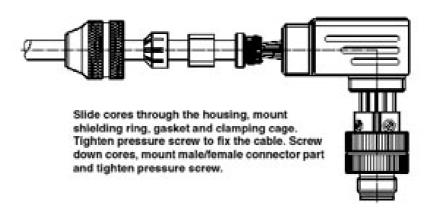
Assembly steps for M 12 male/female connector and conductor



Slide parts onto the conductor



Strip conductor, widen shield and lay around the shielding ring, cut off projecting mesh.



Assembly steps for M12 male/female plug and conductor

a = Slide on parts

b= Strip conductor, widen shield and lay around the shielding ring, cut off projecting mesh. Slide cores through the housing. Mount shielding ring, gasket and clamping cage. Tighten pressure screw to fix the cable. Screw down cores. Mount male/female part. Tighten pressure screw.



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1694305

. 7.1	cUL Recognized Approval ID: FILE E 221474					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²	
		60 V	4 A	-	-	

<i>9</i> 1	UL Recognized Approval ID: FILE E 221	474			
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	4 A	-	-

cULus Recognized



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Classifications

ECLASS

	ECLASS-11.0	27440102	
	ECLASS-12.0	27440116	
	ECLASS-13.0	27440116	
ETIM			
	ETIM 9.0	EC002635	
UN	PSC PSC		
	UNSPSC 21.0	39121400	



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes		
Exemption	6(c)		
China RoHS			
Environment friendly use period (EFUP)	EFUP-50		
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.		
EU REACH SVHC			
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)		
SCIP	12c19019-36f6-4d91-a9e7-62ad1611fbf3		

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