1411906

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Connector, 8-position, shielded, Plug straight M12, coding: A, Screw connection, knurl material: Stainless steel 1.4404, cable gland M16, external cable diameter 3 mm ... 5.5 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	1411906
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF30
Product key	BF2CBA
GTIN	4046356945394
Weight per piece (including packing)	59.71 g
Weight per piece (excluding packing)	59.71 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 mechanica 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	8	
No. of cable outlets	1	
Shielded	yes	
Coding	A	
Cable outlet	straight	
Pg screw connection	M16	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	

Dimensions

Dimensional drawing	Ca. 62
Length	62 mm
External dimensions	
Outside diameter	3 mm 5.5 mm
Housing	
Diameter housing	20 mm
Material specifications	
Seal material	FKM
Material of grip body	Stainless steel 1.4404
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	Stainless steel 1.4404

Connection data

Conductor connection



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Connection method	Screw connection
Connection cross section	0.25 mm ² 0.5 mm ² (without ferrule)
	0.14 mm ² 0.34 mm ² (with ferrule)
	0.25 mm ² 0.5 mm ² (solid)
Connection cross section AWG	24 20 (without ferrule)
	26 22 (with ferrule)
Stripping length of the individual wire	5 mm
Tightening torque	0.4 Nm (M12 knurl)
	0.2 Nm (Screw terminal blocks)
	0.3 Nm 0.4 Nm (Pressure nut with sleeve housing with 3 mm . 4 mm external cable diameter)
	0.8 Nm 1 Nm (Pressure nut with sleeve housing with 4 mm 8 mm external cable diameter)

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V DC
	30 V AC
Nominal current I _N	2 A

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

Connector

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

Cable/line

Stripping length of the individual wire	5 mm
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP69K
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)

Standards and regulations

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

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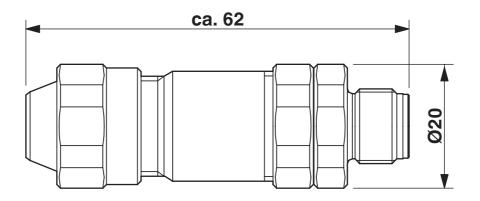
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Drawings

Dimensional drawing

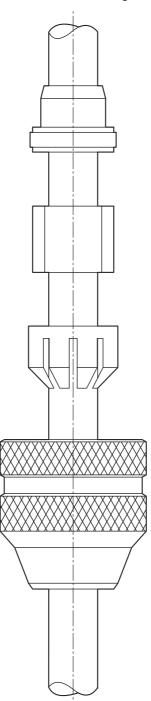


Plug, M12 x 1, straight, shielded

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Functional drawing



Assembly steps for M12 male/female plug and conductor

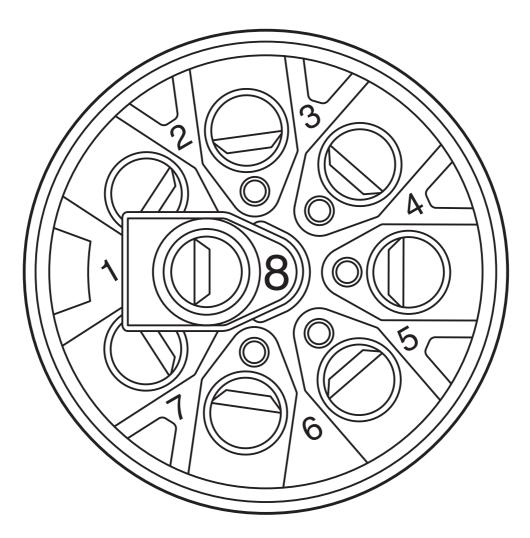
a = Slide on parts

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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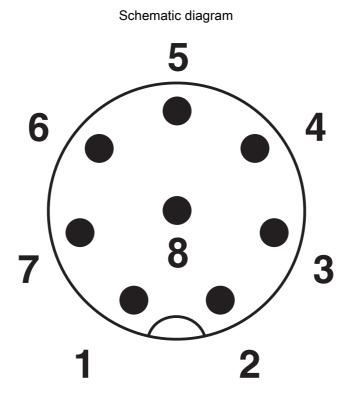
Schematic diagram



Cable connection side M12 (screw connection)



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Pin assignment M12 plug, 8-pos., A-coded, view plug side

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Classifications

ECLASS

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

ETIM

	ETIM 9.0	EC002635
UNSPSC		
	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)

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Accessories

PROT-M12 FS - Sealing cap

1560251 https://www.phoenixcontact.com/us/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

TSD 04 SAC - Torque screwdriver

1208429 https://www.phoenixcontact.com/us/products/1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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SACC BIT M12-W18 - Tool

1231753

https://www.phoenixcontact.com/us/products/1231753

Nut for assembling M12 connectors designed for assembly, with a hexagonal knurl wrench size of 18 mm, with 4 mm hexagonal drive



CRIMPFOX 6H - Crimping pliers

1212046 https://www.phoenixcontact.com/us/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 mm² ... 6 mm², unlockable pressure lock, lateral entry

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VS-CABLE-STRIP-VARIO - Stripping tool

1657407

https://www.phoenixcontact.com/us/products/1657407

Stripping tool, for the multi-level stripping of shielded cables



WIREFOX SAC - Stripping tool

1212623 https://www.phoenixcontact.com/us/products/1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from \emptyset of 4.4 to 7 mm, any stripping length

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SZS 0,4X2,0 - Screwdriver

1205202

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Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

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