

1411582

https://www.phoenixcontact.com/us/products/1411582

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Device connector front mounting, Universal, 12-position, Pin, straight, M12-Standard, coding: A, on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.14 mm<sup>2</sup>, TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238881

### Your advantages

- · Easy-to-install, optimized XL housing contour with wrench size 19
- · Mechanical tightening limitation for long-term-stable gasket
- · Preassembled with litz wires for immediate use
- · Customer-specific assemblies and litz wire lengths available
- · Sealed on the litz wire side for optimum leak-tightness
- · All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- · For high transmission safety: shield connection to the housing with optional EMC nut

### Commercial data

Item number	1411582		
Packing unit	1 pc		
Minimum order quantity	1 pc		
Sales key	AB24		
Product key	ABQCEB		
Catalog page	Page 39 (C-2-2019)		
GTIN	4046356936101		
Weight per piece (including packing)	27.6 g		
Weight per piece (excluding packing)	27.6 g		
Customs tariff number	85444290		
Country of origin	DE		



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## Technical data

### Notes

Notes on operation	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
General	Contact connection method: Crimp connection

### Mounting

Mounting type	Front mounting M16 x 1.5 XL version, tightening limitation		
Assembly instructions	XL version, tightening limitation		

### Product properties

Product type	Circular connectors (device side)	
Application	Signal	
Sensor type	Universal	
Number of positions	12	
No. of cable outlets	1	
Shielded	no	
Coding	A	
Thread type	M12	

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

#### Material specifications

Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Tin-plated Cu litz wires

#### **Electrical properties**

Rated surge voltage	0.8 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V (AC)
	30 V (DC)



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Nominal current I <sub>N</sub>	1.5 A
Max. conductor resistance	57.6 mΩ/m
Connection data	
Conductor connection	
Connection method	Individual wires
Contact connection type	Pin
Conductor cross section	0.14 mm <sup>2</sup>
Tightening torque	0.8 Nm 1.3 Nm (Installation-side)
Mechanical properties	
Mechanical data	
Insertion/withdrawal cycles	> 100
Connector	
Connection 1	
Head design	Pin
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	А
Connection 2 Head design	free cable end
neau design	
Cable/line	
Cable length	0.5 m
Cable type	TPE litz wire
Signal type/category	Universal
Wire diameter incl. insulation	1.1 mm ±0.05 mm
Single wire, color	brown, blue, white, green, pink, yellow, black, gray, red, violet, gray/pink, red/blue
Cable cross section	0.14 mm <sup>2</sup>
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 57.6 mΩ/m
Cable insulation resistance	≥ 20 MΩ*km



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Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)	
	-25 °C 85 °C (Cable, flexible installation)	

#### Environmental and real-life conditions

Ambient conditions			
Degree of protection	IP67		
	IP65/IP67		
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)		
	-40 °C 85 °C (without mechanical actuation)		
	-25 °C 85 °C (Cable, flexible installation)		
	-40 °C 85 °C (cable, fixed installation)		

### Standards and regulations

M12

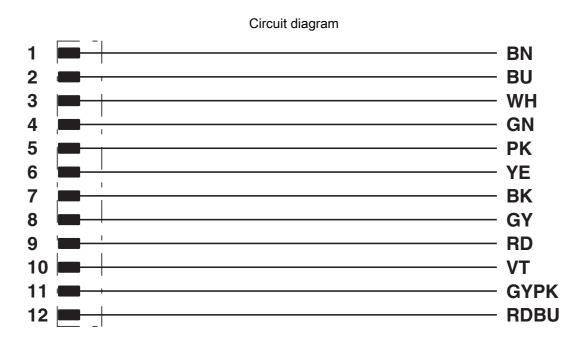
Standard designation	M12 connector	
Standards/specifications	IEC 61076-2-101	



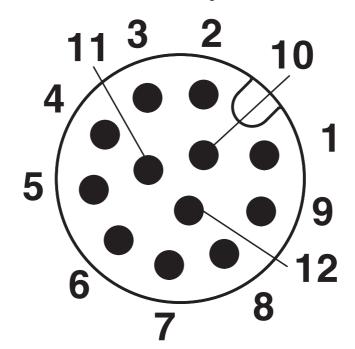
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Drawings



Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view



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### Approvals

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c <b>FLL</b> us	<b>cULus Recogniz</b> Approval ID: E221474	<b>red</b> I-20140616			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		30 V	1.5 A	26 - 26	-



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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	
nvironment 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	f4ca34f0-7420-48a9-9d4f-9a888316df90



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Accessories

SACC-E-MU-M16 - Flat nut

1504097 https://www.phoenixcontact.com/us/products/1504097

Flat nut, Screw mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239863



### 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



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PROT-M12 FS-M - Sealing cap

#### 1430488

https://www.phoenixcontact.com/us/products/1430488



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

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