

1411589

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Device connector rear mounting, Universal, 12-position, Socket, straight, M12-Standard, coding: A, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 0.5 m,  $0.14 \text{ mm}^2$ , TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238888

### 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	1411589
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCHB
Catalog page	Page 50 (C-2-2019)
GTIN	4046356935821
Weight per piece (including packing)	32.01 g
Weight per piece (excluding packing)	32 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.
Order information:	Lock nut is included in the scope of delivery
General	Contact connection method: Crimp connection

### Mounting

Mounting type	Rear mounting M16 x 1.5 XL version, with flat nut, tightening limitation
Assembly instructions	XL version, with flat nut, tightening limitation

### Product properties

Product type	Circular connectors (device side)
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	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V (AC)



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	30 V (DC)
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	Socket
Conductor cross section	0.14 mm²
Tightening torque	0.8 Nm 1.3 Nm (Installation-side)

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100

#### Connector

#### Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	A

#### Connection 2

Head design free	ee cable end
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### 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 mm²
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



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Cable insulation resistance	≥ 20 MΩ*km
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

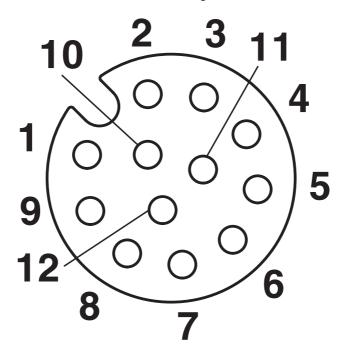


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## **Drawings**

Schematic diagram



Pin assignment M12, 12-pos., female side view

#### Circuit diagram





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## Approvals

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		Nominal voltage $U_N$	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
UN	ISPSC	
	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	2bfd08ff-ce34-495f-b83a-26f9c679360f

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