

1523502

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Device connector front mounting, Universal, 8-position, Pin, straight, M12-SPEEDCON, A-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.25 mm<sup>2</sup>, TPE litz wire, potted, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

### Your advantages

- · 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
- · SPEEDCON fast locking system reduces cabling times

#### Commercial data

Item number	1523502
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCEB
GTIN	4046356021333
Weight per piece (including packing)	29.1 g
Weight per piece (excluding packing)	26.877 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:	Positioning nut is included in the scope of supply
General	Contact connection method: Crimp connection

### Mounting

Mounting type	Front mounting (M16 x 1,5)
Tightening torque	3 Nm 4 Nm (Installation-side)

#### Product properties

Product type	Circular connectors (device side)
Application	Signal
Sensor type	Universal
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12
Insulation characteristics	
Overvoltage category	II

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### Material specifications

Degree of pollution

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	NBR
Contact material	CuZn
Contact surface material	Ni/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



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Nominal voltage U <sub>N</sub>	30 V (AC)
	30 V (DC)
Nominal current I <sub>N</sub>	2 A
Max. conductor resistance	80 mΩ/m

#### Connection data

#### Conductor connection

Connection method	Individual wires
Contact connection type	Pin
Conductor cross-section	0.25 mm²
Tightening torque	3 Nm 4 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	SPEEDCON
Coding	A

#### Connection 2

Head design free 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	1.15 mm ±0.07 mm
Single wire, color	brown, blue, white, gray, pink, green, yellow, red
Cable cross section	0.25 mm²
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	14x 0.15 mm
AWG signal line	24
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 80 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
Ambient temperature (operation) (male connector/female	-25 °C 85 °C (Plug / socket)
connector)	-40 °C 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C 85 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C 85 °C (cable, fixed installation)

### Standards and regulations

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

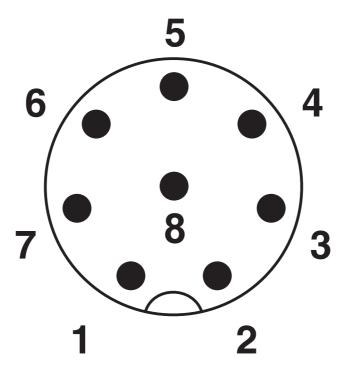


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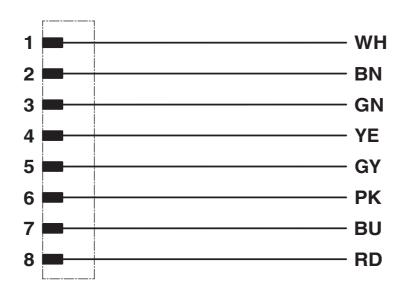
## Drawings

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug



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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1523502

71	SUL Recognized Approval ID: E118976-20100522				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine					
		30 V	2 A	24	-

c <b>711</b> vs	CULus Recognized Approval ID: E221474-20140616			
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	30 V	2 A	24 - 22	-



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### Classifications

#### **ECLASS**

	ECLASS-13.0	27440103	
	ECLASS-15.0	27440103	
ETIM			
	ETIM 9.0	EC003570	
U	NSPSC		
	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	e68c9f4a-8df5-4191-b96b-49c469d333e7

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com