

1070948

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Device connector front mounting, Universal, 8-position, Pin, straight, M12-SPEEDCON, coding: A, on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 1.5 m, 0.25 mm $^2$ , TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238263

# 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	1070948
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB24
Product key	ABQCEB
GTIN	4055626751511
Weight per piece (including packing)	50.6 g
Weight per piece (excluding packing)	50.6 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
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# Product properties

Circular connectors (device side)
Signal
Universal
8
1
no
A
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	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	
Nominal voltage U <sub>N</sub>	30 V (AC)	
	30 V (DC)	
Nominal current I <sub>N</sub>	2 A	



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Max. conductor resistance	80 mΩ/m		
onnection 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)		
echanical properties			
Mechanical data			
Insertion/withdrawal cycles	> 100		
onnector			
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		
Tiedd design	nee sable end		
able/line			
Cable length	1.5 m		
Cable type	TPE litz wire		
Signal type/category	Universal		
Wire diameter incl. insulation	4.45 10.07		
	1.15 mm ±0.07 mm		
Single wire, color	brown, blue, white, gray, pink, green, yellow, red		
Single wire, color  Cable cross section			
•	brown, blue, white, gray, pink, green, yellow, red		
Cable cross section	brown, blue, white, gray, pink, green, yellow, red 0.25 mm²		
Cable cross section  Conductor material	brown, blue, white, gray, pink, green, yellow, red 0.25 mm² Tin-plated Cu litz wires		
Cable cross section Conductor material Conductor structure signal line	brown, blue, white, gray, pink, green, yellow, red 0.25 mm² Tin-plated Cu litz wires 14x 0.15 mm		
Cable cross section  Conductor material  Conductor structure signal line  AWG signal line	brown, blue, white, gray, pink, green, yellow, red 0.25 mm² Tin-plated Cu litz wires 14x 0.15 mm		
Cable cross section  Conductor material  Conductor structure signal line  AWG signal line  Material wire insulation	brown, blue, white, gray, pink, green, yellow, red  0.25 mm²  Tin-plated Cu litz wires  14x 0.15 mm  24  TPE		
Cable cross section Conductor material Conductor structure signal line AWG signal line Material wire insulation Thickness, insulation	brown, blue, white, gray, pink, green, yellow, red  0.25 mm²  Tin-plated Cu litz wires  14x 0.15 mm  24  TPE  0.21 mm (Core insulation)		
Cable cross section Conductor material Conductor structure signal line AWG signal line Material wire insulation Thickness, insulation Nominal voltage, cable	brown, blue, white, gray, pink, green, yellow, red  0.25 mm²  Tin-plated Cu litz wires  14x 0.15 mm  24  TPE  0.21 mm (Core insulation)  300 V		
Cable cross section  Conductor material  Conductor structure signal line  AWG signal line  Material wire insulation  Thickness, insulation  Nominal voltage, cable  Test voltage, cable	brown, blue, white, gray, pink, green, yellow, red  0.25 mm²  Tin-plated Cu litz wires  14x 0.15 mm  24  TPE  0.21 mm (Core insulation)  300 V  2000 V AC		
Cable cross section Conductor material Conductor structure signal line AWG signal line Material wire insulation Thickness, insulation Nominal voltage, cable Test voltage, cable Cable resistance	brown, blue, white, gray, pink, green, yellow, red  0.25 mm²  Tin-plated Cu litz wires  14x 0.15 mm  24  TPE  0.21 mm (Core insulation)  300 V  2000 V AC  ≤ 80 mΩ/m		



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### Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67	
	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	

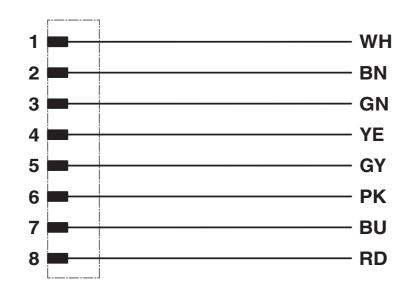


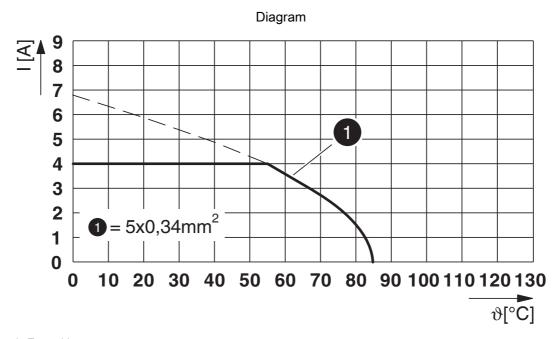
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# Drawings

# Circuit diagram





I = current strength, T = ambient temperature



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# Schematic diagram 5 4 7 8 3

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



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# Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1070948

UL 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>
		30 V	2 A	24 - 24	-

c <b>911</b> us	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>	
		30 V	2 A	24 - 22	-	



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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)
SCIP	3285d59e-99af-4d67-8147-5e12254c12f1



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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



# SACC-M16-SEAL CLM - Flat gasket

1430394

https://www.phoenixcontact.com/us/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread





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# 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

# 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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