

1409288

https://www.phoenixcontact.com/us/products/1409288

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Device connector, rear mounting, Universal, 4-position, Socket, straight, M12, coding: A, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 0.5 m,  $0.34 \text{ mm}^2$ , TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1238810

# Commercial data

Item number	1409288	
Packing unit	1 pc	
Minimum order quantity	50 pc	
Sales key	AB24	
Product key	ABQCHB	
GTIN	4046356909594	
Weight per piece (including packing)	22.98 g	
Weight per piece (excluding packing)	22.98 g	
Customs tariff number	85444290	
Country of origin	DE	



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# Technical data

# Notes

tes	
General	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	Lock nut is included in the scope of delivery
afety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<ul> <li>WARNING: Commission properly functioning products only.</li> <li>The products must be regularly inspected for damage.</li> <li>Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	<ul> <li>WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li> </ul>
	<ul> <li>The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	<ul> <li>When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	<ul> <li>Assembled products may not be manipulated or improperly opened.</li> </ul>
	<ul> <li>Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).</li> </ul>
	<ul> <li>When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>
	<ul> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	<ul> <li>Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>
	Observe the corresponding technical data. You will find information:     o On the product     o On the packing label     o In the supplied documentation     o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact

• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory



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	section of the product at phoenixcontact.com/products
	<ul> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<ul> <li>VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>
	<ul> <li>The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>
Mounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut
Connection method	Individual wires
Product properties	
Product type	Circular connectors (device side)
Sensor type	Universal
Number of positions	4
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
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Conductor material	Tin-plated Cu litz wires
Electrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V
Nominal current I <sub>N</sub>	4 A
Max. conductor resistance	57.6 mΩ/m

### Connection data



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### Conductor connection

Connection method	Individual wires	
Contact connection type	Socket	
Conductor cross section	0.34 mm²	
Tightening torque	3 Nm	
	4 Nm	

# Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	> 100

### Connector

### Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
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	1.2 mm ±0.07 mm		
Single wire, color	brown, white, blue, black		
Conductor material	Tin-plated Cu litz wires		
Conductor structure signal line	7x 0.25 mm		
AWG signal line	22		
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		
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)		
	-25 °C 85 °C (Cable, flexible installation)		

### Environmental and real-life conditions

Ambient conditions



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Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
	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

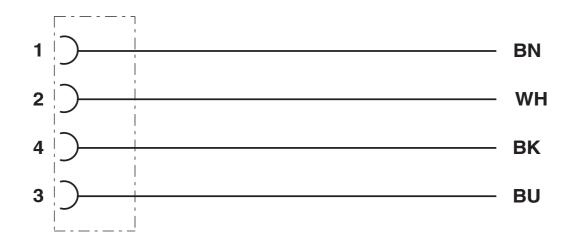


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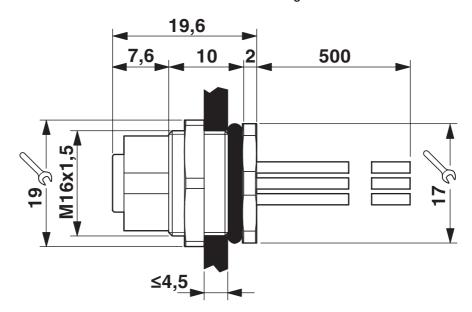
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# Drawings

# Circuit diagram



# Dimensional drawing



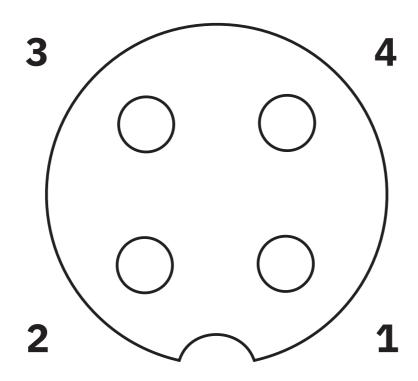
Dimensional drawing



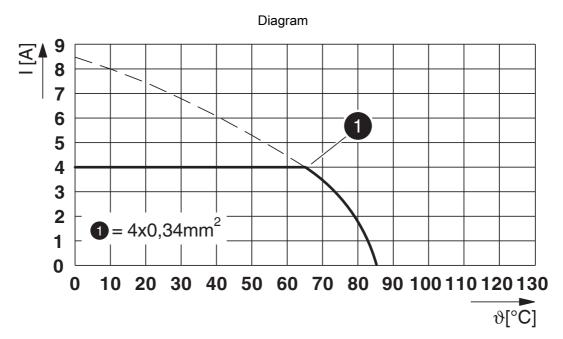
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# Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side





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# Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1409288

CUL Recognized Approval ID: E118976-20100522					
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
	250 V	4 A	- 22	-	

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>
		250 V	4 A	- 22	-

EAC	EAC
LIIL	Approval ID: B.01687

c <b>911</b> vs	cULus Recogniz Approval ID: E221474	red I-20140616			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		250 V	4 A	22 - 20	-

cULus Recognized



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# Classifications

UNSPSC 21.0

### **ECLASS**

	ECLASS-11.0	27440102			
	ECLASS-12.0	27440116			
	ECLASS-13.0	27440116			
ETIM					
	ETIM 8.0	EC002635			
UNSPSC					

39121400



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# Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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### Accessories

PROT-M12 - Screw plug

1680539

https://www.phoenixcontact.com/us/products/1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

### PROT-M12 SH - Screw plug

1503302

https://www.phoenixcontact.com/us/products/1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors



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### PROT-M12 FB - Screw plug

1555538

https://www.phoenixcontact.com/us/products/1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

### 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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