

1239656

https://www.phoenixcontact.com/us/products/1239656

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Device connector rear mounting, PROFIBUS, 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Pin, straight, M12-SPEEDCON, B-coding, on free cable end, Cable connection, cable length: 2 m, PROFIBUS, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

Your advantages

- · Preassembled with cables in various standard lengths for immediate use
- · Customer-specific assemblies and cable lengths can be supplied
- · Sealed on the cable side for optimum tightness of seal
- · Cable designs for all common networks and fieldbuses
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1239656	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Product key	ABQDGB	
GTIN	4063151392925	
Weight per piece (including packing)	142.8 g	
Weight per piece (excluding packing)	134.483 g	
Country of origin	DE	



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Technical data

Notes

otes	
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
Safety 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.
	 WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	 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.
	 The products are suitable for applications in plant, controller, and electrical device engineering.
	 When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	 Assembled products may not be manipulated or improperly opened.
	 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).
	 When using the product in direct connection with third-party manufacturers, the user is responsible.
	 For operating voltages > 50 V AC, conductive connector housings must be grounded
	 Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	Observe the corresponding technical data. You will find information: On the product On the packing label In the supplied documentation 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
	 Ensure that the protective or functional ground has been properly connected.
	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
	 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).
Mounting	
Mounting type	Rear mounting (Pg9)
Tightening torque	2 Nm 3 Nm
Product properties	
	Circular compostant (daving side)
Product type	Circular connectors (device side)
Application	Data PROFIBUS
Sensor type	2
Number of positions No. of cable outlets	1
Shielded	
Coding	yes B
Thread type	M12
Thread type	WIZ
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	Brass, nickel-plated
Outer sheath, material	PUR
Electrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)



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Transmission medium	Copper
Connection data	
Conductor connection	
Connection method	Cable connection
Contact connection type	Pin
Tightening torque	2 Nm 3 Nm
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	В
Connection 2	
Head design	free cable end
Cable/line	
Cable length	2 m
PROFIBUS [910]	
Dimensional drawing	
UL AWM Style	21198 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	PROFIBUS [910]
Conductor structure	1x2xAWG24/19
AWG signal line	24
Conductor cross section	2x 0.25 mm² (Signal line)



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Wire diameter incl. insulation	2.55 mm ±0.05 mm
External cable diameter	7.70 mm ±0.02 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Single wire, color	red, green
Overall twist	2 cores with 2 fillers to the core
Optical shield covering	80 %
Insulation resistance	≥ 5 GΩ*km
Wave impedance	150 Ω ±10 % (3 MHz 20 MHz)
Nominal voltage, cable	≤ 125 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 65 mm, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s ²
Shield attenuation	≤ 4.9 dB (at 16 MHz)
	≤ 4.9 dB (at 4 MHz)
	≤ 0.5 dB (at 38.4 kHz)
	≤ 0.3 dB (at 9.6 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
	IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-404
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-30 °C 70 °C (Cable, flexible installation)
	-20 °C 60 °C (for installation)
	-20 °C 60 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

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)

Standards and regulations

Oten deed deelers!	MAO elle la consection
Standard designation	M12 circular connector



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Standards/specifications according to IEC 61076-2-101

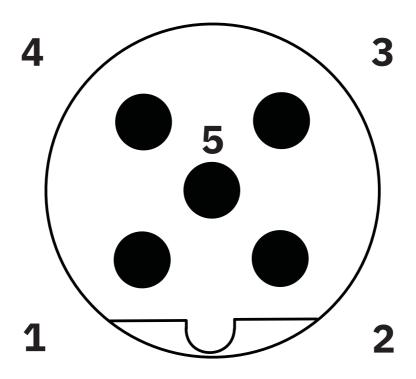


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Drawings

Schematic diagram

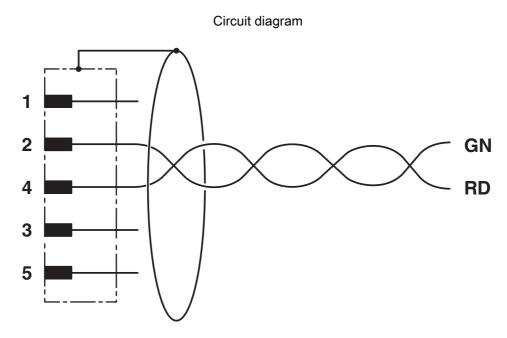


Pin assignment M12 male connector, 5-pos., B-coded, male side



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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/1239656

71	UL Recognized Approval ID: E221474-20220907				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		60 V	2 A	- 22	-

. 51 2	cUL Recognized Approval ID: E221474-20220907				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		60 V	1.5 A	-	-

<i>7</i> .	UL Recognized Approval ID: E118976-20100522				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		60 V	4 A	-	-



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Classifications

ETIM 9.0

ECLASS

	ECLASS-13.0	27440103
	ECLASS-15.0	27440103
ET	ТІМ	

EC003570



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions	
China RoHS		
Environment friendly use period (EFUP)	EFUP-E	
	No hazardous substances above the limits	
EU REACH SVHC		
REACH candidate substance (CAS No.)	No substance above 0.1 wt%	

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