

1437478

https://www.phoenixcontact.com/pc/products/1437478

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Device connector rear mounting, PROFIBUS, 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Socket, straight, M12-SPEEDCON, coding: B, on free cable end, Rear mounting, Cable connection, cable length: 5 m, PROFIBUS, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239653

#### 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	1437478
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABQDGH
Catalog page	Page 426 (C-2-2019)
GTIN	4046356457606
Weight per piece (including packing)	315 g
Weight per piece (excluding packing)	315 g
Customs tariff number	85444290
Country of origin	DE



1437478

https://www.phoenixcontact.com/pc/products/1437478

#### 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.
	<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>
	When using the product in direct connection with third-party manufacturers, the user is responsible.
	<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 protective cap to protect connectors that are not in use.

The suitable accessories are available online in the accessory



1437478

https://www.phoenixcontact.com/pc/products/1437478

	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>
lounting	
Mounting type	Rear mounting
roduct properties	
Product type	Circular connectors (device side)
Sensor type	PROFIBUS
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	В
Thread type	M12
Data management status	
Article revision	12
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
Naterial specifications	
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
Outer sheath, material	PUR
lectrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC



1437478

https://www.phoenixcontact.com/pc/products/1437478

Conductor structure

Nominal current I <sub>N</sub>	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Connection data	
Conductor connection	
Connection method	Cable connection
Contact connection type	Socket
Tightening torque	2 Nm 3 Nm
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	SPEEDCON
Coding	В
Connection 2	
Head design	free cable end
Cable/line	
Cable length	5 m
PROFIBUS [910]	
Dimensional drawing	THE RESERVE THE PARTY OF THE PA
Cable weight	90 kg/km
UL AWM Style	21198 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	PROFIBUS [910]

1x2xAWG24/19



1437478

https://www.phoenixcontact.com/pc/products/1437478

Conductor structure signal line	19x 0.13 mm	
AWG signal line	24	
Conductor cross section	2x 0.25 mm² (Signal line)	
Wire diameter incl. insulation	2.55 mm ±0.07 mm	
External cable diameter	7.80 mm ±0.2 mm	
Outer sheath, material	PUR	
External sheath, color	red lilac RAL 4001	
Conductor material	Tin-plated Cu litz wires	
Material, filler	PP	
Material wire insulation	Foam-Skin PP	
Single wire, color	red, green	
Overall twist	2 cores with 2 fillers to the core	
Optical shield covering	85 %	
Max. conductor resistance	≤ 78.6 Ω/km	
Insulation resistance	≥ 5 GΩ*km	
Wave impedance	150 Ω ±10 % (3 MHz 20 MHz)	
Cable capacity	nom. 30 pF/m	
Nominal voltage, cable	300 V	
Test voltage Core/Core	1500 V (50 Hz, 1 min.)	
Test voltage Core/Shield	1500.00 V (50 Hz, 1 min.)	
Smallest bending radius, fixed installation	40 mm	
Smallest bending radius, movable installation	65 mm	
Max. bending cycles	4000000	
Bending radius	65 mm	
Traversing path	4.5 m	
Traversing rate	3 m/s	
Acceleration	3 m/s²	
Max. bending cycles	5000000	
Bending radius	80 mm	
Traversing path	4.5 m	
Traversing rate	3 m/s	
Acceleration	3 m/s²	
Shield attenuation	≤ 0.049 dB/m (at 16 MHz)	
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	
Other resistance	Low adhesion	
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)	
	-30 °C 70 °C (Cable, flexible installation)	
	-20 °C 60 °C (for installation)	



1437478

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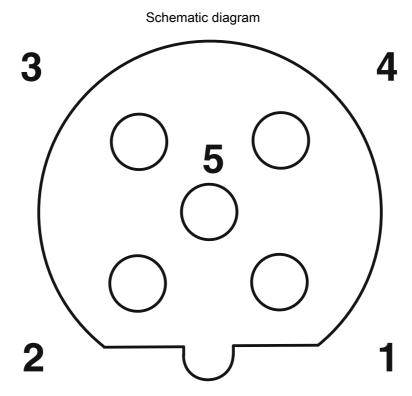
	-20 °C 60 °C (cable, drag chain applications)
nvironmental and real-life conditions	
Ambient conditions	
Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
tandards and regulations	
	M12 connector
Standard designation	
Standards/specifications	IEC 61076-2-101



1437478

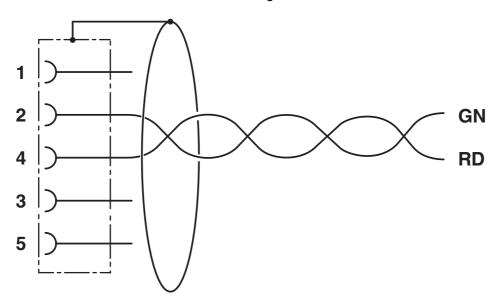
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#### Drawings



Pin assignment M12 socket, 5-pos., B-coded, female side

Circuit diagram





1437478

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#### Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1437478

<b>71</b>	UL Recognized Approval ID: E221474-20220907				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	2 A	- 24	-

<b>.71</b>	<b>cUL Recognized</b> Approval ID: E221474-20220907				
		Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	1.5 A	-	-

7/	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>
		60 V	4 A	-	-



1437478

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#### Classifications

#### **ECLASS**

	ECLASS-11.0	27440103
	ECLASS-12.0	27440103
	ECLASS-13.0	27440103
ETIM		
	ETIM 9.0	EC003570
UNSPSC		
	UNSPSC 21.0	39121400



1437478

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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	bfcd189f-00fd-43aa-b063-8dd77a8f930b

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