

1437452

https://www.phoenixcontact.com/us/products/1437452

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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: 1 m, PROFIBUS, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239651

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	1437452
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGH
Catalog page	Page 426 (C-2-2019)
GTIN	4046356457583
Weight per piece (including packing)	81.1 g
Weight per piece (excluding packing)	81.1 g
Customs tariff number	85444290
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 are applicable when combining several circuits in a cable and/connector
	 The connector warms up in normal operation. Depending on ambient conditions, the surface of the connector can continue warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
ounting	
Mounting type	Rear mounting
oduct 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
nsulation characteristics	
Overvoltage category	II
Degree of pollution	3
aterial 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
Outer sheath, material	PUR
Conductor material	Tin-plated Cu litz wires
ectrical 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)
Transmission medium	Copper



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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
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Cable/line

Cable length	1 m
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PROFIBUS [910]

Dimensional drawing



Cable weight	90 kg/km
UL AWM Style	21198 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	PROFIBUS [910]
Conductor structure	1x2xAWG24/19
Conductor structure signal line	19x 0.13 mm
AWG signal line	24



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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)
	-20 °C 60 °C (cable, drag chain applications)

Environmental and real-life conditions



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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)
	-30 °C 70 °C (Cable, flexible installation)

Standards and regulations

M12

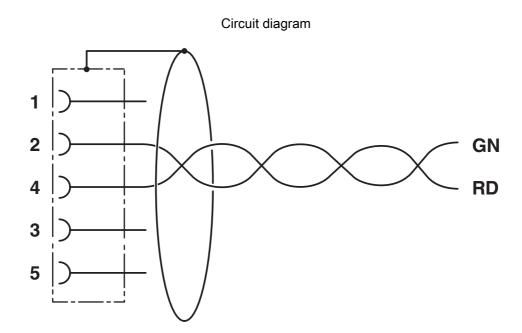
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

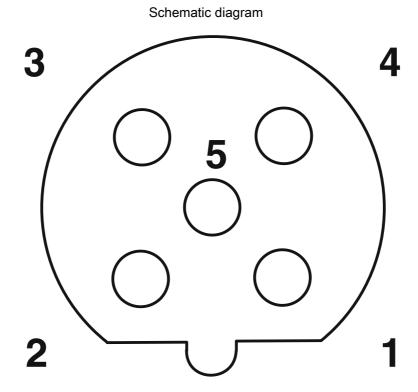


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Drawings





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



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1437452

UL Recognized Approval ID: E221474-20220907					
	Nomina	l voltage U _N Nom	inal current I _N Cro	oss section AWG	Cross section mm ²
	60 V	2 A	- 24	-4	

.71	CUL Recognized Approval ID: E221474-20220907				
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	1.5 A	-	-

71	UL Recognized Approval ID: E118976-20100522				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	4 A	-	-



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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			



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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	9c69762e-b2e0-4124-938f-fbecddc7031e	

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