

Device connector, rear mounting - SACCBP-FSB-2CON-PG9/0,5-910SCO



1437449

<https://www.phoenixcontact.com/pc/products/1437449>

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Device connector, rear mounting, PROFIBUS, 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Socket, straight, M12-SPEEDCON, B-coded, on free cable end, Cable connection, cable length: 0.5 m, PROFIBUS item no.: 1239650

Your advantages

- Pre-assembled 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	1437449
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	ABQCED
Catalog Page	Page 426 (C-2-2019)
GTIN	4046356457576
Weight per Piece (including packing)	53.9 g
Weight per Piece (excluding packing)	53.9 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.

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](https://www.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:

- o On the product
- o On the packing label
- o In the supplied documentation
- o Online at [phoenixcontact.com/products](https://www.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 section of the product at [phoenixcontact.com/products](https://www.phoenixcontact.com/products)

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- 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
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Product properties

Product type	Circular connectors (device side)
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	B - inverse

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Sealing 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

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
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

Connection data

Conductor connection	
Connection method	Cable connection

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Type of contact	Crimp contacts
Tightening torque	2 Nm
	3 Nm

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	B-coded

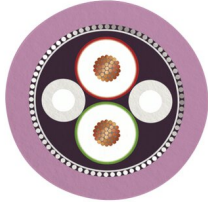
Connection 2

Head design	free cable end
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Cable / line

Cable length	0.5 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
Conductor cross section	2x 0.25 mm² (Signal line)
Wire diameter incl. insulation	2.55 mm ±0.07 mm
External cable diameter	7.8 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foam-Skin PP
Single wire, color	Red, green

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Overall twist	2 cores with 2 fillers to the core
Optical shield covering	85 %
Max. conductor resistance	$\leq 78.6 \Omega/\text{km}$
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Wave impedance	$150 \Omega \pm 10 \%$ (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 V (50 Hz, 1 min.)
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 mm
Max. bending cycles	4000000 5000000
Shield attenuation	$\leq 0.049 \text{ dB/m}$ (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)

Ambient conditions

Degree of protection	IP67 (When plugged in) IP65 (When plugged in)
Degree of protection	IP65/IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket) -40 °C ... 85 °C (without mechanical actuation)

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101
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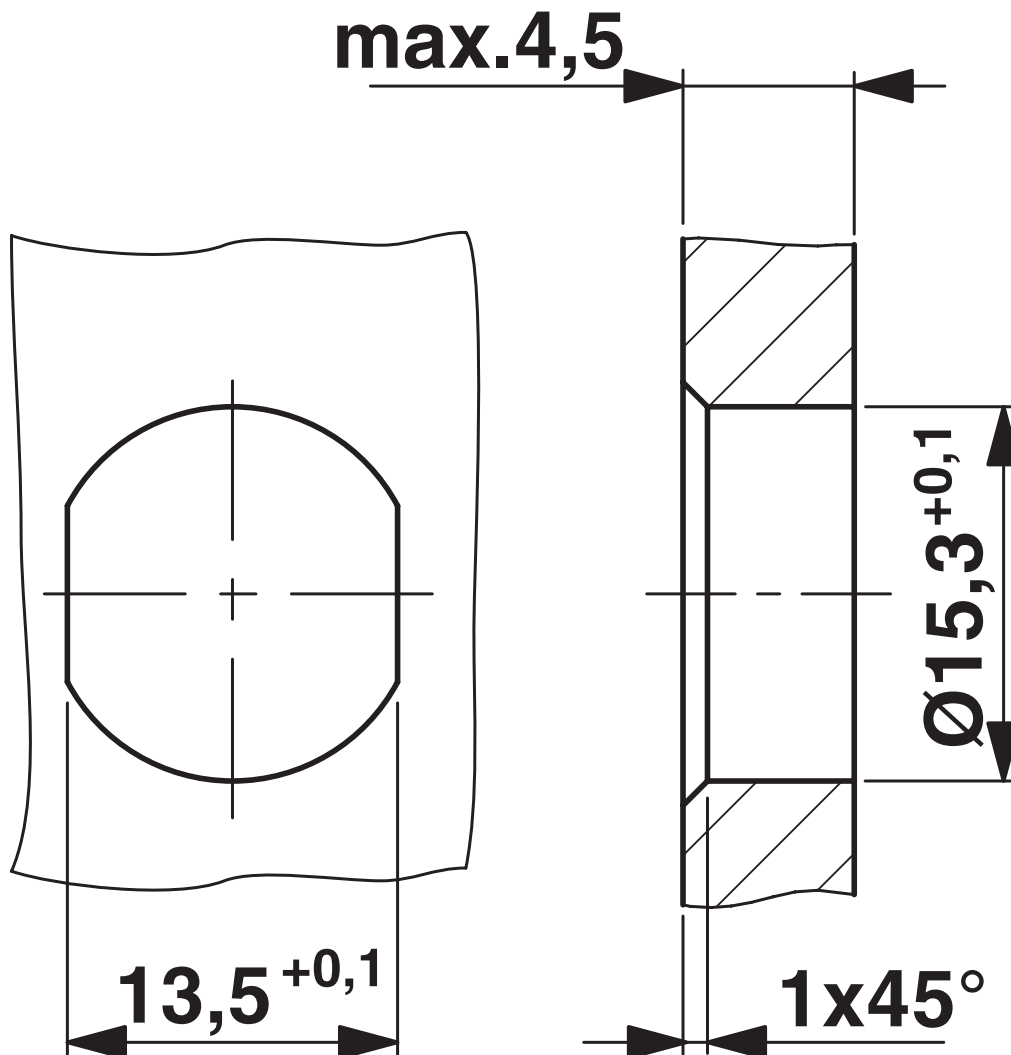
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Drawings

Dimensional drawing



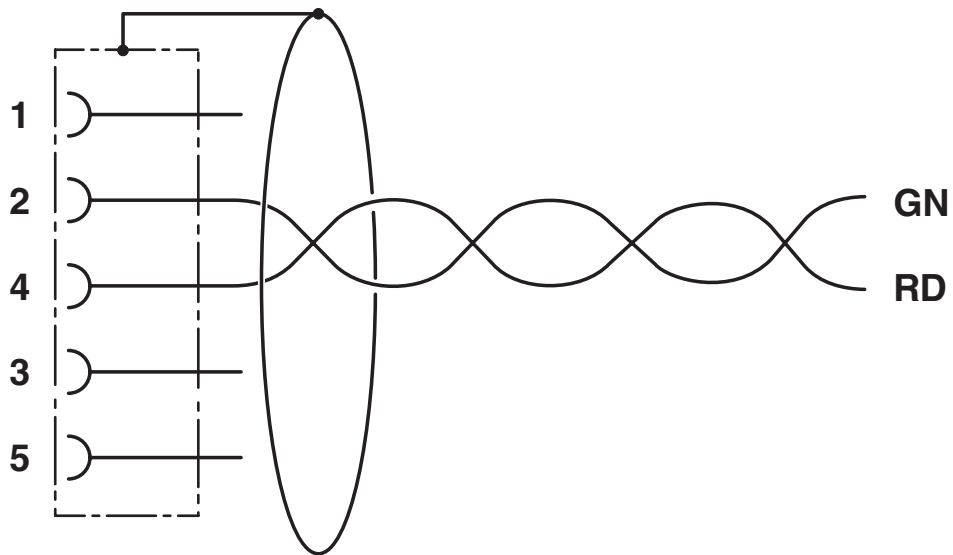
Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

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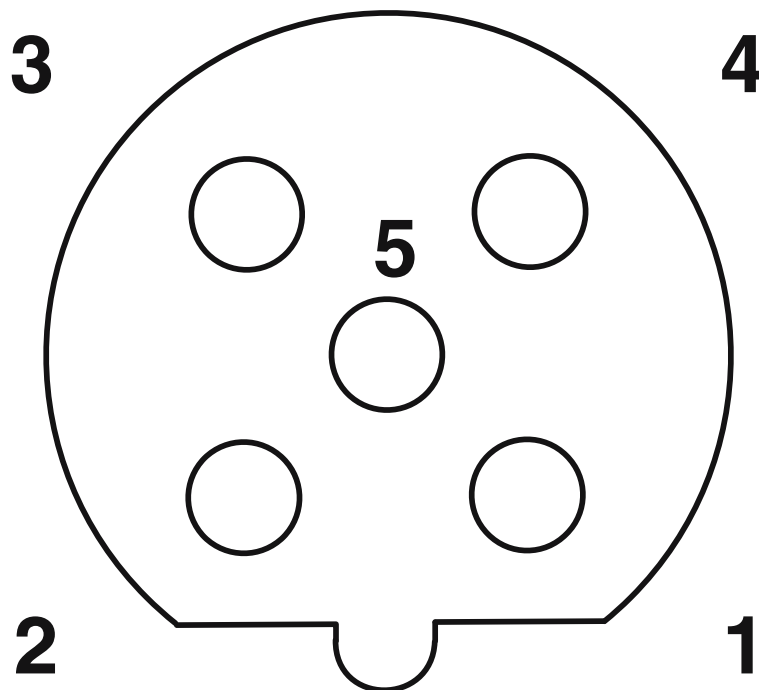
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Circuit diagram



Schematic diagram



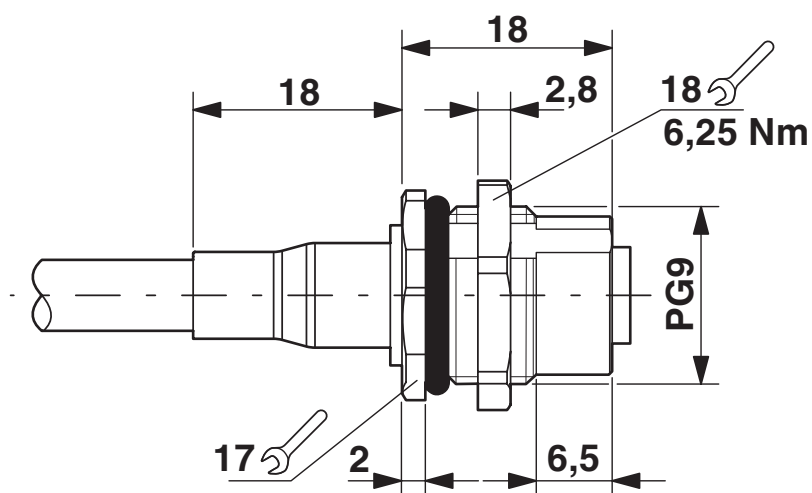
Pin assignment M12 socket, 5-pos., B-coded, female side

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Dimensional drawing



M12 panel feed-through

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Approvals



EAC

Approval ID: B.01687



UL Recognized

Approval ID: FILE E 118976

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	30 V	2 A	- 24	-



cUL Recognized

Approval ID: E221474-20220908

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	1.5 A	-	-



UL Recognized

Approval ID: E221474-20220908

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	2 A	-	-

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Classifications

ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440103

ETIM

ETIM 8.0	EC003570
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UNSPSC

UNSPSC 21.0	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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