

Bus system flat-type plug - SACCBP-MS-4CON-M16/1,0-PUR SCO



1419399

<https://www.phoenixcontact.com/gb/products/1419399>

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Flush-type plug, shielded, 4-pos., M12, A-coded, rear/screw mounting with M16 thread, with 1 m cable, 4 x 0.34 mm²

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
- For high transmission safety: shield connection to the housing with optional EMC nut

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Commercial Data

Order Key	1419399
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	ABQCEC
Product Key	ABQCEC
Catalog Page	Page 51 (C-2-2019)
GTIN	4046356533249
Weight per Piece (including packing)	71 g
Weight per Piece (excluding packing)	60 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).

Product properties

Number of positions	4
Coding	A - standard

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

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)

Connector

Insertion/withdrawal cycles	> 100
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Header 1

Head design	Flush-type male connector
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	A-coded

Header 2

Head design	free cable end
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Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	250 V
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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Material specifications

Flammability rating according to UL 94	V0
Sealing material	NBR
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated

Connection data

Connection technology

Connection method	Individual wires
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Conductor connection

Connection method	Individual wires
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Mounting

Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101
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Cable / line

Fixed cable length	1 m
Shielded	yes
UL AWM Style	20549 / 10493 (80°C/300 V)
Cable weight	36 kg/km

Cable structure

Cable abbreviation	Li9Y-V1-C-V1-11Y
Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
External cable diameter	4.95 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Thickness, outer sheath	approx. 0.5 mm
Conductor material	Bare Cu litz wires
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Material wire insulation	PP
Thickness, insulation	≥ 0.21 mm

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Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
Single wire, color	brown, white, blue, black
Overall twist	4 wires, twisted
Shielding	Tinned copper braided shield
Optical shield covering	80 %

Electrical properties

Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Conductor resistance	max. 58 Ω/km (at 20 °C)
Cable insulation resistance	≥ 100 GΩ*km (at 20 °C)
Wave impedance	≥ 62 Ω (f = 10 MHz)
Cable capacity	≤ 80 pF/m (Conductor-Conductor)
	≤ 135 pF/m (Wire/shield)
Conductor inductance	approx. 0.75 mH/km (f = 1 kHz)

Bending cycles

Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	10000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²

Ambient conditions

Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	Resistant to salt water
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	abrasion-resistant
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	Low adhesion surface
Ambient temperature (operation)	-25 °C ... 80 °C (Cable, flexible installation)
	-40 °C ... 80 °C (cable, fixed installation)

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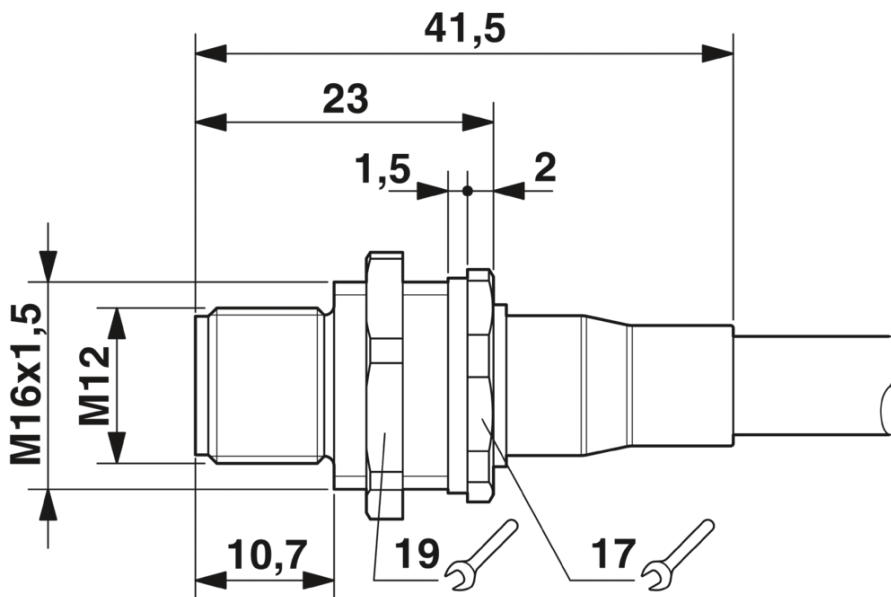


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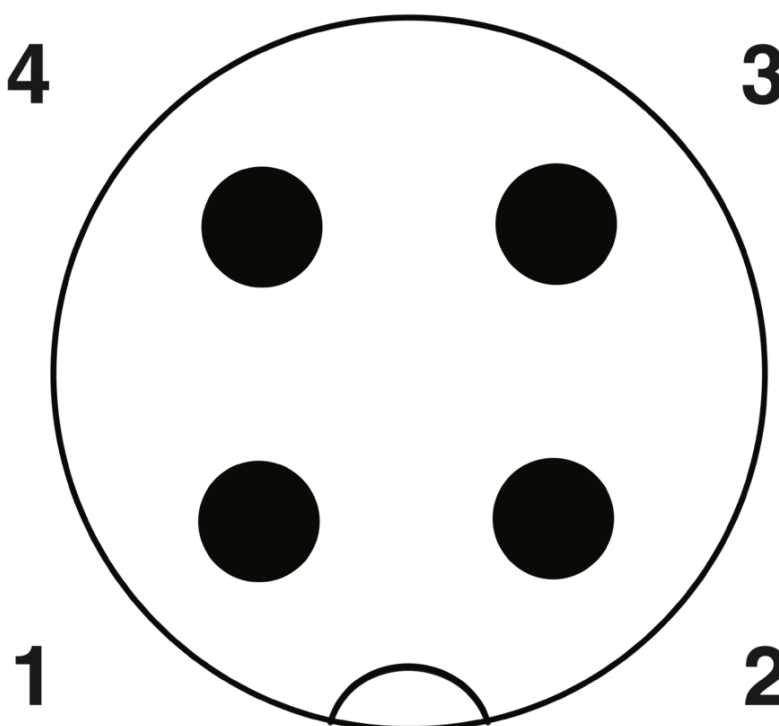
Drawings

Dimensional drawing



M12 flush-type connector

Schematic diagram



Pin assignment of M12 male connector, 4-pos., A-coded, view of connector side

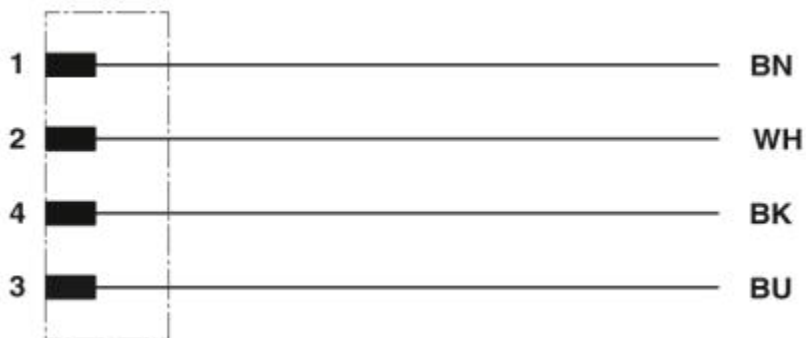
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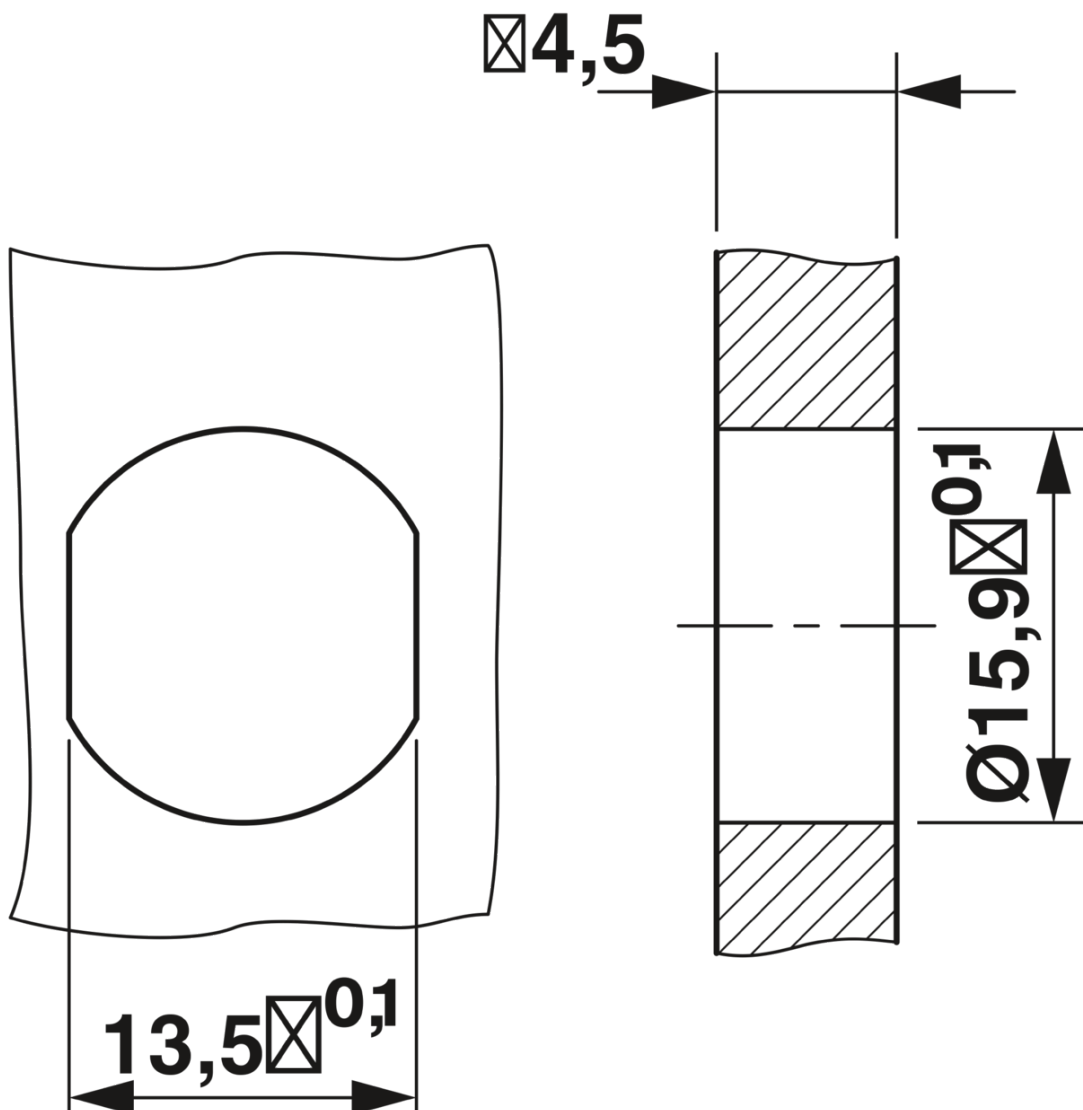
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Circuit diagram



Contact assignment of the M12 plugs

Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

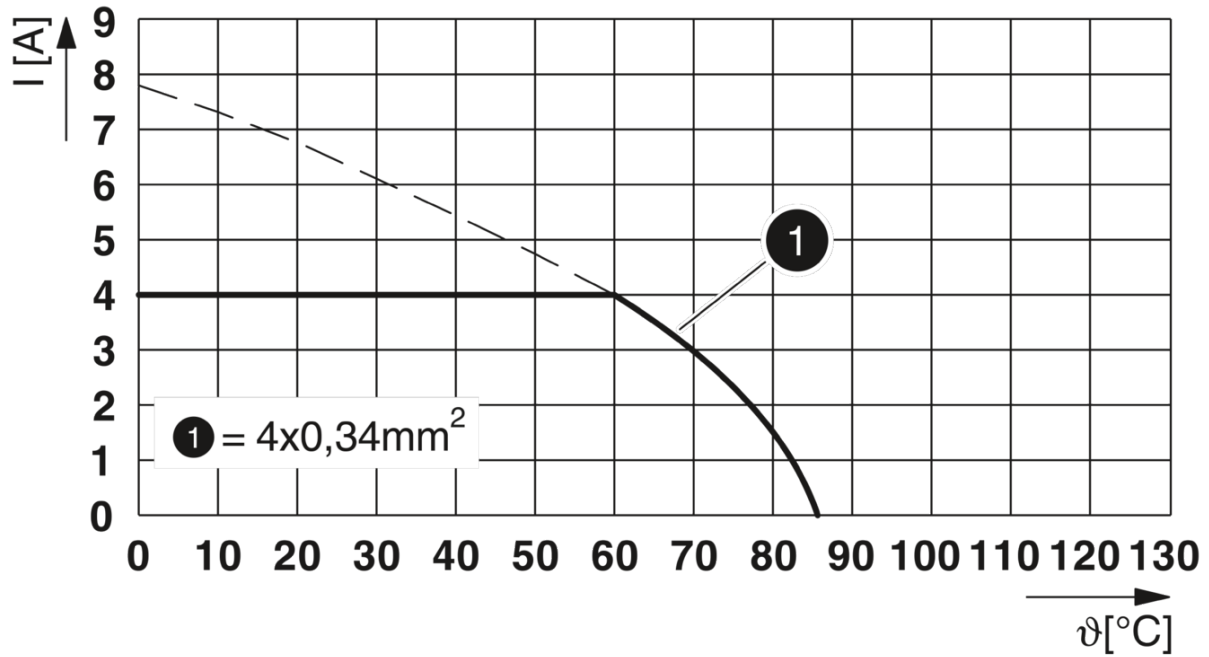
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Diagram



I = current strength, T = ambient temperature

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Approvals

EAC 

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Classifications

ECLASS

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

ETIM

ETIM 6.0	EC002061
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UNSPSC

UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413

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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

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