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Flush-type connector - SACC-SQ-M12MSB-5CON-25F/0,5

1440999

https://www.phoenixcontact.com/gb/products/1440999

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Sensor/actuator flush-type plug, 5-pos., M12, B-coded, front/square flange mounting, with 0.5 m TPE litz wire, 5 x 0.34 mm^2

Your advantages

- Pre-assembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- For high transmission safety: shield connection to the housing with optional EMC nut
- SPEEDCON fast locking system reduces cabling times

Commercial Data

Item number	1440999
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	ABQCDC
Product Key	ABQCDC
Catalog Page	Page 43 (C-2-2019)
GTIN	4046356533850
Weight per Piece (including packing)	26.3 g
Weight per Piece (excluding packing)	26.3 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).
	• 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 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
	• Ensure that the protective or functional ground has been properly connected.

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	• 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

Product type	Circular connectors (device side)
Number of positions	5
Shielded	no
Coding	B - inverse

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Ambient conditions

Degree of protection	IP67
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
	-25 °C ... 85 °C (Cable, flexible installation)
	-40 °C ... 85 °C (cable, fixed installation)

Connector

Insertion/withdrawal cycles	> 100

Header 1

Head thread type	M12

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	60 V
Nominal current I_N	4 A

Material specifications

Flammability rating according to UL 94	V0
Sealing material	FKM
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated

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Connection data

Conductor connection

Connection method	Individual wires

Mounting

Mounting type	Front mounting Square flange

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101

Cable / line

Cable length	0.5 m

Cable structure

Cable type	TPE litz wire
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Single wire, color	Brown, white, blue, black, gray

Electrical properties

Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Conductor resistance	≤ 57.6 mΩ/m
Cable insulation resistance	≥ 20 MΩ*km

Ambient conditions

Ambient temperature (operation)	-25 °C ... 85 °C (Cable, flexible installation)
	-40 °C ... 85 °C (cable, fixed installation)

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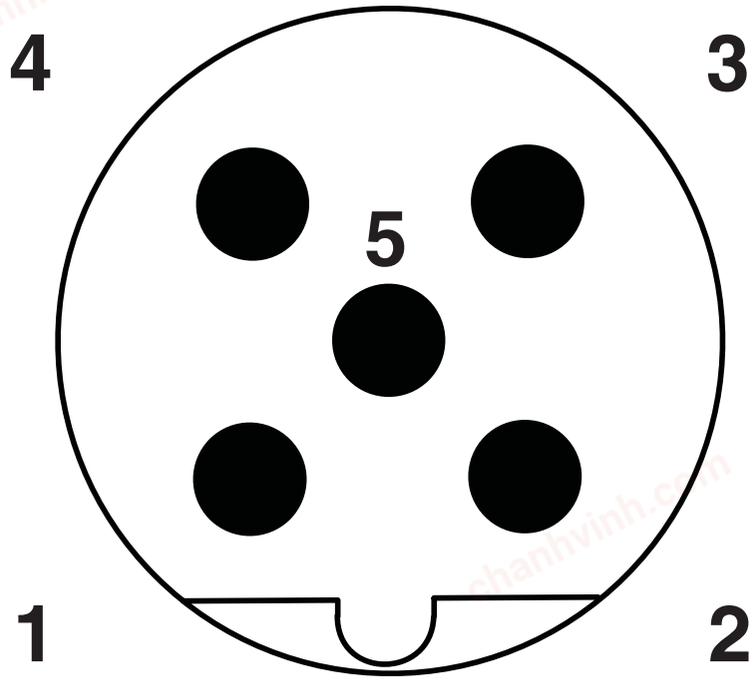
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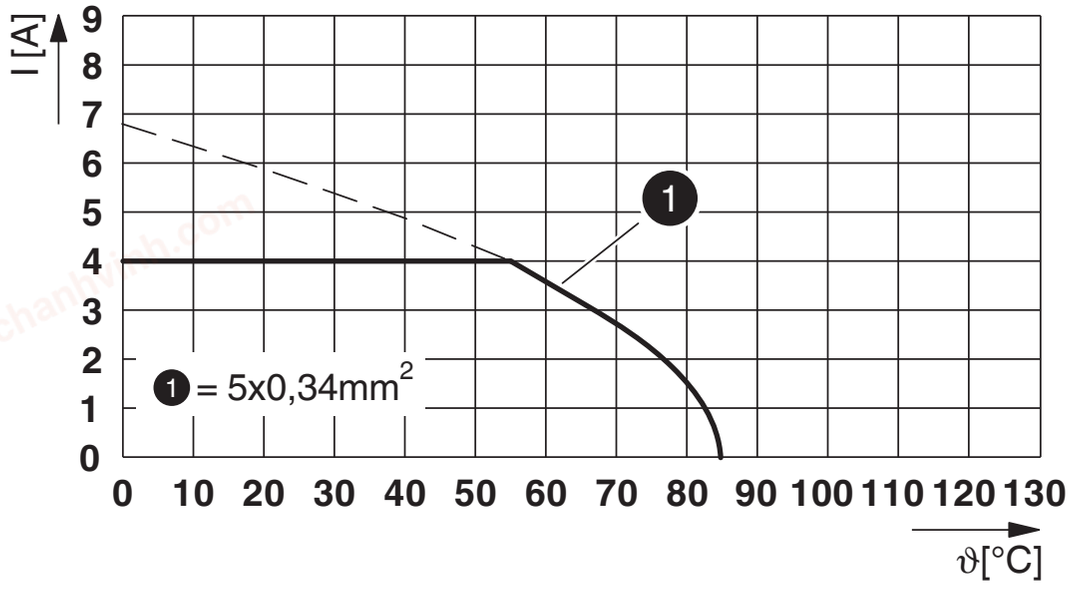
Drawings

Schematic diagram



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

Diagram



I = current strength, T = ambient temperature

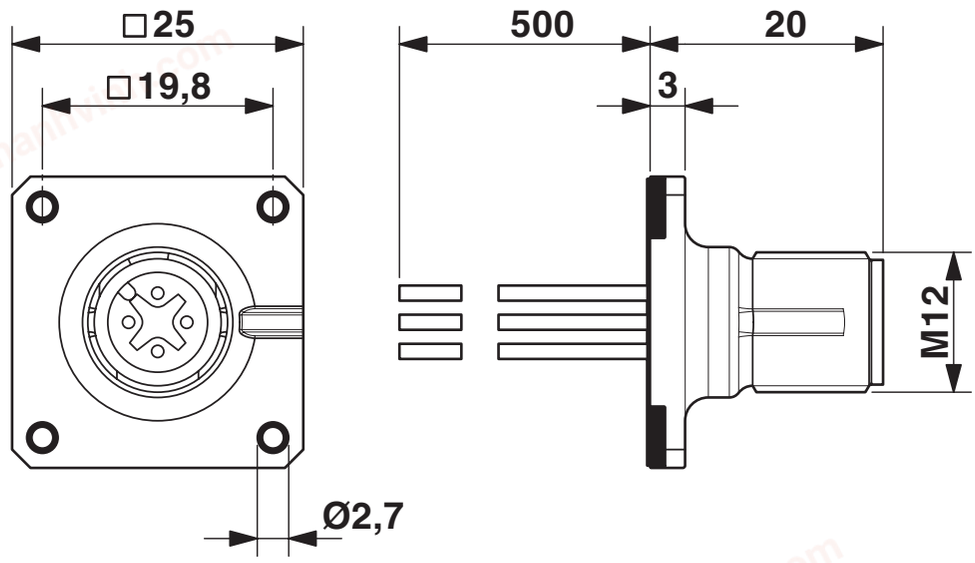
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Dimensional drawing



M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Approvals

cUL Recognized
Approval ID: FILE E 118976

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	4 A	- 22	-

UL Recognized
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	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	4 A	- 22	-

EAC
Approval ID: B.01687

cULus Recognized
Approval ID: E221474-20140616

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	4 A	22 - 20	-

cULus Recognized

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Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002635

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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Accessories

Sealing cap

Sealing cap - PROT-M12 FS - 1560251

https://www.phoenixcontact.com/gb/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

Sealing cap

Sealing cap - PROT-M12 FS-M - 1430488

https://www.phoenixcontact.com/gb/products/1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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