

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Device connector front mounting, Universal, 5-position, Pin, straight, M12, coding: A, on free cable end, Front mounting, M20 x 1,5, Individual wires, cable length: 0.5 m, 0.34 mm², TPE litz wire, potted, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

Your advantages

- Preassembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1408446
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	ABQCEC
Product key	ABQCEC
Catalog page	Page 40 (C-2-2019)
GTIN	4046356828529
Weight per piece (including packing)	46.7 g
Weight per piece (excluding packing)	34.72 g
Customs tariff number	85444290
Country of origin	DE

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

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.
General	Contact connection method: Crimp connection

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.
	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • The products are suitable for applications in plant, controller, and electrical device engineering.
	<ul style="list-style-type: none"> • When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	<ul style="list-style-type: none"> • Assembled products may not be manipulated or improperly opened.
	<ul style="list-style-type: none"> • 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).
	<ul style="list-style-type: none"> • When using the product in direct connection with third-party manufacturers, the user is responsible.
	<ul style="list-style-type: none"> • For operating voltages > 50 V AC, conductive connector housings must be grounded
	<ul style="list-style-type: none"> • Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	<ul style="list-style-type: none"> • Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	<ul style="list-style-type: none"> • Only use tools recommended by Phoenix Contact
	<ul style="list-style-type: none"> • Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

	section of the product at phoenixcontact.com/products
	<ul style="list-style-type: none">• 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	Front mounting M20 x 1,5
---------------	--------------------------

Product properties

Product type	Circular connectors (device side)
Application	Signal
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	NBR
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	CuZn alloy, nickel-plated
Conductor material	Tin-plated Cu litz wires

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
Transmission medium	Copper

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

Max. conductor resistance	57.6 mΩ/m
---------------------------	-----------

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Pin
Conductor cross section	0.34 mm ²
Tightening torque	3 Nm ... 4 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100
-----------------------------	-------

Connector

Connection 1

Head design	Pin
Head cable outlet	straight
Head thread type	M12
Coding	A

Connection 2

Head design	free cable end
-------------	----------------

Cable/line

Cable length	0.5 m
Cable type	TPE litz wire
Signal type/category	Universal
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Single wire, color	brown, white, blue, black, gray
Cable cross section	0.34 mm ²
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
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 57.6 mΩ/m
Cable insulation resistance	≥ 20 MΩ*km
Ambient temperature (operation)	-40 °C ... 85 °C (cable, fixed installation) -25 °C ... 85 °C (Cable, flexible installation)

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
	IP69K
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C ... 85 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 85 °C (cable, fixed installation)

Standards and regulations

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

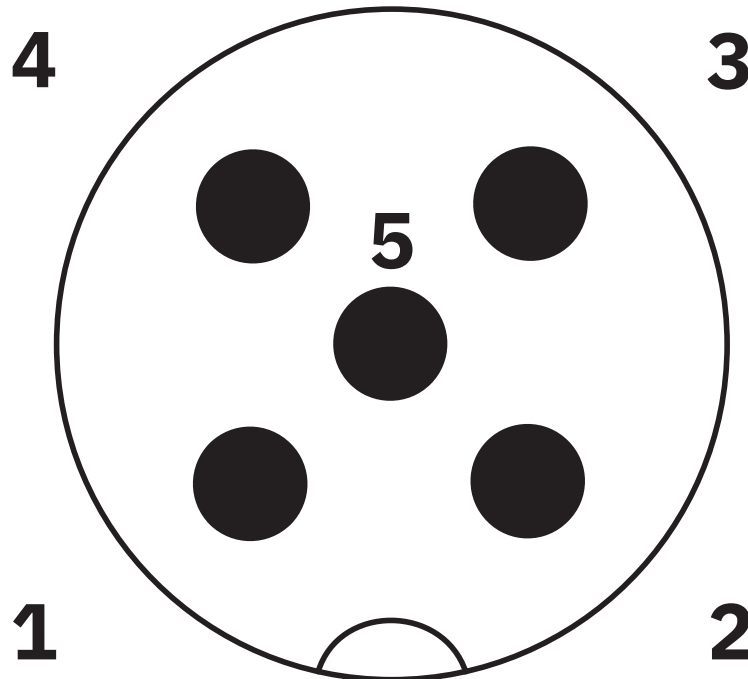
SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting

1408446

<https://www.phoenixcontact.com/au/products/1408446>

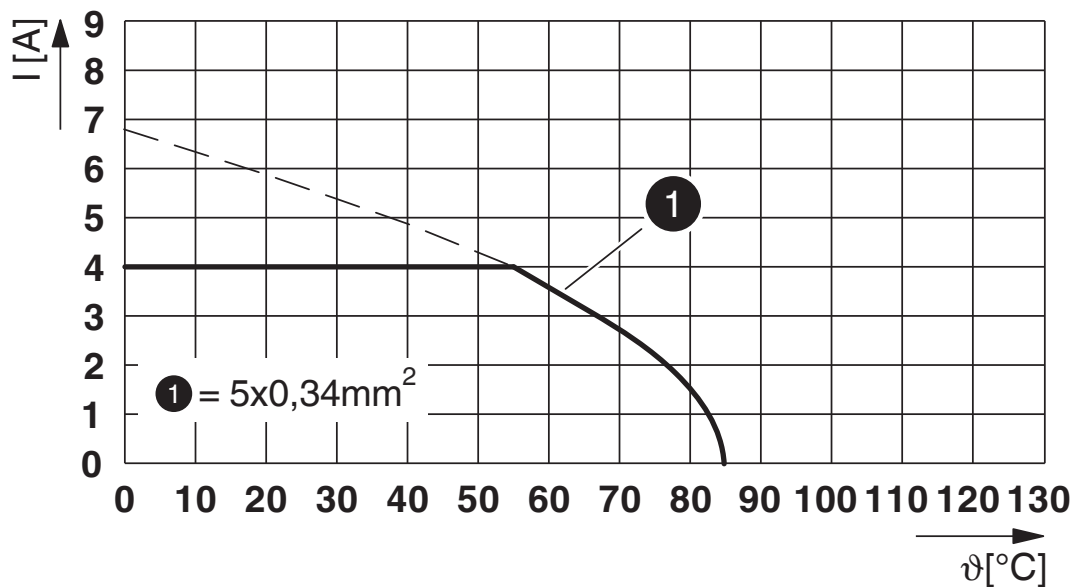
Drawings

Schematic diagram



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

Diagram



I = current strength, T = ambient temperature

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting





1408446


<https://www.phoenixcontact.com/au/products/1408446>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/1408446>

 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	-

 cUL Recognized Approval ID: E118976-20100522				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	60 V	4 A	22	-

 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	22	-

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

Classifications

ECLASS

ECLASS-13.0	27440103
-------------	----------

ETIM

ETIM 9.0	EC003570
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

SACC-E-M12MS-5CON-M20/0,5 - Device connector front mounting



1408446

<https://www.phoenixcontact.com/au/products/1408446>

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	e3939b9e-adb7-4c9a-811b-de742c53611f

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd
Unit 7, 2-8 South Street
Rydalmere NSW 2116
1300 786 411
customerservice@phoenixcontact.com.au