

SACC-SQ-M12MS-4CON-20-L180 - Device connector
front mounting

1456417
<https://www.phoenixcontact.com/us/products/1456417>

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Device connector front mounting, Universal, 4-position, Pin, straight, M12-SPEEDCON, A-coding, Wave soldering, 0.34 mm², 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

- Easy PCB assembly: one-piece connectors for wave soldering
- Standard pin assignments for signal and power transmission with a uniform design-in design
- SPEEDCON fast locking system reduces cabling times

Commercial data

Item number	1456417
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	AB26
Product key	ABQEGK
GTIN	4046356617024
Weight per piece (including packing)	11.57 g
Weight per piece (excluding packing)	8.08 g
Customs tariff number	85366990
Country of origin	DE

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1456417

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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.
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Mounting

Mounting type	Front mounting/square flange (20 mm side length)
Tightening torque	Installation-side

Product properties

Product type	Circular connectors (device side)
Sensor type	Universal
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	250 V
Nominal current I_N	4 A
Max. conductor resistance	57.6 m Ω /m

Connection data

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1456417

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Conductor connection

Connection method	Wave soldering
Contact connection type	Pin
Conductor cross section	0.34 mm ²
Tightening torque	Installation-side

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100
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Connector

Connection 1

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

Cable/line

Signal type/category	Universal
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Cable cross section	0.34 mm ²
Conductor structure signal line	7x 0.25 mm
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)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
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)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

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

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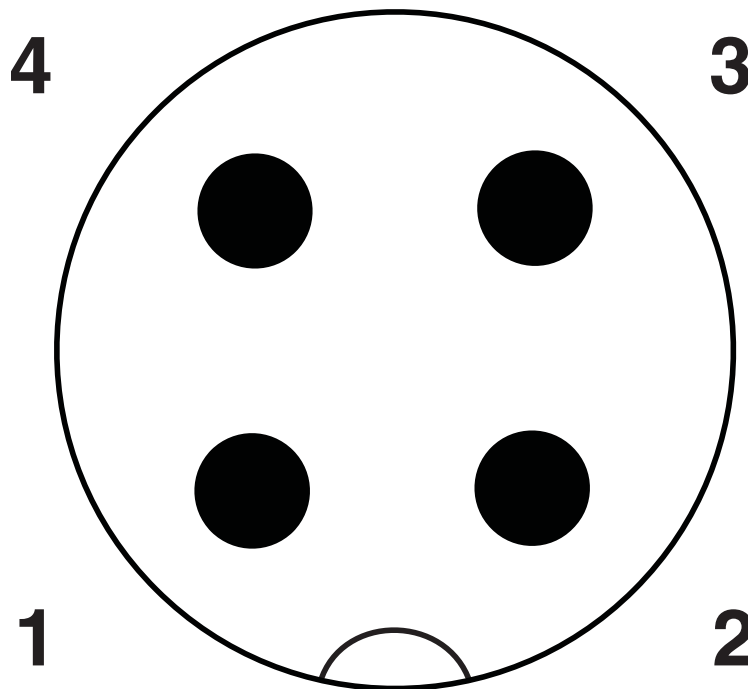


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Drawings

Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

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1456417

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Approvals

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	cUL Recognized			
	Approval ID: E118976-20100522			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 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
	250 V	4 A	22	-

	cULus Recognized			
	Approval ID: E221474-20140616			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	4 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27440110
ECLASS-15.0	27440110

ETIM

ETIM 9.0	EC003568
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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	48c21c53-4f78-43e9-a303-5e131950bdab

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