

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



1456417

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

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Device connector front mounting, Universal, 4-position, Pin, straight, M12, coding: A, Front mounting, Square flange, Wave soldering, 0.34 mm<sup>2</sup>

## 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	ABQ
Product key	ABQEGK
Catalog page	Page 240 (C-2-2013)
GTIN	4046356617024
Weight per piece (including packing)	11.57 g
Weight per piece (excluding packing)	10.64 g
Customs tariff number	85366990
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.
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### Mounting

Mounting type	Front mounting Square flange 20 mm side length
Assembly note	20 mm side length

### 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 $\Omega$ /m

### Connection data

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## Conductor connection

Connection method	Wave soldering
Contact connection type	Pin
Conductor cross section	0.34 mm <sup>2</sup>
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
Coding	A

## Cable/line

Signal type/category	Universal
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Cable cross section	0.34 mm <sup>2</sup>
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
	IP20
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)
UL Type Rating	Type 4 (indoor use only)

## Standards and regulations

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## M12

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

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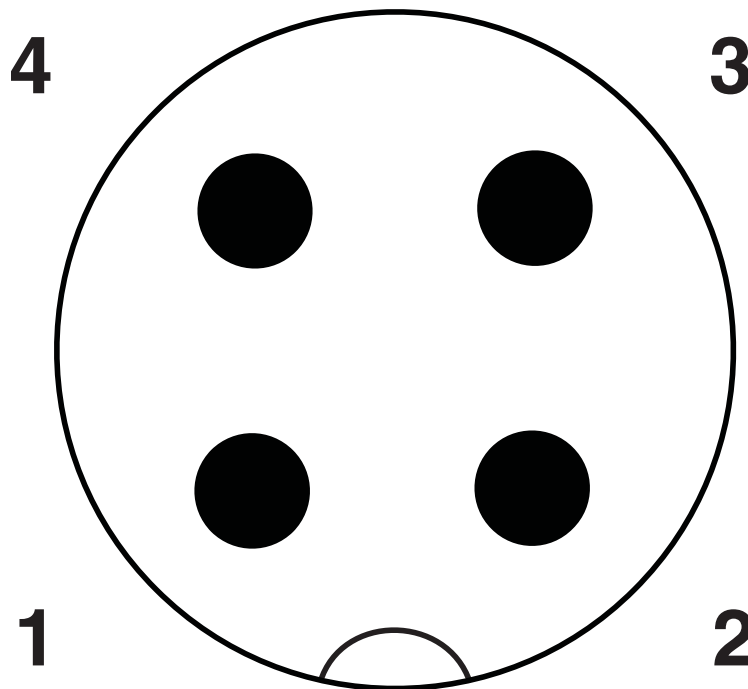


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## Drawings

Schematic diagram



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

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## Approvals

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 <b>cUL Recognized</b> Approval ID: E118976-20100522				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	4 A	22	-

 <b>UL Recognized</b> Approval ID: E118976-20100522				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	4 A	22	-

 <b>cULus Recognized</b> Approval ID: E221474-20140616				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	4 A	-	-

<b>cULus Recognized</b>				
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## Classifications

### ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

### ETIM

ETIM 9.0	EC002635
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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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## Accessories

### PROT-M12 FS - Sealing cap

1560251

<https://www.phoenixcontact.com/in/products/1560251>



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

### PROT-M12 FS-M - Sealing cap

1430488

<https://www.phoenixcontact.com/in/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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