

SACC-SQ-M12FS-4CON-20-L180 - Device connector front mounting



1456420

<https://www.phoenixcontact.com/us/products/1456420>

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Device connector front mounting, Universal, 4-position, Socket, straight, M12-SPEEDCON, A-coding, Wave soldering, 0.34 mm², this item is expected to be lead-free from Q2 2026 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	1456420
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	AB26
Product key	ABQEHK
GTIN	4046356617031
Weight per piece (including packing)	12.73 g
Weight per piece (excluding packing)	9.709 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)
Tightening torque	3 Nm ... 4 Nm (Installation-side)

Product properties

Product type	Circular connectors (device side)
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

Material Housing	GD-Zn
Material Housing surface	Ni
Material Contact carrier	PA 6.6
Material Contact	CuZn
Material Contact surface	Au
Material Seal	FKM
Flammability rating according to UL 94	V0

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
Max. conductor resistance	57.6 mΩ/m

Connection data

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Conductor connection

Connection method	Wave soldering
Contact connection type	Socket
Conductor cross-section	0.34 mm ²
Tightening torque	3 Nm ... 4 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100
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Connector

Connection 1

Head design	Socket
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

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C -40 °C ... 85 °C (without mechanical actuation)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

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

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Drawings

Schematic diagram



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

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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
keine				
	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
keine				
	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
keine				
	250 V	4 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27440110
ECLASS-15.0	27440110

ETIM

ETIM 10.0	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, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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