

# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting



1456446

<https://www.phoenixcontact.com/us/products/1456446>

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.



## 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	1456446
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	AB26
Product key	ABQEHK
GTIN	4046356617055
Weight per piece (including packing)	13.13 g
Weight per piece (excluding packing)	9.879 g
Customs tariff number	85366990
Country of origin	DE



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting



1456446

<https://www.phoenixcontact.com/us/products/1456446>

## 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.
--------------------	--

### 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)
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

Material Housing	GD-Zn
Material Housing surface	Ni
Material Insulating body	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	1.5 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	60 V
Nominal current $I_N$	4 A
Max. conductor resistance	57.6 m $\Omega$ /m



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting



1456446

<https://www.phoenixcontact.com/us/products/1456446>

## Connection data

### Conductor connection

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

## Mechanical properties

### Mechanical data

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

## 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 <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

## 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)
UL Type Rating	Type 4 (indoor use only)

## Standards and regulations

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



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting

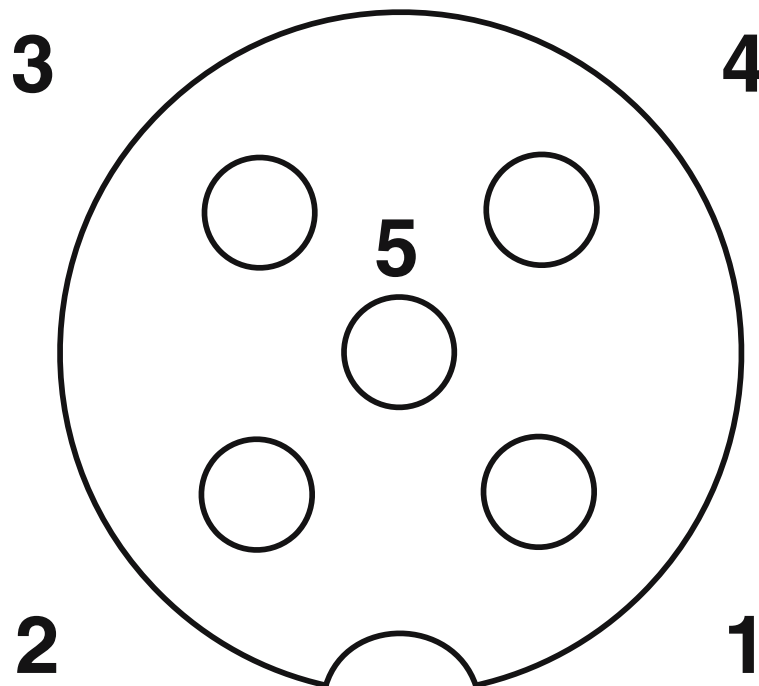


1456446

<https://www.phoenixcontact.com/us/products/1456446>

## Drawings

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting





1456446


<https://www.phoenixcontact.com/us/products/1456446>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1456446>

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



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting



1456446

<https://www.phoenixcontact.com/us/products/1456446>

## Classifications

### ECLASS

ECLASS-13.0	27440110
ECLASS-15.0	27440110

### ETIM

ETIM 9.0	EC003568
----------	----------

### UNSPSC

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



# SACC-SQ-M12FS-5CON-20-L180 - Device connector front mounting



1456446

<https://www.phoenixcontact.com/us/products/1456446>

## 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	83c01728-5bc1-443e-9067-ef78d4e0d1ca

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

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)