

# SACCBP-M12MS-6CON-M16/0,5-970 - Device connector rear mounting



1429059

<https://www.phoenixcontact.com/us/products/1429059>

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Device connector rear mounting, 6-position, SANTOPRENE halogen-free, black RAL 9005, shielded, Pin, straight, M12-SPEEDCON, A-coding, on free cable end, Cable connection, cable length: 0.5 m, 0.25 mm<sup>2</sup>, 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

- Preassembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut

## Commercial data

Item number	1429059
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGA
GTIN	4046356323017
Weight per piece (including packing)	75.9 g
Weight per piece (excluding packing)	60.184 g
Customs tariff number	85444290
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.
Order information:	Lock nut is included in the scope of delivery

### Mounting

Mounting type	Rear mounting (M16 x 1.5, with flat nut)
Tightening torque	2 Nm ... 3 Nm (Installation-side)

### Product properties

Product type	Circular connectors (device side)
Application	Data
Number of positions	6
No. of cable outlets	1
Shielded	yes
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 Insulating body	PA 6.6
Material Contact	CuZn
Material Contact surface	Ni/Au
Material Seal	FKM
Flammability rating according to UL 94	V0
Material for screw connection	Brass, nickel-plated
Outer sheath, material	SANTOPRENE halogen-free

### Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V

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Nominal current $I_N$	2 A
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## Connection data

### Conductor connection

Connection method	Cable connection
Contact connection type	Pin
Conductor cross-section	0.25 mm <sup>2</sup>
Tightening torque	2 Nm ... 3 Nm (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


### Connection 2

Head design	free cable end
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## Cable/line

Cable length	0.5 m
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### VARAN [970]

Dimensional drawing	
Cable weight	81 kg/km
Number of positions	6
Shielded	yes
Cable type	VARAN [970]
Conductor structure	1x2xAWG22/19 + 1x4xAWG24/19
Conductor structure signal line	19x 0.13 mm

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AWG signal line	24
Conductor structure, voltage supply	19x 0.16 mm
AWG power supply	22
Conductor cross section	4x 0.25 mm <sup>2</sup> (Signal line)
	2x 0.38 mm <sup>2</sup> (Power supply)
Wire diameter incl. insulation	1.35 mm (Signal line)
	1.5 mm (Power supply)
External cable diameter	7.80 mm ±0.2 mm
Outer sheath, material	SANTOPRENE halogen-free
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material, filler	Yarn
Material wire insulation	PP
Single wire, color	brown, blue, white/orange, white/green, green, orange
Type of pair shielding	Tinned copper braided shield, 95 % covering
Overall twist	1 star quad and 2 wires with 2 fillers
Max. conductor resistance	77 Ω/m (Data cable)
Insulation resistance	5 GΩ*km (Data cable)
Wave impedance	100 Ω ±15 %
Working capacitance	50 nF (Data cable)
Nominal voltage, cable	125 V (Data cable)
	48 V (Power supply)
Test voltage	2000 V (Power supply)
	max. 700 V AC (Data cable)
Smallest bending radius, fixed installation	≥ 93 mm
Smallest bending radius, movable installation	≥ 93 mm
Dynamic load capacity (bending)	Max. bending cycles: 3000000, Bending radius: 93 mm, Traversing path: 2 m, Traversing rate: 1 m/s, Acceleration: 2 m/s <sup>2</sup>
Halogen-free	in accordance with DIN EN 50267-2-1
Ambient temperature (operation)	-20 °C ... 80 °C (Cable)
Ambient temperature (installation)	0 °C ... 50 °C

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
	IP65/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)
UL Type Rating	Type 4 (indoor use only)

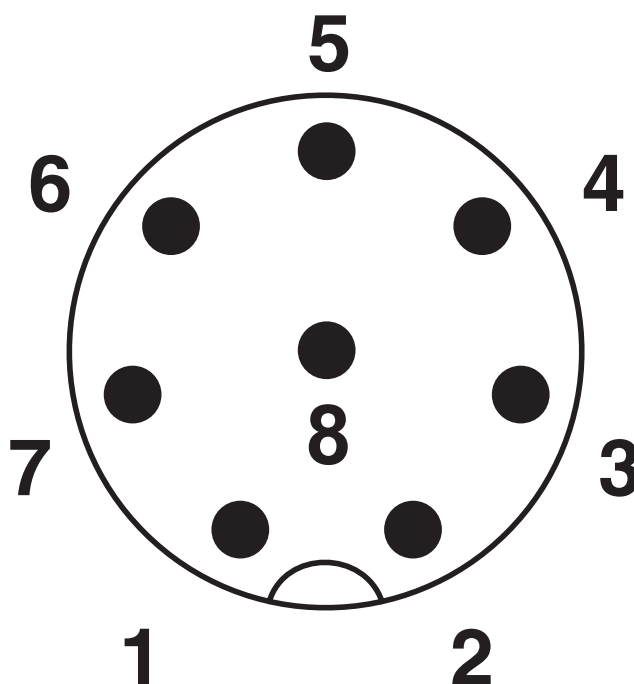
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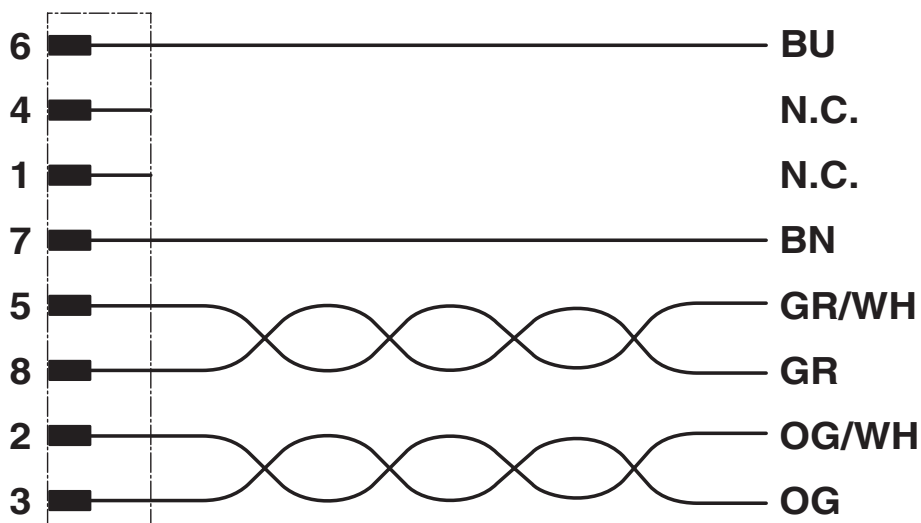
## Drawings

Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Circuit diagram



Contact assignment of the M12 plug


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## Approvals

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 <b>cUL Recognized</b> Approval ID: E221474-20220907				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	30 V	1.5 A	-	-

 <b>UL Recognized</b> Approval ID: E221474-20220907				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	30 V	2 A	-	-

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## Classifications

### ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27440103

### ETIM

ETIM 9.0	EC003570
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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	120410ed-47b3-4432-906e-6958e433a603

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