

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 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

- 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	ABQDG
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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1429059

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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

Ovvoltage 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	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	30 V

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



1429059

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

Nominal current I_N

2 A

Connection data

Conductor connection

Connection method	Cable connection
Contact connection type	Pin
Conductor cross-section	0.25 mm ²
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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1429059

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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 ² (Signal line) 2x 0.38 mm ² (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 ²
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)

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

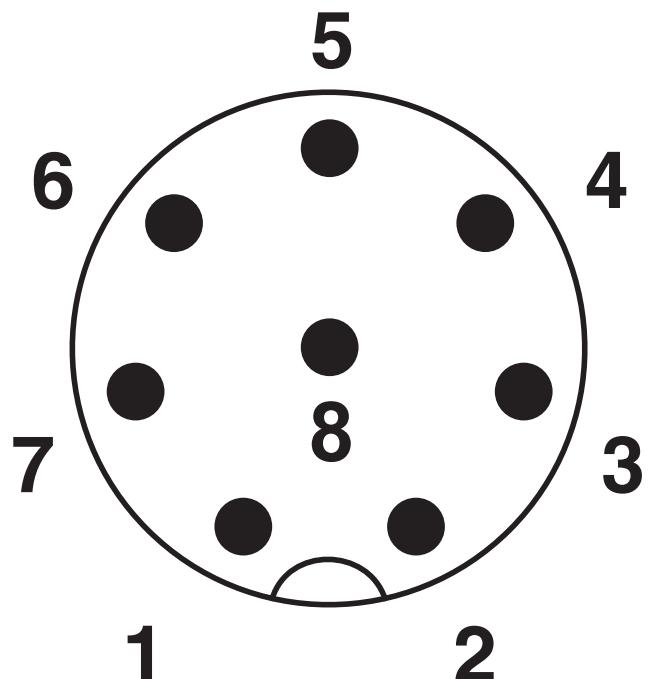


1429059

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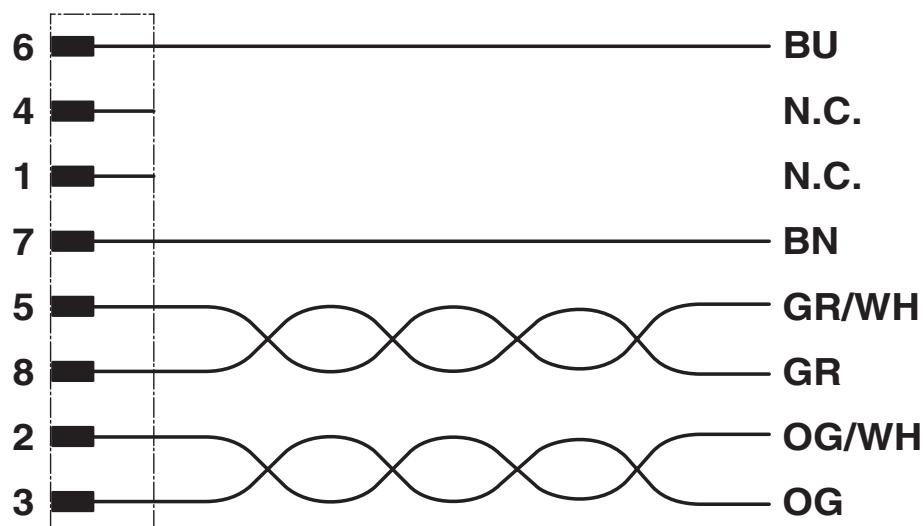
Drawings

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

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



1429059

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Approvals

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cUL Recognized		Approval ID: E221474-20220907		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		30 V	1.5 A	-
				-

UL Recognized		Approval ID: E221474-20220907		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		30 V	2 A	-
				-

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1429059

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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.
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EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	120410ed-47b3-4432-906e-6958e433a603

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