SACCBP-MS-12CON-M16/1,0-PVCSCO - Device connector rear mounting

1442227

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Device connector rear mounting, Universal, 12-position, PVC/PVC, black RAL 9005, shielded, Pin, straight, M12-SPEEDCON, A-coding, on free cable end, Cable connection, cable length: 1 m, 0.14 mm^2, PVC black, this item is expected to be lead-free from Q1 2027 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
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1442227
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGA
GTIN	4046356533362
Weight per piece (including packing)	94 g
Weight per piece (excluding packing)	86.628 g
Customs tariff number	85444290
Country of origin	DE

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

Safety note

Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	• The products are suitable for applications in plant, controller, and electrical device engineering.
	• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	• Assembled products may not be manipulated or improperly opened.
	• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	• When using the product in direct connection with third-party manufacturers, the user is responsible.
	• For operating voltages > 50 V AC, conductive connector housings must be grounded
	• Ensure that the protective or functional ground has been properly connected.
	• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	• Only use tools recommended by Phoenix Contact
	• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	• Operate the connector only when it is fully plugged in and interlocked.
	• Ensure that when laying the cable, the tensile load on the

	connectors does not exceed the upper limit specified in the standards.
	• Observe the minimum bending radius of the cable. Lay the cable without twisting it.
	• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Product properties

Product type	Signal and power cable
Number of positions	12
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

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)
Resistance to oil	in accordance with DIN EN 60811-404
UL Type Rating	Type 4 (indoor use only)

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

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	30 V
Nominal current I_N	1.5 A
Max. conductor resistance	142 Ω/km

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
Outer sheath, material	PVC
Conductor material	Tin-plated Cu litz wires

Connection data

Connection method	Cable connection
Tightening torque	3 ... 4 Nm

Mounting

Mounting type	Rear mounting (M16 x 1.5, with flat nut)

Standards and regulations

Flame resistance	IEC 60332-1-2, IEC 60332-1, FT1, VW-1
Resistance to oil	in accordance with DIN EN 60811-404
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

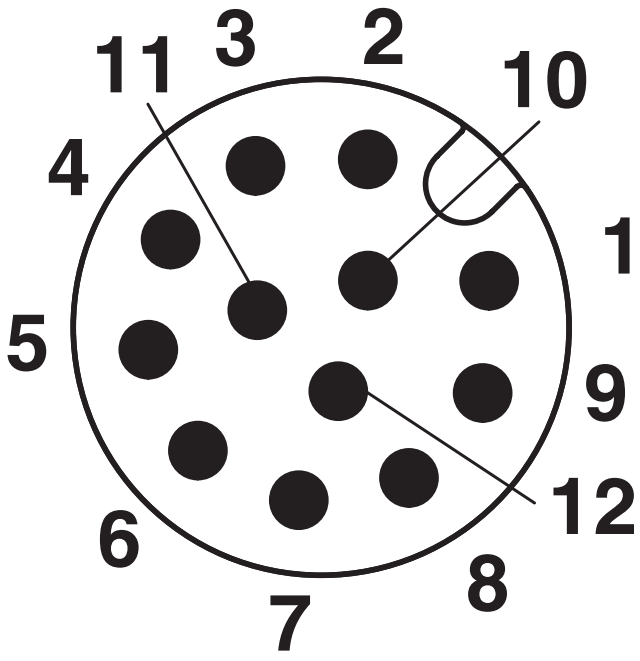
Cable/line

Cable length	1 m
Cable type	PVC black
External cable diameter	7.00 mm ±0.03 mm
Outer sheath, material	PVC
External sheath, color	black RAL 9005
Wire diameter incl. insulation	1 mm ±0.05 mm
Single wire, color	white-brown, green-yellow, gray-pink, blue-red, black-violet, gray/pink-red/blue
Cable cross section	6x 2x 0.14 mm²
Material, inner sheath	PVC

Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	18x 0.10 mm
Material wire insulation	PVC
Thickness, insulation	0.21 mm
Overall twist	Six pairs around the filler to the core
Shielding	Tinned copper braided shield
Optical shield covering	85 %
Nominal voltage, cable	300 V
Test voltage, cable	1500 V AC
Cable resistance	142 Ω/km (at 20 °C)
Smallest bending radius, fixed installation	42 mm
Smallest bending radius, movable installation	105 mm
Resistance to oil	in accordance with DIN EN 60811-404
Flame resistance	IEC 60332-1-2, IEC 60332-1, FT1, VW-1
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Ambient temperature (operation)	-40 °C ... 85 °C (cable, fixed installation)
	-25 °C ... 85 °C (Cable, flexible installation)

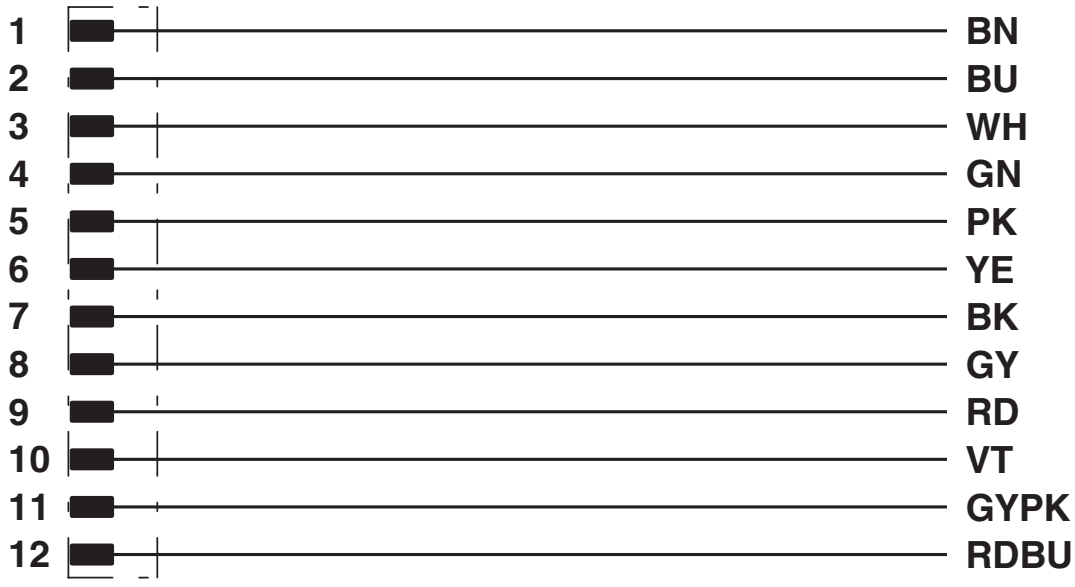
Drawings

Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view

Circuit diagram



Contact assignment of the M12 plugs

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1442227

cUL Recognized
Approval ID: E221474-20220907

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	1.5 A	26	-

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Classifications

ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27060311

ETIM

ETIM 10.0	EC001855

UNSPSC

UNSPSC 21.0	39121400

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	7e084031-ee91-4085-a10d-51428f877a5d

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