

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

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.



Sensor/actuator cable, 3-position, PVC, black RAL 9005, Plug straight M12 SPEEDCON, coding: A, with 1 LED, on Valve connector BI (11 mm), with 1 LED, cable length: 0.3 m

As shown in the illustration but with a black handle

Commercial data

Item number	1416163
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF19
Product key	AF1DMA
GTIN	4055626064116
Weight per piece (including packing)	41.7 g
Weight per piece (excluding packing)	41 g
Customs tariff number	85444290
Country of origin	PL

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

Technical data

Product properties

Product type	Sensor/actuator cable with valve connector
Number of positions	3
No. of cable outlets	1
Coding	A

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	TPU
Material housing valve plug	TPU
Material of grip body	TPU
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Contact material	CuSn
Valve plug contact insert material	PA 6.6
Contact surface material	Sn
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	24 V AC
	24 V DC
Nominal current I_N	4 A

Signaling

Status display	1 LED
Status display present	yes

Connector

Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	3
Locking type	SPEEDCON
Coding type	A

Connection 2

Type	Valve connector BI (11 mm)
------	----------------------------

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

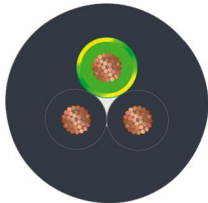
<https://www.phoenixcontact.com/us/products/1416163>

Number of positions	3
Material	CuSn (Contact)
	Sn (Contact surface)
	PA 6.6 (Contact carrier)
	TPU (Housing)

Cable/line

Cable length	0.3 m
--------------	-------

PVC black [PVC]

Dimensional drawing	
Cable weight	38.6 kg/km
UL AWM Style	2464
Number of positions	3
Shielded	no
Cable type	PVC black [PVC]
Conductor structure signal line	16x 0.20 mm
AWG signal line	20
Conductor cross-section	3x 0.5 mm ²
Wire diameter incl. insulation	1.5 mm ±0.05 mm
External cable diameter	4.80 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
Max. conductor resistance	39 Ω/km (at 20 °C)
Insulation resistance	≥ 20 MΩ*km
Nominal voltage, cable	300 V
Test voltage	1200 V
Minimum bending radius, fixed installation	5 x D
Smallest bending radius, fixed installation	24 mm
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

	-5 °C ... 80 °C (Cable, flexible installation)
--	--

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

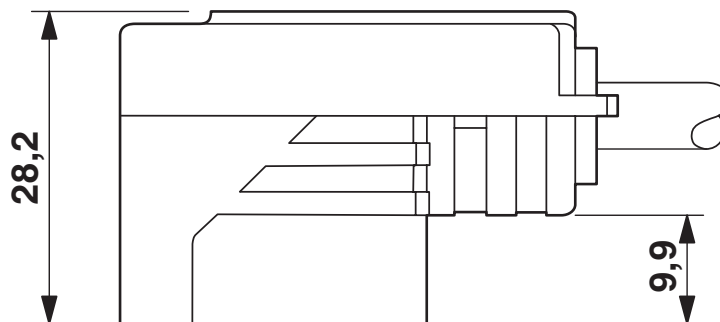
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Valve connector, type BI, side view

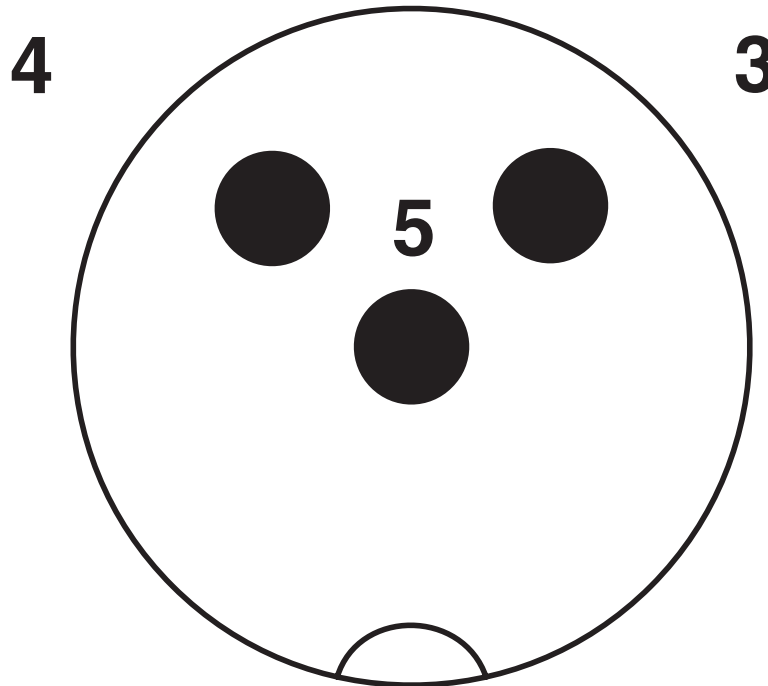
SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

Schematic diagram



Pin assignment M12 plug, 3-pos., valve connector

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable




1416163

<https://www.phoenixcontact.com/us/products/1416163>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1416163>

 CSAus Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	24 V	4 A	-	-

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

Classifications

ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

ETIM

ETIM 10.0	EC001855
-----------	----------

UNSPSC

UNSPSC 21.0	31251500
-------------	----------

SAC-MS/0,3-PVC/BI-1L BK SCO180 - Sensor/actuator cable



1416163

<https://www.phoenixcontact.com/us/products/1416163>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - 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