

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

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, 8-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 5 m

As illustrated but with VA
knurl

Commercial data

Item number	1415009
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CFA
GTIN	4055626037400
Weight per piece (including packing)	241.6 g
Weight per piece (excluding packing)	246.8 g
Customs tariff number	85444290
Country of origin	PL

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Stainless steel
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	30 V AC
	30 V DC
Nominal current I_N	2 A
Max. conductor resistance	78 Ω/km

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	------------

Signaling

Status display	no
Status display present	no

Connector

Connection 1

Type	Plug straight M12
Number of positions	8

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable

1415009

<https://www.phoenixcontact.com/us/products/1415009>

Coding type	A
-------------	---


Connection 2

Type	Socket straight M12
Number of positions	8
Coding type	A

Cable/line

Cable length	5 m
--------------	-----

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	46 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	8
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross-section	8x 0.25 mm ² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	5.90 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material, filler	PE
Material wire insulation	PP
Single wire, color	white, brown, green, yellow, gray, pink, blue, red
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.80 mm
Overall twist	8 wires around filler to the core
Max. conductor resistance	≤ 78 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Wave impedance	100 Ω +15 % (with 1 MHz)
Cable capacity	≤ 70 pF/m
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	8 x D

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	48 mm
Smallest bending radius, movable installation	59 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 59 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥5000000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2
	According to DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
	Low adhesion
Special properties	abrasion-resistant
	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	flexible
	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

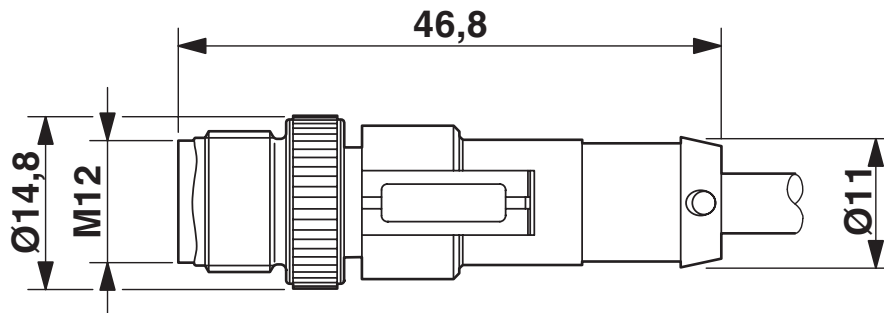
SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable

1415009

<https://www.phoenixcontact.com/us/products/1415009>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable

1415009

<https://www.phoenixcontact.com/us/products/1415009>

Schematic diagram



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

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

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

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-8P-M12MS/5,0-PUR/M12FS VA - Sensor/actuator cable



1415009

<https://www.phoenixcontact.com/us/products/1415009>

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

EF3.1 Climate Change

CO2e kg	3.059 kg CO2e
---------	---------------

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