

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

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, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M8, cable length: 2 m

Commercial data

Item number	1531015
Packing unit	5 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	AF1CBA
GTIN	4017918990510
Weight per piece (including packing)	66.7 g
Weight per piece (excluding packing)	64.022 g
Country of origin	DE

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	3
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	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Max. conductor resistance	78 Ω/km

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
Max. bending cycles	4000000

Signaling

Status display	no
Status display present	no

Connector

Connection 1

Type	Plug straight M12
------	-------------------

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

Number of positions	3
Coding type	A

Connection 2

Type	Socket straight M8
Number of positions	3

Cable/line

Cable length	2 m
--------------	-----

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	23 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross-section	4x 0.25 mm ² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm (Signal line)
External cable diameter	3.95 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.50 mm (Outer cable sheath)
Overall twist	4 wires, twisted
Max. conductor resistance	max. 78 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	40 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 44 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 5

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

	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 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)
Special properties	Flexible cable conduit capable Silicone-free Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-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
	IP67
	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-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Socket M8 x 1, straight

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable

1531015

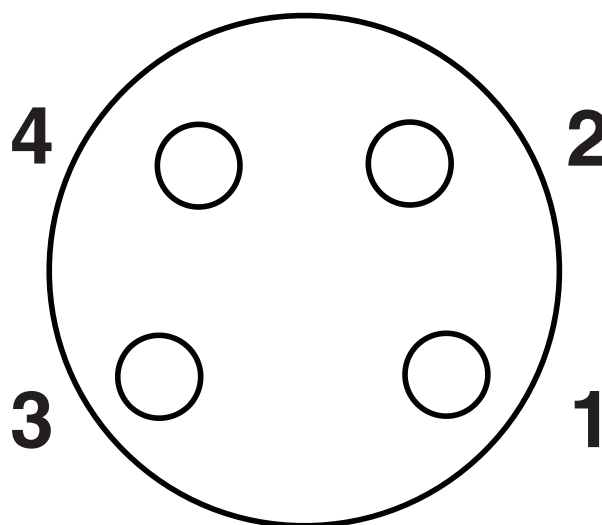
<https://www.phoenixcontact.com/us/products/1531015>

Schematic diagram



Pin assignment M12, 3-pos.

Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

Circuit diagram



SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

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

SAC-3P-M12MS/ 2,0-PUR/4P-M 8FS - Sensor/actuator cable



1531015

<https://www.phoenixcontact.com/us/products/1531015>

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