

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

<https://www.phoenixcontact.com/us/products/1420744>

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 M8, coding: A, on Valve connector BI (11 mm), with 1 LED, Wiring: Z diode, cable length: 0.45 m

Commercial data

Item number	1420744
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1DNA
GTIN	4055626233925
Weight per piece (including packing)	38.2 g
Weight per piece (excluding packing)	38.2 g
Country of origin	PL

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

<https://www.phoenixcontact.com/us/products/1420744>

Technical data

Product properties

Product type	Sensor/actuator cable with valve connector
Application	Standard
Number of positions	3
Shielded	no
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, hardly inflammable, self-extinguishing
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

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 M8
Coding type	A

Connection 2

Type	Valve connector BI (11 mm)
Material	CuSn (Contact)
	Sn (Contact surface)

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

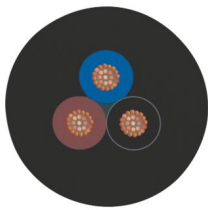
<https://www.phoenixcontact.com/us/products/1420744>

	PA 6.6 (Contact carrier)
	TPU (Housing)
Protective circuit	Z diode

Cable/line

Cable length	0.45 m
--------------	--------

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	23 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross-section	3x 0.34 mm ² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	3.85 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, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.50 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Max. conductor resistance	max. 58 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	19 mm
Smallest bending radius, movable installation	38 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 38 mm, Bending radius: 10 x D, 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.

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

<https://www.phoenixcontact.com/us/products/1420744>

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
----------------------	--------------

Standards and regulations

M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

Valve connector

Standard designation	Valve connector
Standards/specifications	EN 175301-803

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable

1420744

<https://www.phoenixcontact.com/us/products/1420744>

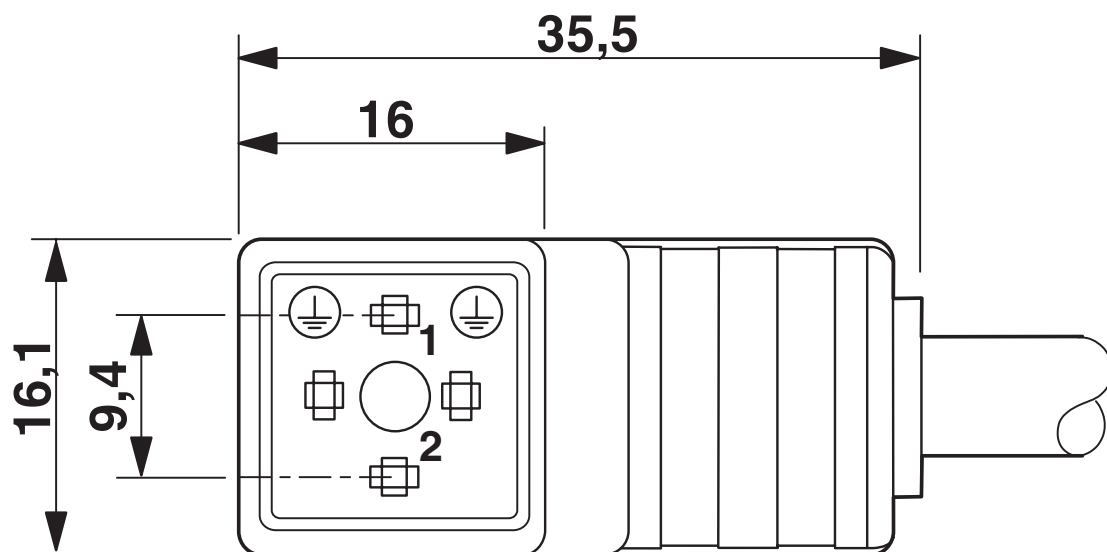
Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



Valve connector, type BI

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable

1420744

<https://www.phoenixcontact.com/us/products/1420744>

Schematic diagram



Pin assignment M8 male connector, 3-pos.

SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

<https://www.phoenixcontact.com/us/products/1420744>

Classifications

ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

UNSPSC

UNSPSC 21.0	31251501
-------------	----------

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