# SAC-3P-M 8MS/1,5-PUR/M 8FR-2L - Sensor/actuator cable



#### 1682003

https://www.phoenixcontact.com/pc/products/1682003

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, with 2 LEDs, on Socket angled M8, with 2 LEDs, cable length: 1.5 m

## Your advantages

- · Easy and safe: 100 % electrically tested plug-in components
- · Convenient: increased machine availability thanks to quick and easy diagnostics

# Commercial data

Item number	1682003
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	02
Product key	BF1BBA
Catalog page	Page 188 (C-2-2019)
GTIN	4017918158668
Weight per piece (including packing)	37.5 g
Weight per piece (excluding packing)	36 g
Customs tariff number	85444290
Country of origin	PL



#### 1682003

https://www.phoenixcontact.com/pc/products/1682003

# Technical data

## **Product properties**

Product type	Sensor/actuator cable
Number of positions	3
Application	Standard
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

## **Electrical properties**

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	24 V DC
Nominal current I <sub>N</sub>	4 A
Protective circuit	unwired

## Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100
Signaling	
Status display	2 LEDs
Status display present	Yes

# Connection data

Conductor connection	
Tightening torque	0.2 Nm (M8 connectors)

## Connector

Connection 1



#### 1682003

https://www.phoenixcontact.com/pc/products/1682003

Туре	Plug straight M8
Number of positions	3
Coding type	A
Connection 2	
Connection 2 Type	Socket angled M8

#### Cable/line

Cable length	1.5 m
--------------	-------

PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	18 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 0.25 mm² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	3.60 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)
Thickness, outer sheath	approx. 0.50 mm
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
Max. conductor resistance	≤ 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	18 mm
Smallest bending radius, movable installation	36 mm

# SAC-3P-M 8MS/1,5-PUR/M 8FR-2L - Sensor/actuator cable



#### 1682003

https://www.phoenixcontact.com/pc/products/1682003

Max. bending cycles	1000000
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	hydrolysis and microbe resistant
	Highly resistant to acids, alkaline solutions and solvents
	Resistant to salt water
	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

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)

#### Standards and regulations

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

Phoenix Contact 2024 © - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG Flachsmarktstraße 8 D-32825 Blomberg +49 (0) 5235-3 00 info@phoenixcontact.com