

## Sensor/Actuator cable - SAC-3P-M 8MS/1,5-PUR/M 8FR-2L - 1682003

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Sensor/Actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, on Socket angled M8, with 2 LEDs, Cable length: 1.5 m

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 158668
Weight per Piece (excluding packing)	46.2 g
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	1.5 m
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#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65
	IP67
	IP68

#### General

Rated current at 40°C	4 A
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### Technical data

#### General

Rated voltage	24 V
Number of positions	3
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M8 connector IEC 61076-2-104
Status display	2 LEDs
Protective circuit/component	Unwired
Overvoltage category	II
Pollution degree	3
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm (M8 connectors)

#### Material

Flammability rating according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

#### Standards and Regulations

Standard designation	M8 connector
Standards/regulations	IEC 61076-2-104
Flammability rating according to UL 94	HB

#### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	3x 0.25 mm <sup>2</sup> (signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (signal line)
Thickness, insulation	≥ 0.38 mm (Core insulation)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm

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### Technical data

#### Cable

External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	4.4 mm ±0.15 mm
Smallest bending radius, fixed installation	22 mm
Smallest bending radius, movable installation	44 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	24 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	≤ 78 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
Flame resistance	in accordance with DIN UL-Style 20549
Halogen-free	in accordance with DIN VDE 0472 part 815
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
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (cable, flexible installation)

### Classifications

eCl@ss

eCl@ss 4.0	27060306
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## Classifications

### eCl@ss

eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218

### ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

## Approvals

### Approvals

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#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

# Sensor/Actuator cable - SAC-3P-M 8MS/1,5-PUR/M 8FR-2L - 1682003

## Approvals

UL Listed	
Nominal current I <sub>N</sub>	4 A
Nominal voltage U <sub>N</sub>	24 V

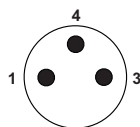
cUL Listed	
Nominal current I <sub>N</sub>	4 A
Nominal voltage U <sub>N</sub>	24 V

EAC

cULus Listed

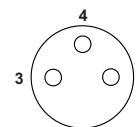
## Drawings

Schematic diagram



Pin assignment M8 plug, 3-pos., view male side

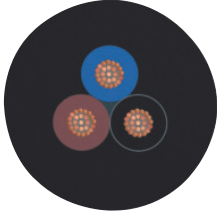
Schematic diagram



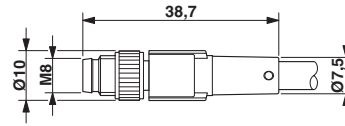
Pin assignment M8 socket, 3-pos., view female side

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Cable cross section



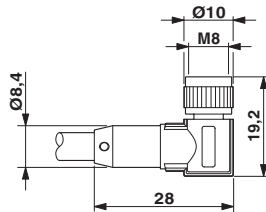
Dimensional drawing



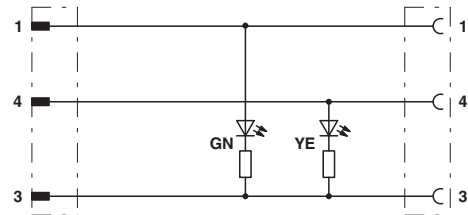
PUR halogen-free black [PUR]

M8 x 1 male plug, straight version

Dimensional drawing



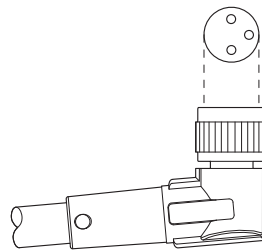
Circuit diagram



Socket M8 x 1, angled

Contact assignment of M8 plugs/sockets

Schematic diagram



Layout of connector pin assignments