

## Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Sensor/Actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M8, Cable length: 2 m



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	58.2 g
Custom tariff number	85444290
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	2 m
-----------------	-----

#### 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
Rated voltage	60 V
Number of positions	3
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
	M8 connector IEC 61076-2-104
Status display	No

## Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

### Technical data

#### General

Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

#### 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	M12 connector
Standards/regulations	IEC 61076-2-101
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
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

## Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

### Technical data

#### Cable

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
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801

# Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

## Classifications

### eCl@ss

eCl@ss 7.0	27061801
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

### 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

---

Approvals

UL Listed / cUL Listed / cULus Listed

---


Ex Approvals

---

Approvals submitted

---

### Approval details

UL Listed 	
Nominal current IN	4 A
Nominal voltage UN	125 V

# Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

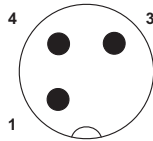
## Approvals

cUL Listed	
Nominal current I <sub>N</sub>	4 A
Nominal voltage U <sub>N</sub>	125 V

cULus Listed	
--------------	--

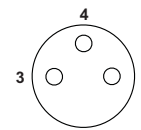
## Drawings

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram



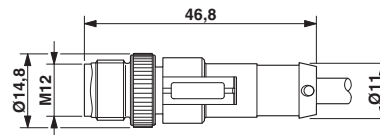
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



PUR halogen-free black [PUR]

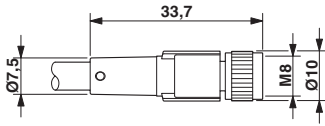
Dimensional drawing



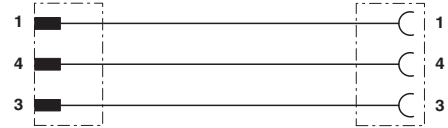
M12 x 1 plug, straight

## Sensor/Actuator cable - SAC-3P-M12MS/2,0-PUR/M 8FS - 1698097

Dimensional drawing



Circuit diagram



Socket M8 x 1, straight

Contact assignment of M12 plugs / M8 sockets

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Phoenix Contact:](#)

[1698097](#)