

# Sensor/actuator cable - SAC-8P-M12MS/ 3,0-PUR/M12FS SH - 1522998

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 3 m

## Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 957759
GTIN	4017918957759

## Technical data

### Dimensions

Length of cable	3 m
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### Ambient conditions

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

### General

Rated current at 40°C	2 A
Rated voltage	30 V AC
	30 V DC
Number of positions	8
Insulation resistance	≥ 100 MΩ
Coding	A - standard

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## Technical data

### General

Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
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	CuZn
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
Flammability rating according to UL 94	HB

### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	LiF9YC11Y
UL AWM style	20549 / 10493 (80°C/300 V)
Conductor cross section	8x 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
Thickness, insulation	approx. 0.2 mm
Wire colors	Brown, white, green, yellow, gray, pink, blue, red
Overall twist	8 wires around filler to the core
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.5 mm
External cable diameter D	5.9 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000

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## Technical data

### Cable

Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	53 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Conductor resistance	≤ 78 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Test voltage Core/Shield	≥ 2000 V AC (for 60 s)
Special properties	Flexible cable conduit capable
Flame resistance	in acc. with UL FT-2
	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
	According to DIN EN 60332-2-2 (20 s)
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
	Low adhesion
	Low adhesion
	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)

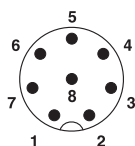
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

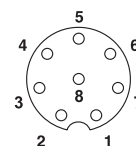
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Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Schematic diagram



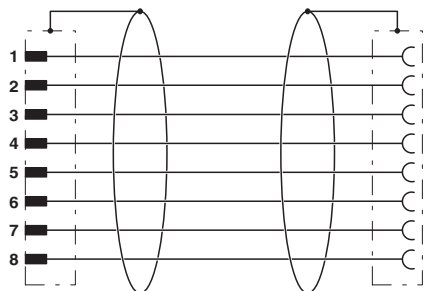
Pin assignment M12 socket, 8-pos., A-coded, view female side

Cable cross section



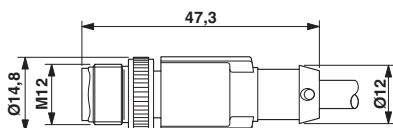
PUR halogen-free black [PUR]

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

## Approvals

### Approvals

Approvals


UL Listed / cUL Listed / EAC / cULus Listed


Ex Approvals

### Approval details


# Sensor/actuator cable - SAC-8P-M12MS/ 3,0-PUR/M12FS SH - 1522998

## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		30 V	
Nominal current IN		2 A	

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		30 V	
Nominal current IN		2 A	

EAC		EAC-Zulassung
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cULus Listed	
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PHOENIX CONTACT GmbH & Co. KG  
 Flachsmarktstr. 8  
 32825 Blomberg  
 Germany  
 Tel. +49 5235 300  
 Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>