

## Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-800/M12FR-2L - 1456873

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, welding sputter-resistant, highly flexible, Gray RAL 7001, Plug straight M12, A-coded, on Socket angled M12, A-coded, with 2 LEDs, Cable length: 1.5 m, for robots and drag chains

### Product Features

- Easy and safe: 100% electrically tested plug-in components
- Flexible: cable supports a high degree of torsion and bending
- Reliable solution for the body shop as cable is resistant to welding sparks
- Convenient: increased machine availability thanks to quick and easy diagnostics



### Key commercial data

Packing unit	1 pc
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	1.5 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	24 V
Number of positions	3
Contact resistance	≤ 5 mΩ

# Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-800/M12FR-2L - 1456873

## Technical data

### General

Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	2 LEDs
Protective circuit/component	Unwired
Surge voltage category	II
Pollution degree	3
Insertion/withdrawal cycles	$\geq 100$
Torque	0.4 Nm (M12 connector)

### Material

Inflammability class 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

### Cable

Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable type	Gray, highly flexible PUR
Cable type (abbreviation)	800
Cable abbreviation	Li12Y11Y-HF
Conductor cross section	3x 0.34 mm <sup>2</sup> (signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.3 mm $\pm 0.05$ mm (signal line)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
External sheath, color	Gray RAL 7001
External cable diameter D	4.5 mm $\pm 0.2$ mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s

# Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-800/M12FR-2L - 1456873

## Technical data

### Cable

Acceleration	30 m/s <sup>2</sup>
Torsion force	± 360 °/m
Cable weight	28.3 kg/km
Outer sheath, material	PUR
Material conductor insulation	PES
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	approx. 53 Ω/km
Nominal voltage, cable	300 V
Test voltage, cable	2000 V
Special properties	Sheath resistant to welding beads, can be recycled, matt, without adhesion, wear-resistant, flame resistant and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Flame resistance	DIN VDE 0472 part 804, test type B
	IEC 60332-1
	in acc. with UL FT-2
Halogen-free	The cable is halogen-free
Resistance to oil	According to VDE 0250 Part 407
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (cable, flexible installation)
	to 120 °C (for 3000 h)

## 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
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

### ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

# Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-800/M12FR-2L - 1456873

## Classifications

### UNSPSC

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

## Approvals

### Approvals

---

Approvals

GOST

---

Ex Approvals

---

Approvals submitted

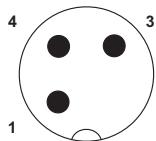
---

### Approval details

GOST 
--

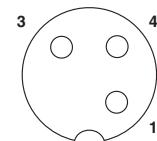
## Drawings

Schematic diagram



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

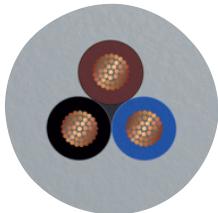
Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

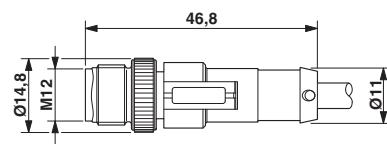
## Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-800/M12FR-2L - 1456873

Cable cross section



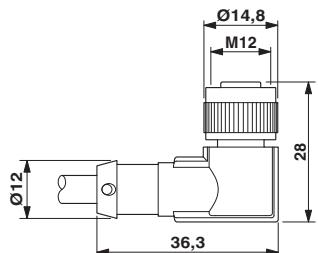
Gray, highly flexible PUR [800]

Dimensioned drawing



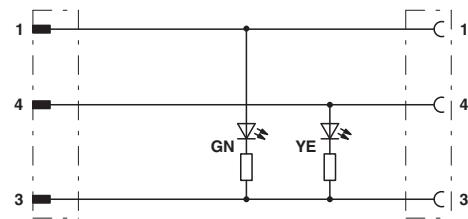
M12 x 1 plug, straight

Dimensioned drawing



Socket M12 x 1, angled, with LED

Circuit diagram



Contact assignment of the M12 plug and the M12 socket