



**Automatización Eléctrica**  
Especialistas en Automatización

At the end of this document you will find links to products related to this catalog. You can go directly to our shop by clicking [HERE](#). [HERE](#)

# Sensor/Actuator cable - SAC-3P- 3,0-800/M12FR - 1456718

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, free cable end, on Socket angled M12, A-coded, Cable length: 3 m, for robots and drag chains

## Why buy this product

- 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

## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 593076

## Technical data

### Dimensions

Length of cable	3 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	250 V
Number of positions	3
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3

# Sensor/Actuator cable - SAC-3P- 3,0-800/M12FR - 1456718

## Technical data

### General

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
Flammability rating according to UL 94	HB

### 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
UL AWM style	20233
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 ±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 ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	10000000
Minimum bending radius, drag chain applications	7,5 x D
Traversing path	5 m
Traversing rate	3.3 m/s
Acceleration	5 m/s <sup>2</sup>
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s

## Sensor/Actuator cable - SAC-3P- 3,0-800/M12FR - 1456718

### Technical data

#### Cable

Acceleration	30 m/s <sup>2</sup>
Torsion force	± 360 °/m (10,000,000 torsion cycles)
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	According to IEC 60332-1-2
	According to UL 758/1581 VW-1
	According to UL 758/1581 FT1
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	According to HD 22.10
	in accordance with DIN EN 60811-404 (external sheath)
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	Silicone-free
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	27279218

#### ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

# Sensor/Actuator cable - SAC-3P- 3,0-800/M12FR - 1456718

## Classifications

### 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 / EAC / cULus Listed

#### Ex Approvals

#### Approvals submitted

## Approval details

UL Listed	
Nominal current IN	4 A
Nominal voltage UN	300 V

cUL Listed	
Nominal current IN	4 A
Nominal voltage UN	300 V

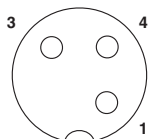
EAC
-----

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

# Sensor/Actuator cable - SAC-3P- 3,0-800/M12FR - 1456718

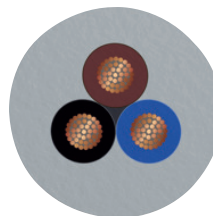
## Drawings

Schematic diagram



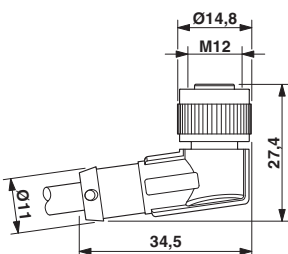
Pin assignment M12 socket, 3-pos., A-coded, view female side

Cable cross section



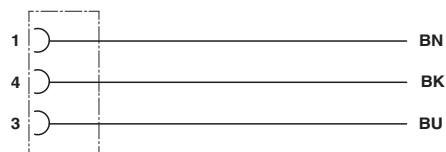
Gray, highly flexible PUR [800]

Dimensional drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 socket

Below is a list of articles with direct links to our shop Electric Automation Network where you can see:

- Quote per purchase volume in real time.
- Online documentation and datasheets of all products.
- Estimated delivery time enquiry in real time.
- Logistics systems for the shipment of materials almost anywhere in the world.
- Purchasing management, order record and tracking of shipments.

To access the product, [click on the green button.](#)

<b>Product</b>	<b>Code</b>	<b>Reference</b>	<b>Product link</b>
Sensor/Actuator cable, 3-position, PUR halogen-free, welding sputter-resistant, highly flexible, gray RAL 7001, free cable end, on Socket angled M12, A-coded, Cable length: 3 m, for robots and drag chains	1456718	SAC-3P-3,0-800/M12FR	<a href="#">Buy on EAN</a>