

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

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 documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 4-position, PVC, gray RAL 7001, Plug straight M12, coding: A, on free cable end, cable length: 3 m, with high-grade steel knurl

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Contamination can be detected quickly – thanks to the light color

## Commercial data

Item number	1420941
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CCA
GTIN	4055626249797
Weight per piece (including packing)	128.49 g
Weight per piece (excluding packing)	119.45 g
Customs tariff number	85444290
Country of origin	PL

1420941

<https://www.phoenixcontact.com/us/products/1420941>

## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Food processing industry
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Material specifications

Material of grip body	PP
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material for screw connection	Stainless steel

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	250 V AC
	250 V DC
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
-----------------------------	------------

### Signaling

Status display	no
Status display present	no

### Connection data

#### Conductor connection

Tightening torque	0.4 Nm (M12 connector)
-------------------	------------------------

### Connector

#### Connection 1

Type	Plug straight M12
Number of positions	4

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

Coding type	A
-------------	---

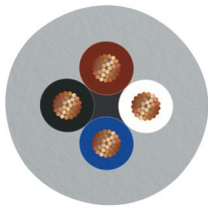
## Connection 2

Type	free cable end
------	----------------

## Cable/line

Cable length	3 m
--------------	-----

## PVC gray [500]

Dimensional drawing	
Cable weight	40 kg/km
UL AWM Style	2464 / 1729 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PVC gray [500]
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross-section	4x 0.34 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	1.26 mm ±0.05 mm
External cable diameter	4.70 mm ±0.15 mm
Outer sheath, material	PVC
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.23 mm (Core insulation)
Thickness, outer sheath	≥ 0.76 mm
Overall twist	4 wires, twisted
Max. conductor resistance	max. 57 Ω/km (at 20 °C)
Insulation resistance	≥ 200 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	24 mm
Smallest bending radius, movable installation	47 mm
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation)

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
	IP69K
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

## Standards and regulations

### M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable

1420941

<https://www.phoenixcontact.com/us/products/1420941>

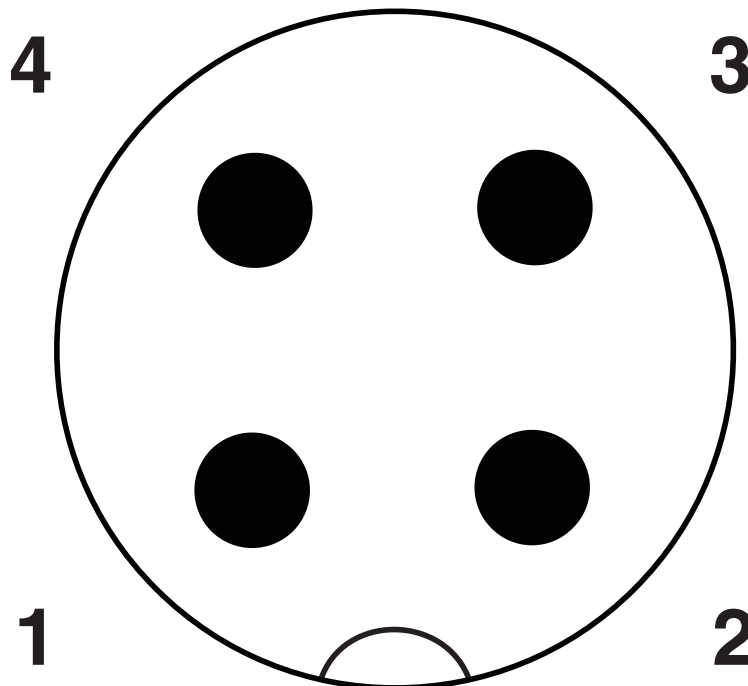
## Drawings

Dimensional drawing



Plug, M12 x 1, straight

Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

Circuit diagram



Contact assignment of the M12 plug

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable




1420941

<https://www.phoenixcontact.com/us/products/1420941>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1420941>

 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	250 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	250 V	4 A	-	-

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 9.0	EC001855
----------	----------

### UNSPSC

UNSPSC 21.0	26121600
-------------	----------

# SAC-4P-M12MS/3,0-500 FB - Sensor/actuator cable



1420941

<https://www.phoenixcontact.com/us/products/1420941>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	f037f164-d161-40d6-a536-97c0c2779b9e

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA

586 Fulling Mill Road

Middletown, PA 17057, United States

(+717) 944-1300

[info@phoenixcon.com](mailto:info@phoenixcon.com)