

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

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, free cable end, on Socket angled M12, coding: A, with 3 LEDs, cable length: 10 m, with high-grade steel knurl

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Convenient: increased machine availability thanks to quick and easy diagnostics
- Contamination can be detected quickly – thanks to the light color

## Commercial data

Item number	1420977
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CCA
GTIN	4055626250076
Weight per piece (including packing)	374.54 g
Weight per piece (excluding packing)	365.5 g
Customs tariff number	85444290
Country of origin	PL

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

## 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 $U_N$	24 V DC
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

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

### Signaling

Status display	3 LEDs
Status display present	yes

### Connector

#### Connection 1

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

#### Connection 2

Type	Socket angled M12
Number of positions	4
Coding type	A

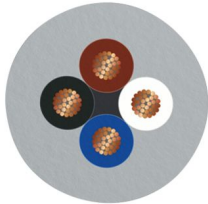
### Cable/line

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

Cable length	10 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)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

	IP68
	IP69K
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

## Standards and regulations

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

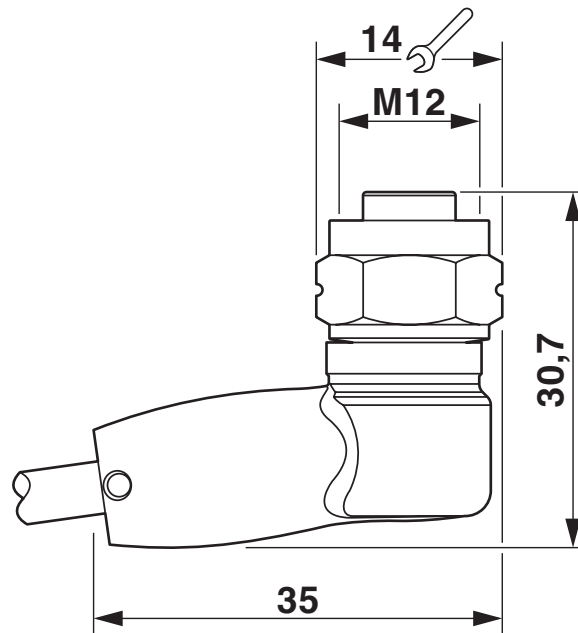
# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable

1420977

<https://www.phoenixcontact.com/us/products/1420977>

## Drawings

Dimensional drawing



M12 x 1 socket, angled

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable

1420977

<https://www.phoenixcontact.com/us/products/1420977>

Schematic diagram



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

Circuit diagram



Contact assignment of M12 sockets with LED

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable





1420977

<https://www.phoenixcontact.com/us/products/1420977>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1420977>

 <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-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
-----------	----------

### UNSPSC

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

# SAC-4P-10,0-500/M12FR-3L FB - Sensor/actuator cable



1420977

<https://www.phoenixcontact.com/us/products/1420977>

## 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	4cd9424a-a1df-4bff-b2a7-5e50b24034f9

### EF3.1 Climate Change

CO2e kg	3.356 kg CO2e
---------	---------------

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)