

## Sensor/Actuator cable - SAC-4P-M12MS/ 2,5-PUR/M12FS - 1504592

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://download.phoenixcontact.com>)



Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 2.5 m



### Key commercial data

Packing unit	1 1
Weight per Piece (excluding packing)	105.11 GRM
Custom tariff number	85444290
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	2.5 m
-----------------	-------

#### Ambient conditions

Degree of protection	IP65
	IP67
	IP68

#### General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Status display	No
Surge voltage category	II
Pollution degree	3

## Sensor/Actuator cable - SAC-4P-M12MS/ 2,5-PUR/M12FS - 1504592

### Technical data

#### General

Insertion/withdrawal cycles	≥ 100
-----------------------------	-------

#### 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

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	4x 0.34 mm <sup>2</sup> (signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±0.02 mm (signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	≥ 0.8 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	49.5 mm
External sheath, color	Black-gray RAL 7021
External cable diameter D	4.7 mm ±0.15 mm
Smallest bending radius, fixed installation	23.5 mm
Smallest bending radius, movable installation	47 mm
Number of bending cycles	4000000
Bending radius	47 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	30 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires

## Sensor/Actuator cable - SAC-4P-M12MS/ 2,5-PUR/M12FS - 1504592

### Technical data

#### Cable

Insulation resistance	$\geq 1 \text{ G}\Omega\cdot\text{km}$
Conductor resistance	max. $58 \text{ }\Omega/\text{km}$ (at $20 \text{ }^\circ\text{C}$ )
Nominal voltage, cable	$\leq 300 \text{ V}$
Test voltage, cable	$\geq 3000 \text{ V}$
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	Flexible
Flame resistance	in accordance with DIN UL-Style 20549
	in accordance with FT1 as per UL 758
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Ambient temperature (operation)	$-40 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$ (cable, fixed installation)
	$-25 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$ (cable, flexible installation)

### 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 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

#### UNSPSC

UNSPSC 6.01	31251501
-------------	----------

# Sensor/Actuator cable - SAC-4P-M12MS/ 2,5-PUR/M12FS - 1504592

## Classifications

### UNSPSC

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

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approvals submitted

### Approval details

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

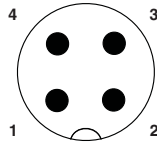
cUL Listed	
Nominal current IN	4 A
Nominal voltage UN	300 V

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

# Sensor/Actuator cable - SAC-4P-M12MS/ 2,5-PUR/M12FS - 1504592

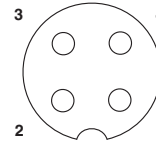
## Drawings

Schematic diagram



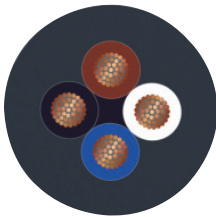
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



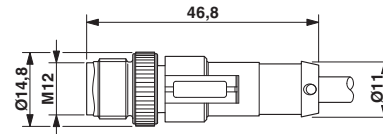
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



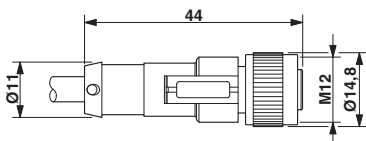
PUR halogen-free black [PUR]

Dimensioned drawing



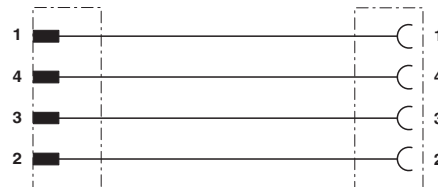
M12 x 1 plug, straight

Dimensioned drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket