

## Sensor/Actuator cable - SAC-4P-20,0-PUR/M12FR SH - 1514511

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Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, shielded, Free cable end, on Socket straight M12, A-coded, Cable length: 20 m



### Key commercial data

Packing unit	1 1
Minimum order quantity	5 1
Weight per Piece (excluding packing)	1016.0 GRM
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	20 m
Stripping length of the free conductor end	50 mm

#### Ambient conditions

Degree of protection	IP65
	IP67

#### 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

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### Technical data

#### General

Pollution degree	3
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 shielded
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y-V1-C-V1-11Y
UL AWM style	20549 / 10493 (80°C/300 V)
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)
	approx. 1 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Black-gray RAL 7021
External cable diameter D	5.9 mm ± 0.2 mm
Smallest bending radius, fixed installation	29.5 mm
Smallest bending radius, movable installation	59 mm
Number of bending cycles	2000000
Bending radius	59 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	46 kg/km
Outer sheath, material	PUR

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### Technical data

#### Cable

Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 100 \text{ G}\Omega \cdot \text{km}$ (at 20 °C)
Conductor resistance	max. 58 $\Omega/\text{km}$ (at 20 °C)
Working capacitance	$\leq 80 \text{ pF}$ (Conductor-Conductor)
	$\leq 135 \text{ pF}$ (Wire/shield)
Wave impedance	$\geq 62 \Omega$ (f = 10 MHz)
Inductance	approx. 0.75 mH (f = 1 kHz)
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
	Low adhesion surface
Flame resistance	In accordance with UL FT-2
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
	Resistant to salt water
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	abrasion-resistant
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °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

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## Classifications

### ETIM

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

### UNSPSC

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

## Approvals

### Approvals

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#### Approvals

UL Listed / cUL Listed / cULus Listed

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#### Ex Approvals

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#### Approvals submitted

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## Approval details

UL Listed 	
Nominal current I <sub>N</sub>	4 A
Nominal voltage U <sub>N</sub>	300 V

# Sensor/Actuator cable - SAC-4P-20,0-PUR/M12FR SH - 1514511

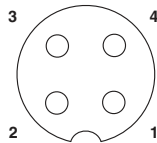
## Approvals

cUL Listed	
Nominal current I <sub>N</sub>	4 A
Nominal voltage U <sub>N</sub>	300 V

cULus Listed	
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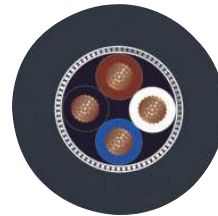
## Drawings

Schematic diagram



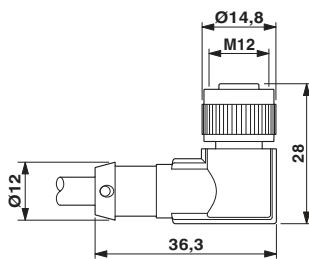
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



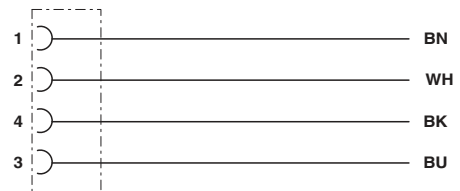
PUR halogen-free black shielded [PUR]

Dimensioned drawing



M12 x 1 socket, angled, shielded

Circuit diagram



Contact assignment of the M12 socket

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Diagram

