

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-PUR/M12FS - 1694075

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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: 5 m



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	167.6 g
Custom tariff number	85444290
Country of origin	United States

Technical data

Dimensions

Length of cable	5 m
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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	4
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Status display	No
Overvoltage category	II
Degree of pollution	3

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-PUR/M12FS - 1694075

Technical data

General

Insertion/withdrawal cycles	≥ 100
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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

Flammability rating according to UL 94	HB
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Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549 / 10493 (80°C/300 V)
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm $\pm$ 0.02 mm
Thickness, insulation	≥ 0.21 mm
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.8 mm
External cable diameter D	4.7 mm $\pm$ 0.15 mm
Smallest bending radius, fixed installation	23.5 mm
Smallest bending radius, movable installation	47 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Bending radius	47 mm
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²

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Technical data

Cable

Cable weight	30 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 1 \text{ G}\Omega\cdot\text{km}$
Conductor resistance	$\leq 58 \text{ }\Omega/\text{km}$
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	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
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
	Low adhesion
	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	27279218
eCl@ss 9.0	27060311

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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

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed 	
Nominal current I _N	4 A
Nominal voltage U _N	300 V

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-PUR/M12FS - 1694075

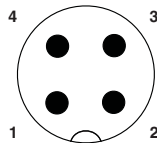
Approvals

cUL Listed 	
Nominal current I _N	4 A
Nominal voltage U _N	300 V

cULus Listed 	
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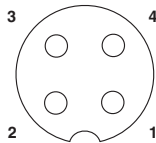
Drawings

Schematic diagram



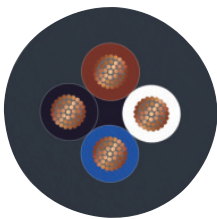
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



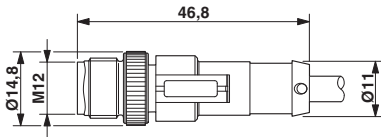
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



PUR halogen-free black [PUR]

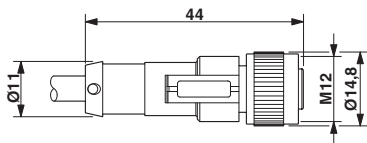
Dimensional drawing



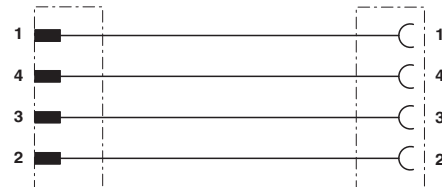
M12 x 1 plug, straight

Sensor/Actuator cable - SAC-4P-M12MS/ 5,0-PUR/M12FS - 1694075

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 plug and the M12 socket