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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: 10 m



Key Commercial Data

Packing unit	1 STK
GTIN	4 017918 592509
GTIN	4017918592509
Weight per Piece (excluding packing)	312.000 g
Custom tariff number	85444290
Country of origin	United States

Technical data

Dimensions

Length of cable	10 m

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



Technical data

General

Insulation resistance	$\geq 100 \ M\Omega$
Coding	A - standard
Status display	No
Overvoltage category	П
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

Material

Flammability rating according to UL 94	НВ
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	НВ
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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 mm²
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±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 ±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



Technical data

Cable

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/s²
Cable weight	30 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 1 \text{ G}\Omega^*\text{km}$
Conductor resistance	≤ 58 Ω/km
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 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)

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e	
	No hazardous substances above threshold values	

Drawings



Schematic diagram



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

Schematic diagram

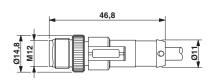


Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



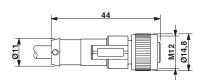
Dimensional drawing



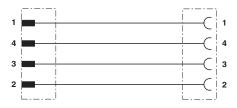
PUR halogen-free black [PUR]

Plug, M12 x 1, straight, shielded

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 plug and the M12 socket

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details



Approvals

UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal current IN			4 A	
Nominal voltage UN			300 V	

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal current IN			4 A	
Nominal voltage UN			300 V	

cULus Listed	C UL US		
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