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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: 2.5 m



Key Commercial Data

Packing unit	5 pc
GTIN	4 017918 840648
GTIN	4017918840648

Technical data

Dimensions

Length of cable	2.5 m
A 1.2 (120	

Ambient conditions

Degree of protection	IP65	
	IP67	
	IP68	

General

Rated current at 40°C	4 A
Rated voltage	250 V AC
	250 V DC
Number of positions	4
Insulation resistance	\geq 100 M Ω
Coding	A - standard
Status display	No
Overvoltage category	Ш
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100



Technical data

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	
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. 0.5 mm
External cable diameter D	4.2 mm ±0.15 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	10000000
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	≥ 1 GΩ*km
Conductor resistance	$\leq 58 \ \Omega/\text{km}$
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
	10/05/0040 B 0 / 5



Technical data

Cable

	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	flexible
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
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		

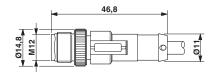
Drawings

Schematic diagram



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

Dimensional drawing



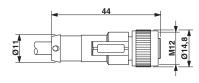
Plug, M12 x 1, straight, shielded

Schematic diagram



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

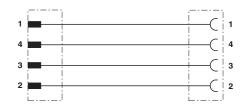
Dimensional drawing



M12 x 1 socket, straight



Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed	UL	http://database.ul.cor	FILE E 221474	
Nominal voltage UN			300 V	
Nominal current IN			4 A	

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

cULus Listed cULus Listed



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