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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: 10 m

Product Features

- Easy and safe: 100% electrically tested plug-in components
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	480.0 g
Custom tariff number	85444290
Country of origin	India

Technical data

Dimensions

Length of cable	10 m
Stripping length of the free conductor end	50 mm

Ambient conditions

Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)		
Degree of protection	IP65		
	IP67		

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Contact resistance	$\leq 5 \text{ m}\Omega$



Technical data

General

Insulation resistance	\geq 100 M Ω		
Coding	A - standard		
Standards/regulations	M12 connector IEC 61076-2-101		
Status display	No		
Protective circuit/component	Unwired		
Overvoltage category	II		
Pollution degree	3		
Insertion/withdrawal cycles	≥ 100		
Torque	0.4 Nm (M12 connector)		

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

Cable

Cable type	PUR halogen-free black		
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 mm² (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		
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		
Outer sheath thickness	approx. 1 mm		
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		



Technical data

Cable

Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Bending radius	59 mm
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Cable weight	46 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	max. 58 Ω/km (at 20 °C)
Working capacitance	≤ 80 pF (Conductor-Conductor)
	≤ 135 pF (Wire/shield)
Wave impedance	≥ 62 Ω (f = 10 MHz)
Inductance	approx. 0.75 mH (f = 1 kHz)
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
	Low adhesion surface
Flame resistance	in acc. 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
eCI@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218

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

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details



Approvals

UL Listed (II)	
Nominal current IN	4 A
Nominal voltage UN	300 V

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

EAC

cULus Listed ***

Drawings

Schematic diagram



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

Cable cross section



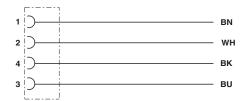
PUR halogen-free black [PUR]



Dimensional drawing

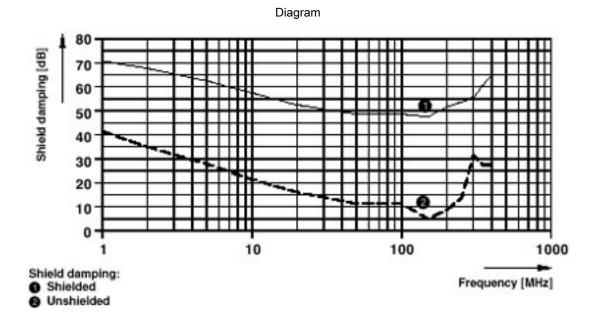
44,5

Circuit diagram



M12 x 1 socket, straight, shielded

Contact assignment of the M12 socket



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