

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket angled M12, A-coded, cable length: 10 m

Why buy this product

- ✓ Our standard: robust halogen-free PUR cable
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



Key Commercial Data

Packing unit	1 STK
GTIN	4 017918 610807
GTIN	4017918610807

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 AC	
	250 V DC	
Number of positions	4	
Insulation resistance	≥ 100 MΩ	



Technical data

General

Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	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	

Standards and Regulations

Standard designation	M12 connector	
Standards/regulations	IEC 61076-2-101	
Flammability rating according to UL 94	НВ	

Cable

Cable time	DLID belogen free block
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	80 %
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.5 mm
External cable diameter D	4.95 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D



Technical data

Cable

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	36 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PP	
Conductor material	Bare Cu litz wires	
Insulation resistance	\geq 100 G Ω *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	\geq 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 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	
	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)	

Environmental Product Compliance

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

Drawings



Schematic diagram



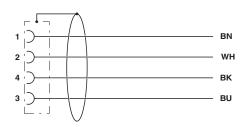
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



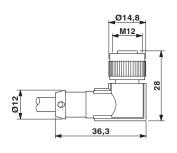
PUR halogen-free black [PUR]

Circuit diagram



Contact assignment of the M12 socket

Dimensional drawing



M12 x 1 socket, angled, shielded

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed	UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 2214		FILE E 221474
Nominal voltage UN			300 V	
Nominal current IN			4 A	



Approvals

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	

EAC	ERC	EAC-Zulassung
cULus Listed	C UL US	

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