imall

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, Plug straight M12, A-coded, on Socket straight M8, cable length: 3 m

Why buy this product

- ☑ Easy and safe: 100% electrically tested plug-in components
- ☑ Our standard: robust halogen-free PUR cable

RoHS

Key Commercial Data

acking unit 1 STK	
GTIN	4 017918 180386
GTIN	4017918180386
Sales Key	02

Technical data

Dimensions

Length of cable 3 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	48 V AC	
	60 V DC	
Number of positions	4	
Insulation resistance	\geq 100 M Ω	



Technical data

General

Coding	A - standard	
Standards/regulations	M12 connector IEC 61076-2-101	
	M8 connector IEC 61076-2-104	
Status display	No	
Protective circuit/component	Unwired	
Overvoltage category	П	
Degree of pollution	3	
Insertion/withdrawal cycles	≥ 100	
Torque	0.4 Nm (M12 connector)	
	0.2 Nm (M8 connectors)	

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
Standard designation	M8 connector
Standards/regulations	IEC 61076-2-104
Flammability rating according to UL 94	НВ

Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
Conductor cross section	4x 0.25 mm² (Signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.5 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	black-gray RAL 7021
External cable diameter D	3.95 mm ±0.15 mm
Smallest bending radius, fixed installation	20 mm



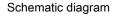
Technical data

Cable

Smallest bending radius, movable installation	40 mm
Number of bending cycles	1000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	5 m/s ²
Cable weight	23 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	\geq 100 GΩ*km (at 20 °C)
Conductor resistance	max. 78 Ω/km (at 20 °C)
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
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
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
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 M8 socket, 4-pos., view female side

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

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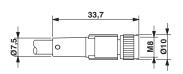


Cable cross section

PUR halogen-free black [PUR]

Plug, M12 x 1, straight, shielded

Dimensional drawing



Dimensional drawing

Circuit diagram

Socket M8 x 1, straight

Contact assignment of M12 plugs / M8 sockets

Approvals

Approvals

Approvals

EAC / UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

EAC	EAC			EAC-Zulassung
UL Listed	ULISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN		30 V		
Nominal current IN		4 A		

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Approvals

cUL Listed	CUL LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			30 V	
Nominal current IN			4 A	

cULus Listed

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