

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, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, on free cable end, cable length: 5 m

#### Why buy this product



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 017918 158347
GTIN	4017918158347
Sales Key	02

#### Technical data

#### **Dimensions**

Length of cable	5 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
	IP68

#### General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	3



## Technical data

#### General

Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Standards/regulations	M8 connector IEC 61076-2-104
Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	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	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
UL AWM style	20549
Conductor cross section	3x 0.25 mm <sup>2</sup>
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm
Thickness, insulation	≥ 0.21 mm (Core insulation)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.5 mm
External cable diameter D	3.6 mm ±0.15 mm
Smallest bending radius, fixed installation	18 mm
Smallest bending radius, movable installation	36 mm



## Technical data

#### Cable

Number of bending cycles	10000000	
Bending radius	44 mm	
Traversing path	10 m	
Traversing rate	3 m/s	
Acceleration	10 m/s <sup>2</sup>	
Cable weight	18 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PP	
Conductor material	Bare Cu litz wires	
Insulation resistance	$\geq$ 100 G $\Omega$ *km (at 20 °C)	
Conductor resistance	$\leq$ 78 $\Omega$ /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	hydrolysis and microbe resistant	
	Highly resistant to acids, alkaline solutions and solvents	
	Resistant to salt water	
	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**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings



Schematic diagram Cable cross section Pin assignment M8 plug, 3-pos., view male side PUR halogen-free black [PUR] Dimensional drawing Circuit diagram M8 x 1 male plug, straight version Contact assignment of the M8 plug Approvals Approvals Approvals EAC / UL Listed / cUL Listed / cULus Listed Ex Approvals Approval details EAC-Zulassung EAC

UL Listed LISTED	http://database.ul.com	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
Nominal voltage UN		60 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			60 V	
Nominal current IN			4 A	

cULus Listed
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