

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 angled M12 SPEEDCON, Acoded, on free cable end, cable length: 3 m

#### Why buy this product

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



# **Key Commercial Data**

Packing unit	1 STK
GTIN	4 017918 961237
GTIN	4017918961237

#### Technical data

#### Dimensions

Length of cable	3 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	250 V AC
	250 V DC
Number of positions	4



# Technical data

## General

Insulation resistance	$\geq$ 10 M $\Omega$
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	

#### Cable

Cable type	PUR halogen-free black		
Cable abbreviation	Li9Y11Y-HF		
Conductor cross section	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	approx. 0.21 mm (Core insulation)		
	approx. 0.8 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	4.70 mm		
Smallest bending radius, movable installation	47 mm		
Number of bending cycles	4000000		
Bending radius	47 mm		
Traversing path	10 m		
Traversing rate	3 m/s		
Cable weight	30 kg/km		
Outer sheath, material	PUR		
Material conductor insulation	PP		
Conductor material	Bare Cu litz wires		
Standards/specifications	M12 connector IEC 61076-2-101		
Insulation resistance	≥ 100 MΩ*km		



#### Technical data

## Cable

Conductor resistance	≤ 58 Ω/km
Nominal voltage, cable	300 V
Test voltage, cable	3000 V
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-5 °C 80 °C (cable, flexible installation)

## Standards and Regulations

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

#### **Environmental Product Compliance**

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

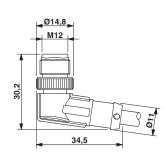
# **Drawings**

#### Schematic diagram



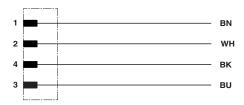
Pin assignment M12 plug, 4-pos., A-coded, view plug side

#### Dimensional drawing



M12 x 1 male plug, angled

## Circuit diagram



Contact assignment of the M12 plugs

## Approvals

## Approvals



# Approvals

Approvals	Ar	ppr	OV	al	s
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UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

## Approval details

UL Listed	U <sub>L</sub>	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	

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

EAC EAC-Zulassung
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cULus Listed cULus	
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