

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, 5-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, A-coded, on free cable end, cable length:  $1.5\ m$ 

#### Why buy this product



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 017918 134693
GTIN	4017918134693
Sales Key	02

### Technical data

#### **Dimensions**

Length of cable	1.5 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	5



## Technical data

## General

Insulation resistance	$\geq 100 \text{ M}\Omega$
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
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 type	PUR halogen-free black
Cable type (abbreviation)	PUR
UL AWM style	20549
Conductor cross section	5x 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	approx. 0.5 mm
Wire colors	brown, white, blue, black, green-yellow
External sheath, color	black-gray RAL 7021
External cable diameter D	4.55 mm ±0.15 mm
Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	46 mm
Number of bending cycles	10000000
Bending radius	50 mm
Traversing path	10 m
Traversing rate	3 m/s



## Technical data

## Cable

33 kg/km
PUR
РР
Bare Cu litz wires
≥ 16 GΩ*km (at 20 °C)
max. 58 Ω/km (at 20 °C)
300 V
3000 V
Flexible cable conduit capable
Silicone-free
Free of substances which would hinder coating with paint or varnish
flexible
in accordance with UL 758/1581 FT2
DIN EN 60332-2-2 (20 s)
n accordance with DIN VDE 0472 part 815
n accordance with DIN EN 60811-2-1
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
-40 °C 80 °C (cable, fixed installation)
-25 °C 80 °C (cable, flexible installation)
F E

## **Environmental Product Compliance**

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

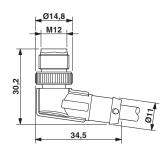
## Drawings

### Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

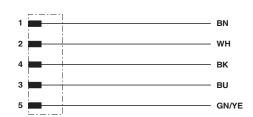
### Dimensional drawing



M12 x 1 male plug, angled



#### Circuit diagram



Contact assignment of the M12 plug

## 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 221474
Nominal voltage UN			125 V	
Nominal current IN			4 A	

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			125 V	
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EAC	EAC	EAC-Zulassung
EAC	EAC	EAC-Zulassung

cULus Listed cULus Listed



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