

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, welding sputter-resistant, highly flexible, gray RAL 7001, Plug straight M12, A-coded, on free cable end, cable length: 3 m, for robots and drag chains

Why buy this product

- ☑ Easy and safe: 100% electrically tested plug-in components
- Flexible: cable supports a high degree of torsion and bending
- Reliable solution for the body shop as cable is resistant to welding sparks



Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 593380
GTIN	4046356593380

Technical data

Dimensions

Length of cable	3 m
Estigni of capic	0 111

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	
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

Standards and Regulations

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

Cable

Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable type	Gray, highly flexible PUR
Cable type (abbreviation)	800
Cable abbreviation	Li12YYTPE-HF
UL AWM style	20233
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	1.3 mm ±0.05 mm (Signal line)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	gray RAL 7001
External cable diameter D	4.8 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	10000000
Minimum bending radius, drag chain applications	7,5 x D
Traversing path	5 m
Traversing rate	3.3 m/s

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Technical data

Cable

Acceleration	5 m/s²	
Number of bending cycles	15000000	
Bending radius	50 mm	
Traversing path	0.9 m	
Traversing rate	5 m/s	
Acceleration	30 m/s ²	
Torsion force	± 360 °/m (1 000 000 torsion cycles)	
Cable weight	33.5 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PES	
Conductor material	Bare Cu litz wires	
Insulation resistance	\geq 20 M Ω *km	
Conductor resistance	approx. 53 Ω/km	
Nominal voltage, cable	300 V	
Test voltage, cable	2000 V	
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing	
	Free from silicone and cadmium	
	Free of substances which would hinder coating with paint or varnish	
Flame resistance	according to IEC 60332-1-2	
	according to UL 758/1581 VW-1	
	according to UL 758/1581 FT1	
Halogen-free	in accordance with DIN VDE 0472 part 815	
Resistance to oil	According to HD 22.10	
	in accordance with DIN EN 60811-404 (external sheath)	
Other resistance	Highly resistant to acids, alkaline solutions and solvents	
	Silicone-free	
Ambient temperature (operation)	-40 °C 90 °C (cable, fixed installation)	
	-30 °C 90 °C (cable, flexible installation)	
	to 120 °C (for 3000 h)	

Environmental Product Compliance

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

Drawings

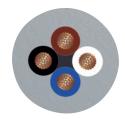


Schematic diagram



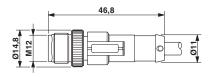
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Cable cross section

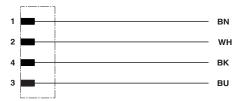


Gray, highly flexible PUR [800]

Dimensional drawing



Circuit diagram



Plug, M12 x 1, straight, shielded

Contact assignment of the M12 plug

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed	UL LISTED	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	



Approvals

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			300 V	
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EAC	ERC	EAC-Zulassung
cULus Listed	C UL US	

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