

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 straight M12, A-coded, on free cable end, cable length: 1.5 m, with plastic knurl

Why buy this product

- ☑ Save weight our connectors with light plastic knurl



Key Commercial Data

Packing unit	1 STK		
GTIN	4 046356 534970		
GTIN	4046356534970		

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 10 M Ω		
Coding	A - standard		
Standards/regulations	M12 connector IEC 61076-2-101		
Status display	No		
Protective circuit/component	Unwired		
Overvoltage category	П		
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	Polyamide	

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	
Acceleration	10 m/s²	



Technical data

Cable

Cable weight	33 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	\geq 16 G Ω *km (at 20 °C)
Conductor resistance	max. 58 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
	flexible
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
	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

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

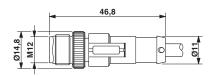
Drawings

Schematic diagram



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

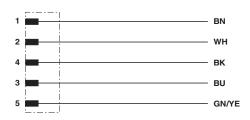
Dimensional drawing



Plug, M12 x 1, straight, shielded



Circuit diagram



Contact assignment of the M12 plug

Approvals Approvals			
Approvals EAC			
Ex Approvals			
Approval details			
EAC	EAC		EAC-Zulassung

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