

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 straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 1 m



Key commercial data

Packing unit	11
Weight per Piece (excluding packing)	91.3 GRM
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	1 m

Ambient conditions

Degree of protection	IP65
	IP67
	IP68

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Contact resistance	$\leq 5~\text{m}\Omega$
Insulation resistance	\geq 100 M Ω
Coding	A - standard
Status display	No
Surge voltage category	П
Pollution degree	3



Technical data

General

Insertion/withdrawal cycles	≥ 100
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Material

Inflammability class 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

Cable

Cable type	PUR halogen-free black	
Cable type (abbreviation)	PUR	
Cable abbreviation	Li9Y11Y-HF	
UL AWM style	20549 / 10493 (80°C/300 V)	
Conductor cross section	4x 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	≥ 0.21 mm	
Wire colors	brown, white, blue, black	
Overall twist	4 wires, twisted	
External sheath, color	Black-gray RAL 7021	
Outer sheath thickness	approx. 0.8 mm	
External cable diameter D	4.7 mm ±0.15 mm	
Minimum bending radius, fixed installation	5 x D	
Minimum bending radius, flexible installation	10 x D	
Number of bending cycles	4000000	
Minimum bending radius, drag chain applications	10 x D	
Traversing path	10 m	
Traversing rate	3 m/s	
Acceleration	10 m/s²	
Cable weight	30 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PP	
Conductor material	Bare Cu litz wires	
Insulation resistance	≥ 1 GΩ*km	



Technical data

Cable

Conductor resistance	\leq 58 Ω /km
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 DIN UL-Style 20549
	in accordance with FT1 as per UL 758
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
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
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	Low adhesion
	abrasion-resistant
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °C (cable, flexible installation)

Classifications

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855



Classifications

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Αŗ	gc	ro	va	ls

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed (I)	
Nominal current IN	4 A
Nominal voltage UN	300 V

cUL Listed •	
Nominal current IN	4 A
Nominal voltage UN	300 V



Approvals



Drawings

Schematic diagram



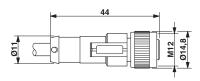
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Cable cross section



PUR halogen-free black [PUR]

Dimensioned drawing



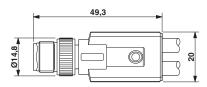
M12 x 1 socket, straight

Schematic diagram



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

Dimensioned drawing



Plug M12 x 1, Y distributor

Circuit diagram

