

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, 8-position, PE-X halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on free cable end, Cable length: 2 m, for outdoor applications, with high-grade steel knurl

#### Why buy this product

- ☑ Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C to +105°C



#### **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 773898
GTIN	4046356773898

#### Technical data

#### Dimensions

Length of cable	2 m	
Longin of dable	2111	

#### Ambient conditions

Ambient temperature (operation)	-40 °C 105 °C (Plug / socket)	
	-40 °C 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))	
Degree of protection	IP65	
	IP67	
	IP68	
	IP69K	

#### General

Rated current at 40°C	2 A
Rated voltage	30 V
Number of positions	8



#### Technical data

#### General

Insulation resistance	$\geq$ 100 M $\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

#### Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	Stainless steel

#### Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

#### Cable

Cable type	PE-X black
Cable type (abbreviation)	28X
Cable abbreviation	Li2X2X
Conductor cross section	8x 0.25 mm <sup>2</sup>
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm
Thickness, insulation	approx. 0.25 mm (Core insulation)
Wire colors	white, brown, green, yellow, gray, pink, blue, red
Overall twist	8 wires around filler to the core
Length of twist, overall twist	67 mm
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 1.3 mm
External cable diameter D	6.8 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m



#### Technical data

#### Cable

Traversing rate	3 m/s
Acceleration	10 m/s²
Cable weight	65 kg/km
Outer sheath, material	PE-X
Material, filler	PP yarn
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq$ 100 M $\Omega$ *km (at 20 °C)
Conductor resistance	$\leq$ 78 $\Omega$ /km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Flame resistance	According to DIN EN 60332-1-2
	According to DIN EN 50266-2-5
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
	According to DIN EN 50306
Other resistance	Resistance to fuels according to IEC 60811, 168 h at 70°C
	UV resistant According to DIN VDE 0276-605
Ambient temperature (operation)	-40 °C 105 °C (cable, fixed installation)
	-15 °C 105 °C (cable, flexible installation)
	20 °C ±5°C (cable, drag chain applications)

#### Drawings

Schematic diagram



Pin assignment M12 plug, 8-pos., A-coded, view plug side

Cable cross section



PE-X black [28X]

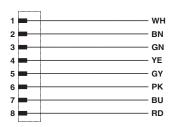


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Dimensional drawing

Plug, M12 x 1, straight, shielded

#### Circuit diagram



Contact assignment of the M12 plug

### Approvals

Approvals			
Approvals			
GL			
Ex Approvals			
Approval details			
GL	(GL)	http://exchange.dnv.com/tari/	6000213 HH

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