# imall

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!



# Contact us

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Sensor/actuator box, application: Standard, connection method: M12-SPEEDCON-socket Plastic, number of slots: 4, number of positions: 5, coding: A - standard, slot assignment: Double, status display: yes, pnp; master cable connection: Fixed connection 180°, PUR/PVC, cable length: 5 m, shielding: no

#### Why buy this product

- Safety in the field, thanks to molded housing and high degree of protection
- Flexible, distributed bundling of signals in one master cable
- Convenient: increased machine availability thanks to quick and easy diagnostics
- Save space: distributor box with double occupancy for two sensors in one slot
- Save time, thanks to installation with SPEEDCON fast locking system



#### Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 553926
GTIN	4046356553926

#### Technical data

#### General

Rated voltage	24 V DC	
Max. operating voltage U <sub>max</sub>	30 V DC	
Current carrying capacity per I/O signal	2 A	
Current carrying capacity per slot	4 A	
Total rated current	12 A	
Number of positions	5	
Number of slots	4	
Flammability rating according to UL 94	V0	
Sensor/actuator connection system	M12-SPEEDCON-socket	
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#### Ambient conditions

Degree of protection	IP65
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#### Technical data

#### Ambient conditions

	IP67
Ambient temperature (operation)	-25 °C 80 °C
	-40 °C 90 °C (for fixed installation)
	-5 °C 80 °C (for flexible installation)
Level Review Configuration	

#### Local diagnostics function

Local diagnostics	Supply voltage Green LED
	Status display I/O Yellow LED

#### Master cable connection data

Connection method	Fixed connection
Length of cable	5 m
Tightening torque slot sensor/actuator cable	0.4 Nm
Tightening torque of mounting screw for fixing the housing	0.5 Nm

#### Insulation material

Housing material	РВТ
Material of the moulding mass	PUR
Contact material	Cu alloy
Contact surface material	gold-plated
Contact carrier material	РА
Material of threaded sleeve	РВТ
O-ring material	NBR

#### Pin assignment

Slot/position = Wire color or connection	1 / 4 (A) = WH
	1 / 2 (B) = GY/PK
	2 / 4 (A) = GN
	2 / 2 (B) = RD/BU
	3 / 4 (A) = YE
	3 / 2 (B) = WH/GN
	4 / 4 (A) = GY
	4 / 2 (B) = BN/GN
	1-4 / 1 (+ 24 V) = BN
	1-4 / 3 (0 V) = BU
	1-4 / 5 (PE) = GN/YE

#### Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Connection in acc. with standard	CUL
Flammability rating according to UL 94	V0

Cable



#### Technical data

#### Cable

Cable type	PUR/PVC black
Cable type (abbreviation)	PUR
Cable abbreviation	LiYY11Y-HF
UL AWM style	20549
Conductor cross section	8x 0.5 mm² (Signal line)
	3x 1 mm <sup>2</sup> (power line)
AWG signal line	20
AWG power supply	17
Conductor structure signal line	28x 0.15 mm
Conductor structure, voltage supply	56x 0.15 mm
Core diameter including insulation	1.5 mm ±0.1 mm (Signal line)
	2.1 mm ±0.1 mm (power line)
Wire colors	brown, blue, green/yellow, white, green, yellow, gray, gray/pink, red/ blue, white/green, brown/green
Overall twist	Wires twisted in layers
External sheath, color	black RAL 9005
Inner sheath thickness	≥ 0.15 mm
Outer sheath thickness	≥ 0.38 mm
External cable diameter D	8.7 mm ±0.2 mm
Minimum bending radius, fixed installation	7.5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	1500000
Bending radius	87 mm
Traversing path 2 m	
Traversing rate	2 m/s
Cable weight	122 kg/km
Outer sheath, material	PUR
Material, inner sheath	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Nominal voltage, cable	300 V
Test voltage, cable	2000 V
Special properties	Silicone-free
Flame resistance	DIN EN 50265
Resistance to oil	according to VDE 0472 Part 803
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Ambient temperature (operation)	-40 °C 90 °C (cable, fixed installation)
	-5 °C 80 °C (cable, flexible installation)

**Environmental Product Compliance** 

China RoHS Environmentally friendly use period: unlimited = EFUP-e
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#### Technical data

#### **Environmental Product Compliance**

No hazardous substances above threshold values

#### Drawings

Schematic diagram



M12 slot, socket, 5-pos.

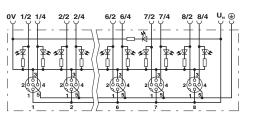
Cable cross section

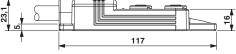


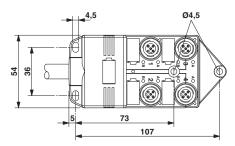
PUR/PVC black [PUR]

Circuit diagram

Dimensional drawing







### Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details



#### Approvals

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UL Recognized	17	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 118976
Nominal voltage UN		24 V	
Nominal current IN		4 A	
cUL Recognized	<b>LR</b> o	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 118976
Nominal voltage UN		24 V	
EAC	EAC		EAC-Zulassung
cULus Recognized	c <b>AL</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
cULus Recognized	c <b>AL</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	

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