# EXT-01G Series EXT-01G-SB/2501 600V LF

## Electronic equipment robot cable

### > Application

> Feature

- Appropriate for drag chain wiring for high-speed moving.
- Drag chain test 20 million times or more.

Oil and heat resistant PVC used for insulation.

Oil and heat resistant PVC used for sheath.

Flame resisting : UL VW-1, cUL FT1.

Extremely fine conductor use.

• Shielded Robot cable with UL and cUL at 600V 105°C. (Category : AVLV2, AVLV8)

Certification	UL AWM	cUL AWM
Applicable standard	UL 758	CSA C22.2 No.210
Official symbol	UL STYLE 2501	CSA AWM II A/B
Voltage rating	600V	600V
Temperature rating	105°C	105°C
Conductor	UL 758	CSA C22.2 No.210
Flame rating	VW-1	FT1

### Identification

Heat resistance

Oil resistance ★★★★★ Noise resistance \*\*\* Flame resistance  $\star \star \star \star$ Torsion resistance ★★★★★ Flexibility resistance  $\star \star \star \star \star$ 

\*\*\*\*\*

Drag chain

\*The characteristic is an aim.





Figures in  $\bigcirc$  indicate white numbering on black insulator.

\*Y/G indicates green core with yellow stripe (30~50%).





Construction figure Tinned coated annealed copper braid Oil, heat resistant PVC insulation Tape Special stranded annealed coppers Oil, heat resistant and flexible PVC sheath(Black)

### > Surface marking

TAIYO EXT-01G AWG LF R15 E67647 Mus AWM 2501 VW-1 IA/B 105°C 600V FT1

\*\* R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".



### > > > Meeting standard









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### Construction table

		Conductor		Oil, heat resistant PVC insulation				Approx. Elec		ctrical Characteristics		Allowable
No. of cores	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)	Outside diameter (inch)	Outside diameter (mm)	Overall diameter approx. (inch)	Overall diameter approx.(mm)	(lbs/1000ft) (kg/km)	Conductor resistance (Ω/km20°C)	Insulation resistance (MΩkm20°C)	Electrical strength (V/1min.)	ampacity (A)
2C						0.390	9.9	84(125)				14
3C	18	168/0.08	1.31	0.115	2.91	0.409	10.4	97(145)	loce than 21.0	more than 50	2000	14
4C	(0.823mm)	(168/3.2mil)	(52mil)	0.115	2.91	0.441	11.2	118(175)	1622 (11911 21.0	more than 50	2000	12
6C+1C						0.563	14.3	192(285)				10
2C						0.417	10.6	97(145)				18
3C	16	266/0.08	1.64	0.128	3.24	0.441	11.2	121(180)	loss than 13.7	more than 50	2000	18
4C	(1.30mm <sup>2</sup> )	(266/3.2mil)	(65mil)	0.120	0.24	0.472	12.0	141(210)	1035 (1011 10.1		2000	16
6C+1C						0.598	15.2	232(345)				12
2C						0.453	11.5	124(185)				24
3C	14	420/0.08	2.07	0.144	3.67	0.476	12.1	148(220)	loce than 8.62	more than 50	2000	24
4C	(2.08mm²)	(420/3.2mil)	(81mil)	0.144	0.07	0.516	13.1	175(260)	1000 (1011 0.0Z		2000	21
7C						0.646	16.4	282(420)				16

\*Core number mark "+1C" has the [Y/G] ground core of 14AWG size.

\*3C or 4C and 14AWG or more size has the [Y/G] ground core of an equal size.

\*The test of 2000V/5 minute besides the withstand voltage test on above mentioned UL standerd and the CSA standard is applied.

\*Please contact us which sizes are available.

#### > Allowable ampacity

The allowable ampacity of this catalog is a value at one in the air construction and the ambient temperature 30°C.

·Allowable ampacity is calculated based on JCS0168.

·Allowable ampacity is calculated excluding grounding conductor.

Please multiply the following adjustment factors by the ambient temperature.

Adjustment	factore (at	ambiont	tomporaturo)
Aujustinent	ιασισισιαι	annoient	temperature)

Ambient temperature (°C)	30	40	50	60	70	80	90	100
Adjustment factors	1.00	0.93	0.86	0.77	0.68	0.58	0.45	0.26

### > Movement characteristic

*)1	Bend	U-shaped	90°	Twist		
Bending	Denu	turn-back	bending	Straight	Bend	
А	A	S	А	A	A	

- \*)1 It is C when overall diameter of the cable is 20mm or more, and D when overall diameter of the cable is 30mm or more.
- \*)2 When overall diameter of the cable is 20mm or less.
- \*The longevity of the cable inside a drag chain is dependent on the travel distance. Please consult our Sales Department when wiring a travel distance of 5m or greater.

#### > Oil resistance

Insulating oil	Lubricating oil	Cutting oil I	Cutting oil II	
А	A	В	В	
WA Oin the				_

\*A~C in the table indicate the characteristics below.

A:There is no problem on practical use at all. B:Deterioration slightly no problem almost on practical use. C:lt is sometimes deteriorated to some degree, and not possible to use it.

### > > > Meeting standard



\*)2 Move bending ling С

Examination's time: S= More than 20 million times C= More than 3 million times

A= More than 10 million times D= More than 1 million times B= More than 5 million times E= More than 0.5 million times

Hydraulic oil	Grease
В	В

Ь EXT-01G-SB/2501 600V