

# EXT-01G/2501 600V LF

## Electronic equipment robot cable

Heat resistance ★★★★★  
Oil resistance ★★★★★  
Noise resistance ★  
Flame resistance ★★★★★  
Torsion resistance ★★★★★  
Flexibility resistance ★★★★★  
Drag chain ★★★★★★  
※The characteristic is an aim.

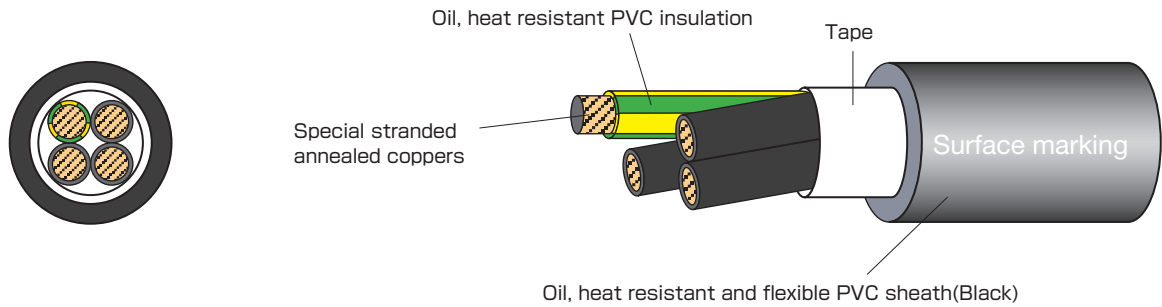
➤ Application

- Appropriate for drag chain wiring for high-speed moving.
- Drag chain test 20 million times or more.
- Robot cable with UL and cUL at 600V 105°C. (Category : AVLV2, AVLV8)

➤ Feature

- Extremely fine conductor use.
- Oil and heat resistant PVC used for insulation.
- Oil and heat resistant PVC used for sheath.
- Flame resisting : UL VW-1, cUL FT1.

➤ Construction figure



➤ Surface marking



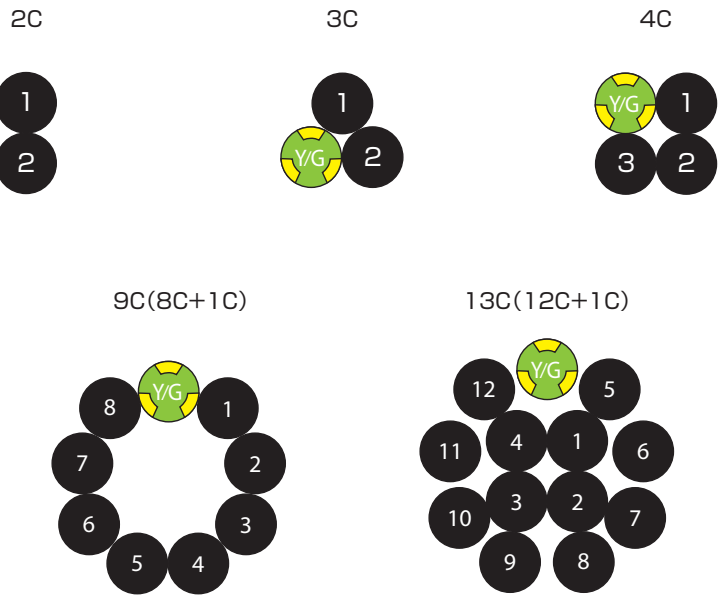
※R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".

>>> Meeting standard

Certification	UL AWM	cUL AWM
Applicable standard	UL 758	CSA C22.2 No.210
Official symbol	UL STYLE 2501	CSA AWM IIA/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



Figures in ○ indicate white numbering on black insulator.

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





Electronic equipment robot cable

> Construction table

No. of cores	Conductor			Oil,heat resistant PVC insulation		Oil, heat resistant flexible PVC sheath		Approx. weight (lbs/1000ft) (kg/km)	Electrical Characteristics			Allowable ampacity (A)
	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)	Outside diameter (inch)	Outside diameter (mm)	Overall diameter approx. (inch)	Overall diameter approx. (mm)		Conductor resistance (Ω /km20℃)	Insulation resistance (MΩkm20℃)	Electrical strength (V/1 min.)	
2C						0.366	9.3	67(100)				14
3C						0.386	9.8	81(120)				14
4C						0.413	10.5	94(140)				12
6C+1C	18 (0.823mm)	168/0.08 (168/3.2mil)	1.31 (52mil)	0.115	2.91	0.531	13.5	158(235)	less than 21.8	more than 50	2000	9.9
8C+1C						0.602	15.3	198(295)				9.1
10C+1C						0.626	15.9	208(310)				8.3
12C+1C						0.654	16.6	235(350)				7.8
20C+1C						0.787	20.0	356(530)				6.6
30C+1C						0.961	24.4	548(815)				5.7
2C						0.394	10.0	81(120)				18
3C						0.413	10.5	97(145)				18
4C						0.445	11.3	118(175)				16
6C+1C	16 (1.30mm)	266/0.08 (266/3.2mil)	1.64 (65mil)	0.128	3.24	0.567	14.4	195(290)	less than 13.7	more than 50	2000	12
10C+1C						0.673	17.1	259(385)				10
12C+1C						0.705	17.9	296(440)				10
20C+1C						0.945	24.0	504(750)				8.6
30C+1C						1.043	26.5	702(1045)				7.4
40C+1C						1.157	29.4	863(1285)				6.7
2C						0.425	10.8	101(150)				24
3C						0.449	11.4	124(185)				24
4C						0.488	12.4	148(220)				21
7C	14 (2.08mm)	420/0.08 (420/3.2mil)	2.07 (81mil)	0.144	3.67	0.614	15.6	242(360)	less than 8.62	more than 50	2000	16
11C						0.736	18.7	333(495)				14
13C						0.776	19.7	380(565)				13
21C						1.039	26.4	719(1070)				11

※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 standard 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℃.
- 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 factors(at ambient temperature)

Ambient temperature(℃)	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 Bending	Bend	U-shaped turn-back	90° bending	Twist		* ) 2 Move bending
				Straight	Bending	
A	A	S	A	A	A	C

Examination's time:  
S= More than 20 million times  
A= More than 10 million times  
B= More than 5 million times  
C= More than 3 million times  
D= More than 1 million times  
E= More than 0.5 million times

- \* ) 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	Hydraulic oil	Grease
A	A	B	B	B	B

※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:It is sometimes deteriorated to some degree, and not possible to use it.