

# 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.

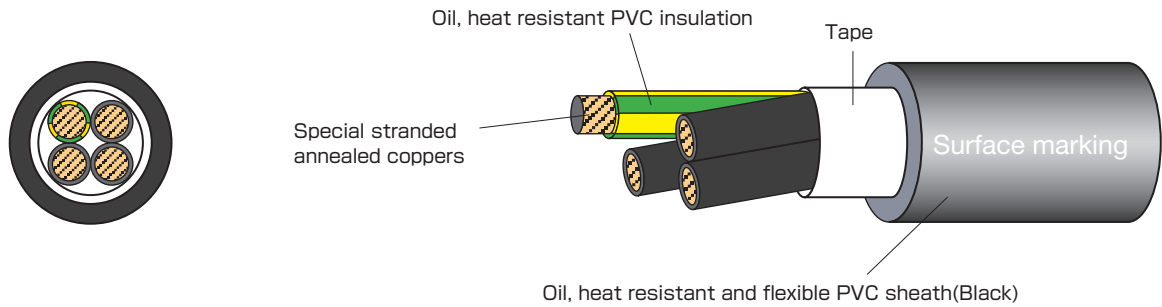
➤ Application

- 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



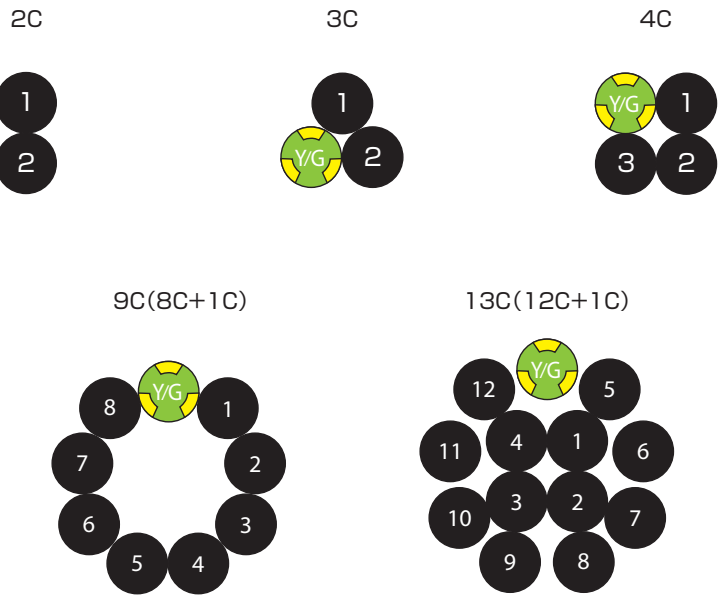
※R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".

>>> 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

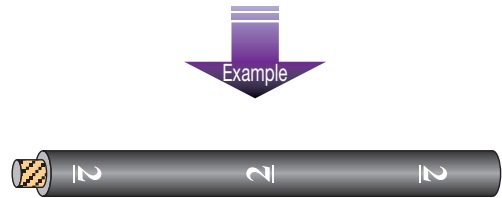


➤ Identification



Figures in ○ indicate white numbering on black insulator.

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



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> 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 (MΩ km20℃)	Electrical strength (V/1min.)	
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						0.531	13.5	158(235)				9.9
8C+1C	18	168/0.08	1.31	0.115	2.91	0.602	15.3	198(295)	less than 21.8	more than 50	2000	9.1
10C+1C	(0.823mm)	(168/3.2mil)	(52mil)			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						0.567	14.4	195(290)				12
10C+1C	16	266/0.08	1.64	0.128	3.24	0.673	17.1	259(385)	less than 13.7	more than 50	2000	10
12C+1C	(1.30mm)	(266/3.2mil)	(65mil)			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	420/0.08	2.07	0.144	3.67	0.614	15.6	242(360)	less than 8.62	more than 50	2000	16
11C	(2.08mm)	(420/3.2mil)	(81mil)			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 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℃.
- 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 Rotary bending	Bending	U-shaped turn-back	90° bending	Twist		*) 2 Move bending	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
				Straight	Bending			
A	A	S	A	A	A	C		

- \*) 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.