

EXT-01G/2501 600V LF

Electronic equipment robot cable

- Heat resistance ★★★★★
 - Oil resistance ★★★★★
 - Noise resistance ★
 - Flame resistance ★★★★★
 - Torsion resistance ★★★★★
 - Flexibility resistance ★★★★★
 - Cable carrier ★★★★★
- ※The characteristic is an aim.

Meeting standard

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



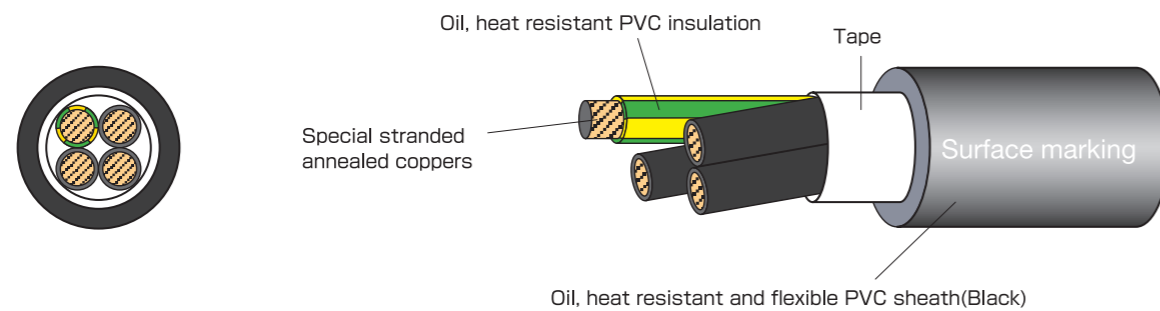
Application

- Appropriate for cable bare wiring for high-speed moving.
- Cable Bear test 20 million times or more.
- Robot cable with UL and cUL at 600V 105°C. (Category : AVL2, AVL8)

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.

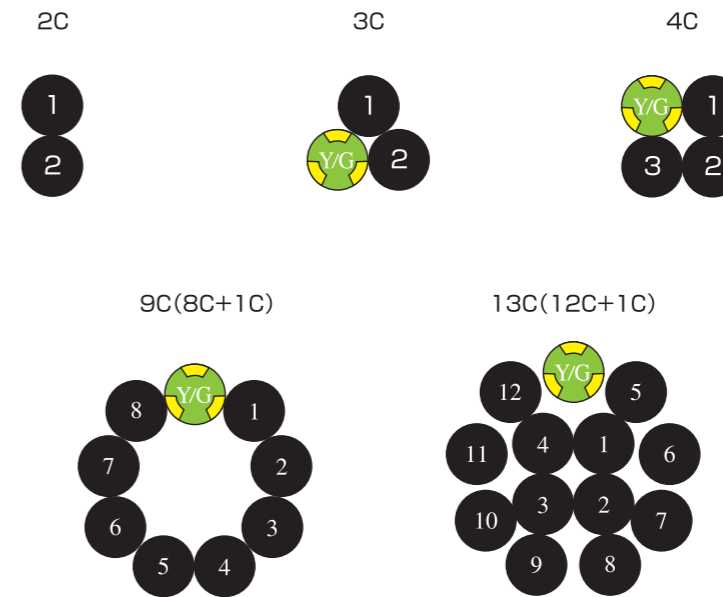
Construction figure



Surface marking



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°C)	Insulation resistance (MΩkm20°C)	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°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 factors (at ambient 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 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 cable bearing 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.