

600V EXT-II/2501 LF

Electronic equipment robot cable

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

>>> Meeting standard



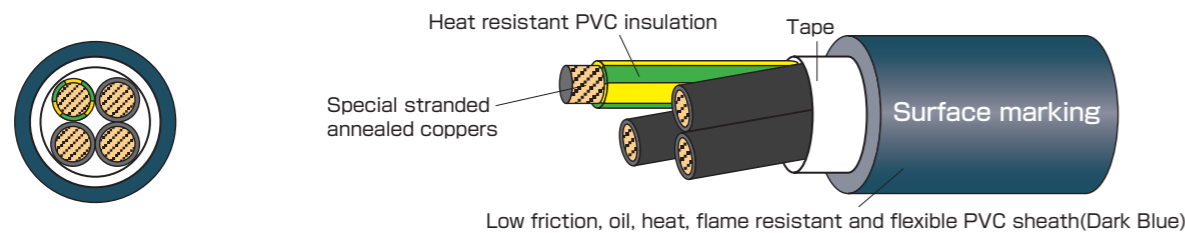
> Application

- Appropriate for drag chain wiring for high-speed moving.
- Drag chain test 50 million times or more. (or more ability 100 million times)
- Robot cable with UL and cUL at 600V 105°C. (Category : AVLV2, AVLV8)

> Feature

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

> Construction figure

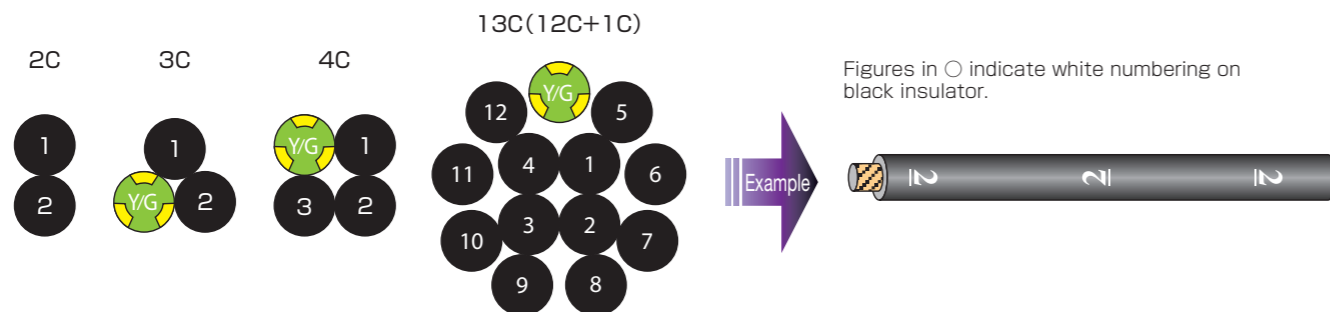


> Surface marking



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

> Identification



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

> Standard sales length

100m
(Sales by short length is available for large sizes. Please contact us which sizes are available.)

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

> Construction table

No. of cores	Conductor			Heat-resistant PVC insulation		Low friction, oil, heat, flame 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/1min.)			
2C								0.378	9.6	67(100)			13	
3C								0.398	10.1	81(120)			13	
4C								0.429	10.9	94(140)			11	
6C+1C	18 (0.823mm)	168/0.08 (168/3.2mil)	1.31 (52mil)	0.118	3.0			0.547	13.9	161(240)	less than 24.0	more than 50	2000	9.5
8C+1C							0.618	15.7	198(295)	8.7				
10C+1C							0.650	16.5	222(330)	8.0				
12C+1C							0.681	17.3	245(365)	7.5				
20C+1C							0.819	20.8	373(555)	6.3				
30C+1C		0.996	25.3	544(810)	5.5									
2C								0.406	10.3	81(120)			17	
3C								0.425	10.8	97(145)			17	
4C								0.461	11.7	118(175)			15	
6C+1C	16 (1.30mm)	266/0.08 (266/3.2mil)	1.64 (65mil)	0.130	3.3			0.583	14.8	192(285)	less than 15.5	more than 50	2000	12
10C+1C							0.697	17.7	269(400)	10				
12C+1C							0.732	18.6	309(460)	9.6				
20C+1C							0.933	23.7	497(740)	8.1				
30C+1C							1.079	27.4	692(1030)	7.0				
40C+1C		1.197	30.4	874(1300)	6.3									
2C								0.437	11.1	97(145)			23	
3C								0.461	11.7	121(180)			23	
4C								0.500	12.7	148(220)			20	
7C	14 (2.08mm)	420/0.08 (420/3.2mil)	2.07 (81mil)	0.150	3.8			0.634	16.1	242(360)	less than 9.75	more than 50	2000	16
11C							0.760	19.3	343(510)	13				
13C							0.795	20.2	393(585)	12				
21C							1.024	26.0	652(970)	10				

●Ground core

Size (AWG)	Conductor		Heat-resistant PVC insulation	
	Construction (Line/mm)	Outside diameter (mm)	Thickness (mm)	Outside diameter (mm)
14	420/0.08	2.07	0.85	3.8

- ※Core number mark "+1C" has the [Y/G] ground core of 14AWG size.
- ※3 or 4 and 14AWG 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.

> 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	SS	A	A	A	C

Examination's time:
SS= More than 50 million times B= More than 5 million times
S= More than 20 million times C= More than 3 million times
A= More than 10 million times D= More than 1 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.