

# 300V EXT-II/2517 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



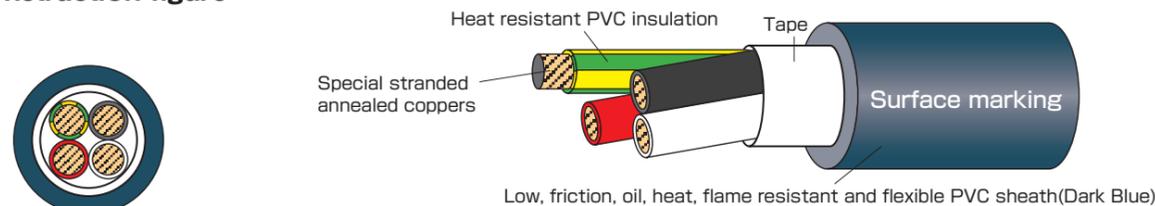
### > Application

- 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 300V 105°C. (Category : AVL2, AVL8)

### > 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)".

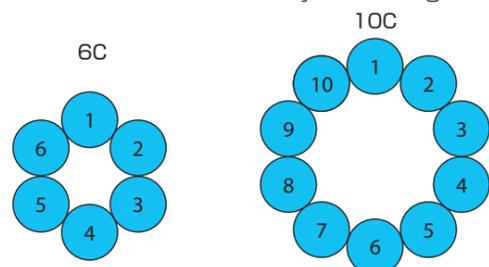
### > Identification

·2C, 3C, 4C



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

·6 cores or more is identified by numbering



Figures in ○ indicate black numbering on light blue insulator.



### > 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 2517	CSA AWM II A/B
Voltage rating	300V	300V
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						0.240	6.1	30(45)				9.6
3C						0.252	6.4	37(55)				9.8
4C						0.272	6.9	44(65)				8.3
6C						0.327	8.3	60(90)				6.4
8C	20 (0.518mm)	119/0.08 (119/3.2mil)	1.1 (43mil)	0.079	2.0	0.382	9.7	84(125)	less than 39.1	more than 10	2000	5.9
10C						0.433	11.0	104(155)				5.6
12C						0.425	10.8	111(165)				5.1
16C						0.476	12.1	141(210)				4.6
20C						0.524	13.3	171(255)				4.3
30C						0.661	16.8	272(405)				3.8
2C						0.256	6.5	37(55)				12
3C						0.272	6.9	44(65)				12
4C						0.299	7.6	57(85)				11
6C						0.350	8.9	77(115)				8.4
8C	18 (0.823mm)	168/0.08 (168/3.2mil)	1.31 (52mil)	0.087	2.21	0.413	10.5	104(155)	less than 24.0	more than 10	2000	7.8
10C						0.476	12.1	131(195)				7.4
12C						0.469	11.9	144(215)				6.7
16C						0.516	13.1	181(270)				6.1
20C						0.575	14.6	225(335)				5.7
30C						0.728	18.5	353(525)				5.1
2C						0.291	7.4	47(70)				16
3C						0.307	7.8	60(90)				16
4C	16 (1.30mm)	266/0.08 (266/3.2mil)	1.64 (65mil)	0.100	2.54	0.331	8.4	77(115)	less than 15.5	more than 10	2000	14
6C						0.398	10.1	108(160)				11
8C						0.469	11.9	148(220)				10
10C						0.531	13.5	178(265)				9.6
2C	14 (2.08mm)	420/0.08 (420/3.2mil)	2.07 (81mil)	0.117	2.97	0.323	8.2	64(95)	less than 9.75	more than 10	2000	22
3C						0.343	8.7	84(125)				22
4C						0.382	9.7	104(155)				19

※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 Rotary bending	Bending	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.