EXT-Type Ⅱ Series

600V EXT-Ⅱ/2501 LF

Electronic equipment robot cable

Heat resistance	★★★★★
Oil resistance	★★★★★
Noise resistance	★
Flame resistance	★★★★
Torsion resistance	★★★★★
Flexibility resistance	★★★★★
Cable carrier	★★★★★★★

※The characteristic is an aim.

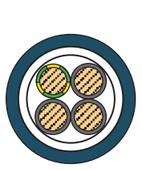
➢ Application

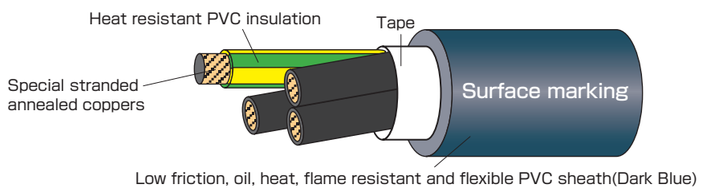
- Appropriate for cable chain wiring for high-speed moving.
- Cable chain test 50 million times or more. (or more ability 100 million times)
- Robot cable with UL and cUL at 600V 105℃. (Category : AVLV2, AVLV8)

➢ 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





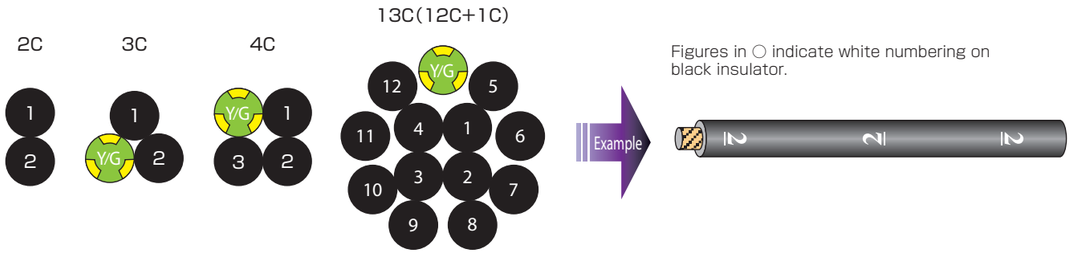
Low friction, oil, heat, flame resistant and flexible PVC sheath(Dark Blue)

➢ Surface marking

—600V EXT-Ⅱ TAIYO □□AWG LF R15 E67647 AWM 2501 105℃ VW-1 AWM ⅡA/B 105℃ 600V FT1—

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

➢ Identification



Figures in ○ indicate white numbering on black insulator.

※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.)

➢➢➢ 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℃	105℃
Conductor	UL 758	CSA C22.2 No.210
Flame rating	VW-1	FT1

➢ Construction table

No. of cores	Conductor Size (AWG)	Conductor Construction (Line/mm)	Conductor Outside diameter (mm)	Heat-resistant PVC insulation Outside diameter (inch)	Heat-resistant PVC insulation Outside diameter (mm)	Low friction, oil, heat, flame resistant flexible PVC sheath Overall diameter approx. (inch)	Low friction, oil, heat, flame resistant flexible PVC sheath Overall diameter approx. (mm)	Approx. weight (lbs/1000ft) (kg/km)	Electrical Characteristics Conductor resistance (Ω/km20℃)	Electrical Characteristics Insulation resistance (MΩkm20℃)	Electrical Characteristics Electrical strength (V/1min.)	Allowable ampacity (A)
2C	18 (0.823㎟)	168/0.08 (168/3.2mil)	1.31 (52mil)	0.118	3.0	0.378	9.6	67(100)	less than 24.0	more than 50	2000	13
3C						0.398	10.1	81(120)				13
4C						0.429	10.9	94(140)				11
6C+1C						0.547	13.9	161(240)				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	16 (1.30㎟)	266/0.08 (266/3.2mil)	1.64 (65mil)	0.130	3.3	0.406	10.3	81(120)	less than 15.5	more than 50	2000	17
3C						0.425	10.8	97(145)				17
4C						0.461	11.7	118(175)				15
6C+1C						0.583	14.8	192(285)				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	14 (2.08㎟)	420/0.08 (420/3.2mil)	2.07 (81mil)	0.150	3.8	0.437	11.1	97(145)	less than 9.75	more than 50	2000	23
3C						0.461	11.7	121(180)				23
4C						0.500	12.7	148(220)				20
7C						0.634	16.1	242(360)				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

Conductor Size (AWG)	Conductor Construction (Line/mm)	Conductor Outside diameter (mm)	Heat-resistant PVC insulation Thickness (mm)	Heat-resistant PVC insulation 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℃.
·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 Straight	Twist Bending	＊)2 Move bending
A	A	SS	A	A	A	C

Examination's time:
SS= More than 50 million times
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

＊)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.