

600V EXT-II-SB/2501 LF

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

※The characteristic is an aim.

Electronic equipment robot cable



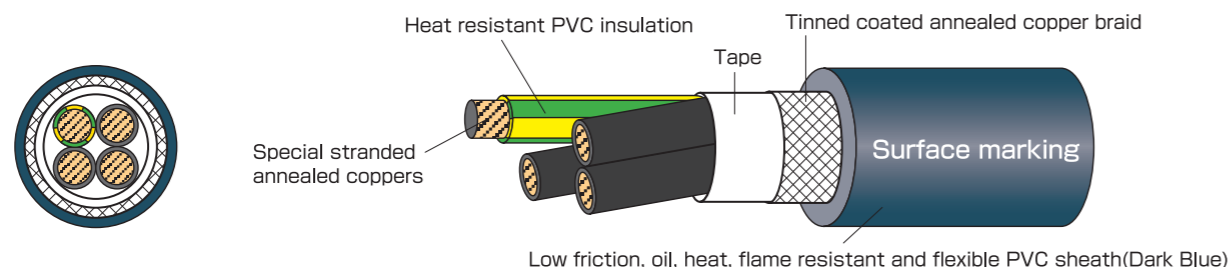
> Application

- Appropriate for cable bare wiring for high-speed moving.
- Cable Bear test 50 million times or more. (or more ability 100 million times)
- Shielded 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.

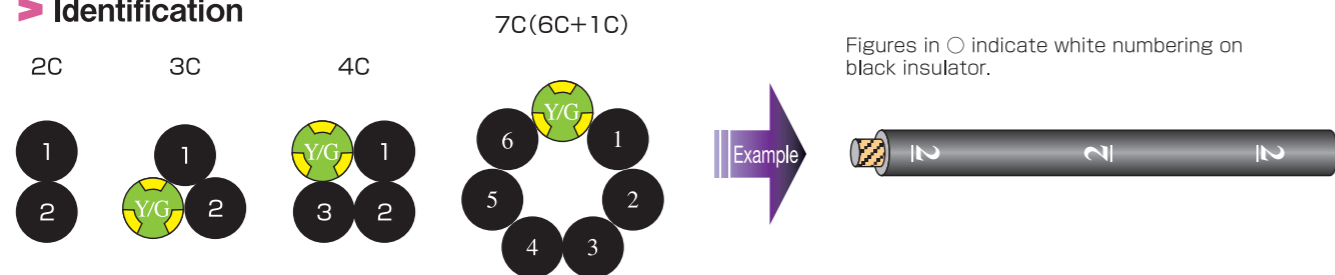
> Construction figure



> Surface marking



> 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 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 |

> 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 | 18 (0.823mm) | 168/0.08 (168/3.2mil) | 1.31 (52mil) | 0.118 | 3.0 | 0.402 | 10.2 | 84(125) | less than 24.0 | more than 50 | 2000 | 13 |
| 3C | | | | | | 0.421 | 10.7 | 97(145) | | | | 13 |
| 4C | | | | | | 0.457 | 11.6 | 118(175) | | | | 12 |
| 6C+1C | 16 (1.30mm) | 266/0.08 (266/3.2mil) | 1.64 (65mil) | 0.130 | 3.3 | 0.579 | 14.7 | 195(290) | less than 15.5 | more than 50 | 2000 | 9.6 |
| 2C | | | | | | 0.429 | 10.9 | 97(145) | | | | 17 |
| 3C | | | | | | 0.453 | 11.5 | 121(180) | | | | 17 |
| 4C | 0.488 | 12.4 | 144(215) | 15 | | | | | | | | |
| 6C+1C | 14 (2.08mm) | 420/0.08 (420/3.2mil) | 2.07 (81mil) | 0.150 | 3.8 | 0.614 | 15.6 | 228(340) | less than 9.75 | more than 50 | 2000 | 12 |
| 2C | | | | | | 0.465 | 11.8 | 121(180) | | | | 23 |
| 3C | | | | | | 0.488 | 12.4 | 148(220) | | | | 23 |
| 4C | 0.528 | 13.4 | 175(260) | 20 | | | | | | | | |
| 7C | | | | | | 0.665 | 16.9 | 282(420) | | | | 16 |

●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 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.