>> > Meeting standard

EXT-01G-SB/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. |

Application

- Appropriate for cable bare wiring for high-speed moving.
- Cable Bear test 20 million times or more.
- Shielded Robot cable with UL and cUL at 600V 105°C. (Category: AVLV2, AVLV8)

> 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 Tinned coated annealed copper braid Oil, heat resistant PVC insulation Tape Special stranded annealed coppers Surface marking

Oil, heat resistant and flexible PVC sheath(Black)

Surface marking

TAIYO EXT-01G AWG LF R15 E67647 RW S AWM 2501 VW-1 IIA/B 105°C 600V FT1

VW-1





Identification

2C

Flame rating

30







4C



Figures in \bigcirc indicate white numbering on black insulator.

*Y/G indicates green core with yellow stripe (30 \sim 50%).





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Construction table

| | Conductor | | | Oil, heat resistant PVC insulation | | Oil, heat resistant flexible PVC sheath | | Approx. weight | Electrical Characteristics | | | Allowable |
|--------------|----------------|---------------------------|-----------------------|---------------------------------------|-----------------------------|---|------------------------------|----------------|---------------------------------|----------------------------------|-------------------------------------|-----------------|
| No. of cores | Size (AWG) | Construction (Line/mm) | Outside diameter (mm) | Outside diameter (inch) | Outside diameter (mm) | Overall diameter approx.(inch) | Overall diameter approx.(mm) | (lbs/1000ft) | Conductor resistance (Ω/km20°C) | Insulation resistance (MΩkm20°C) | Electrical strength (V/1min.) | ampacity (A) |
| 2C | | | | | | 0.390 | 9.9 | 84(125) | | | | 14 |
| 3C | 18 | 168/0.08 | 1.31 | 0.115 | 2.91 | 0.409 | 10.4 | 97(145) | less than 21.8 | more than 50 | 2000 | 14 |
| 4C | (0.823mm) | (168/3.2mil) | (52mil) | 0.115 | 2.91 | 0.441 | 11.2 | 118(175) | 1622 (11911 71.0 | Inore than 50 | | 12 |
| 6C+1C | | | | | | 0.563 | 14.3 | 192(285) | | | | 10 |
| 2C | | | | | | 0.417 | 10.6 | 97(145) | | | | 18 |
| 3C | 16 | 266/0.08 | 1.64 | 0.128 | 3.24 | 0.441 | 11.2 | 121(180) | less than 13.7 | more than 50 | 2000 | 18 |
| 4C | (1.30 mm) | (266/3.2mil) | (65mil) | 0.120 | 0.24 | 0.472 | 12.0 | 141(210) | ICOS (IIGII TO.7 | Inore train 50 | 2000 | 16 |
| 6C+1C | | | | | | 0.598 | 15.2 | 232(345) | | | | 12 |
| 2C | | | | | | 0.453 | 11.5 | 124(185) | | | | 24 |
| 3C | 14 | 420/0.08 | 2.07 | 0.144 | 3.67 | 0.476 | 12.1 | 148(220) | less than 8.62 | more than 50 | 2000 | 24 |
| 4C | $(2.08mm^{2})$ | (420/3.2mil) | (81mil) |) 0.144 | 0.07 | 0.516 | 13.1 | 175(260) | 1000 111011 0.02 | IIIOIC (IIIII JU | 2000 | 21 |
| 7C | | | | | | 0.646 | 16.4 | 282(420) | | | | 16 |

**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

·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 | Bend | U-shaped | 90° | Twist | | *)2 | Examination's time: | |
|---------|------|-----------|---------|----------|---------|--------------|---|------------------------------|
| Bending | benu | turn-back | bending | Straight | Bending | Move bending | S= More than 20 million times A= More than 10 million times | |
| Α | Α | S | Α | Α | Α | С | B= More than 5 million times | E= More than 0.5 million tin |

*) 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 |
|----------------|-----------------|---------------|----------------|---------------|--------|
| Α | A | В | В | В | В |

※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.

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