SUNLIGHT DX LF

Multipurpose twisted pair type instrumentation cable

Multi core cable		Multi pair cable	
Heat resistance	★★★	Heat resistance	★★★
Oil resistance	★★★★★	Oil resistance	★★★★★
Noise resistance	★	Noise resistance	★★
Flame resistance	★★★★	Flame resistance	★★★★
Flexibility	★★★	Flexibility	★★★
non-migratory	★★★★★	non-migratory	★★★★★
Transport property	★	Transport property	★

※The characteristic is an aim. ※The characteristic is an aim.

> Application

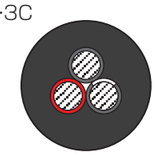
- Cable for a terminal equipment, metering equipment, communications equipment, the internal wiring of every other electrons, electric apparatuses.
- Oil, flexibility of use.
  Cable for RS232C.
- UL and cUL AWM at 150V, 80℃(Category : AVLV2, AVLV8).

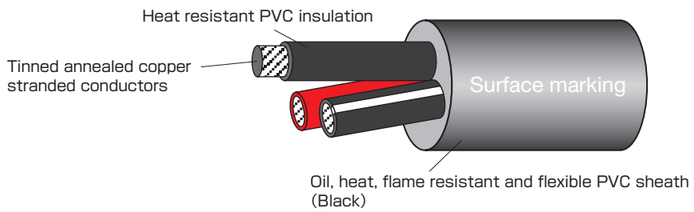
> Feature

- Heat resistant PVC for insulation.
- Oil, heat, flame retardant and soft PVC for sheath.
- Sheath material is non-migratory against ABS and PS resin.
- Chemical, water, abrasion, cold resistance PVC for sheath.
- Flame resisting : UL VW-1, cUL FT1(1P.3C: FT2).

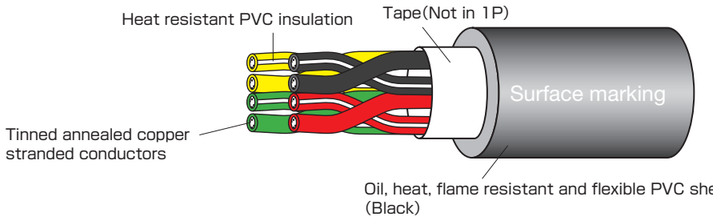
> Construction figure

·3C





·1P~50P



> Surface marking

(1) 1pair, 3core cables

SUNLIGHT DX □□AWG(○○) E67647 AWM 2936 80℃ 150V FT2 AWM ⅡA 80℃ 150V FT2 TAIYO LF R15

(2) 2pair~50pair cables

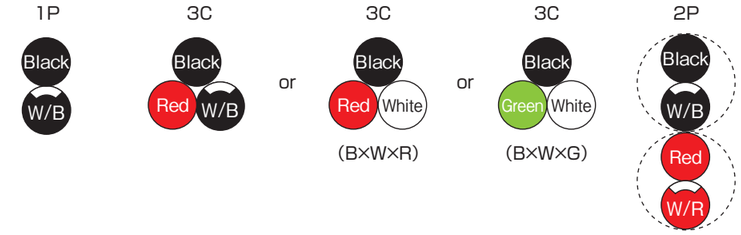
SUNLIGHT DX □□AWG(○○) E67647 AWM 2936 80℃ 150V VW-1 AWM ⅡA 80℃ 150V FT1 TAIYO LF R15

> > > Meeting standard

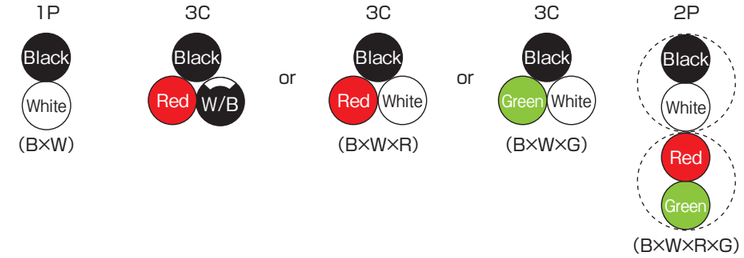
Certification	UL AWM	cUL AWM
Applicable standard	UL 758	CSA C22.2 No.210
Official symbol	UL STYLE 2936	CSA AWM ⅡA
Voltage rating	150V	150V
Temperature rating	80℃	80℃
Conductor	UL 758	CSA C22.2 No.210
Flame rating	1P,3C／FT2 2P~50P／VW-1	1P,3C／FT2 2P~50P／FT1

> Identification

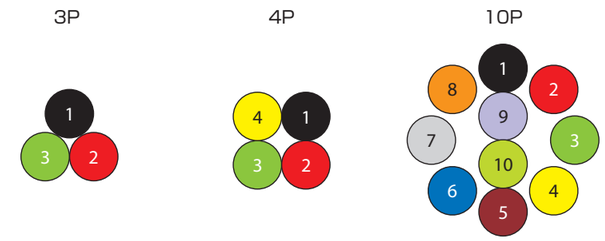
·25AWG(0.2mm²), 23AWG(0.3mm²)



·21AWG(0.5mm²) (Following identification table isn't applied to 1P & 2P.)



·3P~



Figures in ○ indicate pair number in the identification table.

●Identification table

Pair number	1	2	3	4	5	6	7	8	9	10
No.1 kind line	Black	Red	Green	Yellow	Brown	Blue	Gray	Orange	Purple	Bright Green
No.2 kind line	White/Black	White/Red	White/Green	White/Yellow	White/Brown	White/Blue	White/Gray	White/Orange	White/Purple	White/B Green
Pair number	11	12	13	14	15	16	17	18	19	20
No.1 kind line	Peach	Sky	White	Black/Green	Black/Yellow	Black/Brown	Black/Blue	Black/Gray	Black/Orange	Black/Purple
No.2 kind line	White/Peach	White/Sky	Black/White	Red/Green	Red/Yellow	Red/Brown	Red/Blue	Red/Gray	Red/Orange	Red/Purple
Pair number	21	22	23	24	25	26	27	28	29	30
No.1 kind line	Black/Grass	Black/Peach	Black/Sky	Black/Red	Green/Black	Green/White	Green/Brown	Green/Blue	Green/Gray	Green/Orange
No.2 kind line	Red/Grass	Red/Peach	Red/Sky	Green/Red	Yellow/Black	Yellow/White	Yellow/Brown	Yellow/Blue	Yellow/Gray	Yellow/Orange
Pair number	31	32	33	34	35	36	37	38	39	40
No.1 kind line	Green/Purple	Green/Grass	Green/Peach	Green/Sky	Brown/Black	Brown/White	Brown/Red	Brown/Green	Brown/Yellow	Brown/Gray
No.2 kind line	Yellow/Purple	Yellow/Grass	Yellow/Peach	Yellow/Sky	Blue/Black	Blue/White	Blue/Red	Blue/Green	Blue/Yellow	Blue/Gray
Pair number	41	42	43	44	45	46	47	48	49	50
No.1 kind line	Brown/Orange	Brown/Purple	Brown/Grass	Brown/Peach	Brown/Sky	Gray/Black	Gray/White	Gray/Red	Gray/Green	Gray/Yellow
No.2 kind line	Blue/Orange	Blue/Purple	Blue/Grass	Blue/Peach	Blue/Sky	Orange/Black	Orange/White	Orange/Red	Orange/Green	Orange/Yellow

White/Black indicates black core with white stripe.

SUNLIGHT DX LF

Multipurpose twisted pair type instrumentation cable

Construction table

No. of cores No. of pairs	Conductor			Heat-resistant PVC insulation		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℃)	Insulation resistance (MΩkm20℃)	Electrical strength (V/1min.)	
1P						0.122	3.1	9(13)				5.2
3C						0.130	3.3	10(15)				4.4
2P						0.189	4.8	17(26)				4.4
3P						0.201	5.1	21(31)				3.8
4P						0.224	5.7	26(38)				3.4
5P						0.236	6.0	30(45)				3.1
6P						0.272	6.9	40(60)				3.0
7P						0.272	6.9	44(65)				2.8
8P						0.291	7.4	47(70)				2.7
10P	25 (0.2㎟)	7/0.18 (7/7.1mil)	0.54 (21mil)	0.042	1.06	0.327	8.3	57(85)	less than 113	more than 50	1500	2.5
12P						0.350	8.9	67(100)				2.4
○13P						0.366	9.3	74(110)				2.3
○15P						0.374	9.5	81(120)				2.2
18P						0.413	10.5	97(145)				2.1
20P						0.429	10.9	108(160)				2.0
○25P						0.469	11.9	131(195)				1.9
30P						0.516	13.1	155(230)				1.8
○40P						0.579	14.7	202(300)				1.6
○50P						0.650	16.5	245(365)				1.5
1P						0.150	3.8	13(20)				7.4
3C						0.157	4.0	16(24)				6.3
2P						0.228	5.8	25(37)				6.3
3P						0.264	6.7	34(50)				5.5
4P						0.283	7.2	40(60)				4.9
5P						0.311	7.9	47(70)				4.6
6P						0.343	8.7	60(90)				4.3
7P						0.343	8.7	64(95)				4.0
8P						0.370	9.4	74(110)				3.9
10P	23 (0.3㎟)	12/0.18 (12/7.1mil)	0.7 (28mil)	0.051	1.3	0.413	10.5	91(135)	less than 66.3	more than 50	1500	3.6
12P						0.445	11.3	108(160)				3.4
○13P						0.469	11.9	114(170)				3.4
15P						0.480	12.2	128(190)				3.2
○18P						0.524	13.3	151(225)				3.0
20P						0.547	13.9	168(250)				2.9
25P						0.606	15.4	208(310)				2.7
30P						0.654	16.6	242(360)				2.5
○40P						0.736	18.7	312(465)				2.3
○50P						0.835	21.2	390(580)				2.1
1P						0.165	4.2	17(26)				10
3C						0.173	4.4	22(32)				8.5
2P						0.260	6.6	37(55)				8.6
3P						0.280	7.1	44(65)				7.3
4P						0.303	7.7	57(85)				6.5
5P						0.339	8.6	71(105)				6.1
6P						0.366	9.3	81(120)				5.8
7P						0.366	9.3	87(130)				5.4
8P	21 (0.5㎟)	20/0.18 (20/7.1mil)	0.9 (35mil)	0.059	1.5	0.390	9.9	101(150)	less than 39.8	more than 50	1500	5.2
10P						0.461	11.7	128(190)				4.9
12P						0.500	12.7	148(220)				4.7
15P						0.535	13.6	178(265)				4.3
○20P						0.622	15.8	239(355)				3.9
○25P						0.669	17.0	286(425)				3.6
○30P						0.728	18.5	336(500)				3.4
○40P						0.827	21.0	444(660)				3.1
○50P						0.933	23.7	548(815)				2.9

○ : Indicates make-to-order products.

※The size indicated within parenthesis in the above table, describes the appropriate size of Japanese domestic use.

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.

·Please multiply the following correction coefficient by the ambient temperature.

●Adjustment factors(at ambient temperature)

Ambient temperature(℃)	30	40	50	60	70	80	90	100
Adjustment factors	1.00	0.89	0.77	0.63	0.45	—	—	—

Standard sales length

100m

(Sale by cutting short length is available Min.5 Pairs.)

Electrical property

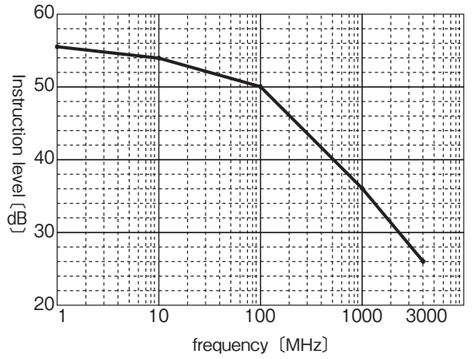
Electrical property

Capacitance, Characteristic impedance and Delay time are a reference value, not the guarantee value.

Size (㎟)	Conductor resistance (20℃Ω/km)	Dielectric withstand voltage (V/min.)	Conductor resistance (20℃MΩ-km)	Capacitance (1kHz approx.nF/km)	Characteristic impedance (10MHz approx.Ω)	Delay time (approx.ns/m)
25 (0.2mm²)	less than 113	1500	more than 50	110	70	6
23 (0.3mm²)	less than 66.3	1500	more than 50	110	70	6
21 (0.5mm²)	less than 39.8	1500	more than 50	110	70	6

SUNLIGHT SX, DX Cable

Measurement of inductance noise during twisted pairs.



SUNLIGHT SX, DX Characteristic impedance