

#### APPLICATION

- For indoor and outdoor installation, on racks and tray, in dry and wet locations, and suitable for direct burial.
- For Transmission of analogue and digital signals in instrument and control systems; allowed for use in hazardous classified locations class I and class II division 2 acc. to NEC 501-4(b) and NEC 502-4(b)
- Not allowed for direct connection to low impedance sources, e.g. Public mains electricity supply.

#### STANDARDS

PLTC TO UL 13	Power-limited tray cable, per NFPA 70, NEC Article 725
ITC TO UL2250	Instrumentation tray cable, per NFPA 70, NEC Article 727.

#### CONSTRUCTION DETAILS

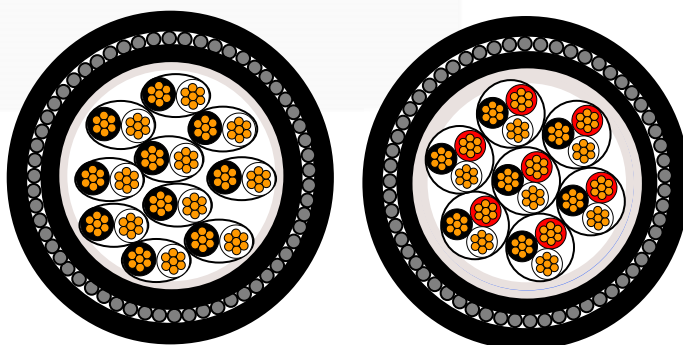
<b>CONDUCTOR</b>	Stranded, circular copper, per ASTM B3, 7 strands minimum; tinned, per ASTM B33
<b>INSULATION</b>	Crosslinked Polyethylene (XLPE) rated 90°C or Polyvinyl Chloride (PVC) rated 90°C.
<b>PAIRS/TRIADS</b>	Two or Three cores are twisted into Pairs/Triads, in suitable lay length.
<b>COLOR CODES</b>	-Pairs : Black/White with successive numbers on each core. -Triads: Black/White/Red with successive numbers on each core.
<b>ASSEMBLY</b>	The required number of pairs/triads are assembled with non-hygroscopic fillers (if required) and wrapped with a polyester binder tape.
<b>INNER JACKET</b>	Poly Vinyl Chloride Flame Retardant
<b>ARMOR</b>	Spirally applied soft Galvanized Round Steel Wires
<b>OUTER JACKET</b>	Poly Vinyl Chloride Flame Retardant Sunlight and Oil Resistant.

#### ELECTRICAL PROPERTIES

CONDUCTOR (DC) RESISTANCE @ 20°C(Ω/Km)			CONDUCTOR SIZE (AWG)			
	MATERIAL TYPE	UNIT	18	16	14	12
	PLAIN Cu	Ω/Km	≤21.80	≤13.70	≤8.620	5.41
	TINNED Cu	Ω/Km	≤22.70	≤14.30	≤8.96	5.61
<b>Insulation Resistance (min.)</b>		MΩ/Km	10	10	10	10
<b>Mutual Capacitance</b>	XLPE	nF/Km	150	150	150	150
	PVC	nF/Km	250	250	250	250
<b>Inductance to Resistance Ratio</b>	L/R	μH/Ω	25	40	60	100
<b>Voltage Test</b>	1.5 Kv AC (2 sec)					

#### PHYSICAL & ENVIRONMENTAL PROPERTIES

<b>Flame Retardant</b>	Flame Retardance Vertical Tray Test of UL
<b>Oil Resistance</b>	Passes Oil test of UL.
<b>Direct Burial</b>	Passes Crush test of UL.
<b>Sunlight Resistance</b>	Passes UL-1581 test (720 hours)
<b>Minimum Bending Radius</b>	10xCable Outside Diameter
<b>Temperature Range</b>	-30°C to 90°C



**ASH INSTRUMENTATION**  
**SINGLE / MULTI PAIR/TRIAD TCU/XLPE OR PVC UNSHIELDED ARMORED CABLE**  
UL 13 / UL 2250, PLTC / ITC, 90°C / 300V, Sunlight & oil Resistant, Flame Retardant

**DIMENSIONS AND WEIGHTS**

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/TRIAD	Dia. Of Armor Wire (mm)	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
I8FX-01P18AWG-WXXXX	<b>18(7X0.386)</b>	1P	0.90	1.02	12.00	215
I8FX-02P18AWG-WXXXX		2P	0.90	1.27	16.80	390
I8FX-04P18AWG-WXXXX		4P	0.90	1.27	18.50	495
I8FX-06P18AWG-WXXXX		6P	1.25	1.27	21.50	715
I8FX-08P18AWG-WXXXX		8P	1.60	1.27	24.70	1000
IFX-10P18AWG-WXXXX		10P	1.60	1.27	27.00	1145
I8FX-12P18AWG-WXXXX		12P	1.60	1.27	28.00	1220
I8FX-16P18AWG-WXXXX		16P	2.00	1.27	31.20	1665
I8FX-24P18AWG-WXXXX		24P	2.00	1.27	36.50	2140
I8FX-01T18AWG-WXXXX	<b>18(7X0.386)</b>	1T	0.90	1.02	13.00	235
I8FX-02T18AWG-WXXXX		2T	0.90	1.27	18.00	450
I8FX-04T18AWG-WXXXX		4T	1.25	1.27	20.70	680
I8FX-06T18AWG-WXXXX		6T	1.60	1.27	24.70	1020
I8FX-08T18AWG-WXXXX		8T	1.60	1.27	26.80	1190
I8FX-10T18AWG-WXXXX		10T	1.60	1.27	29.40	1380
I8FX-12T18AWG-WXXXX		12T	2.00	1.27	31.50	1715
I8FX-16T18AWG-WXXXX		16T	2.00	1.27	34.00	2000
I8FX-24T18AWG-WXXXX		24T	2.50	1.27	41.50	3000
I8FX-01P16AWG-WXXXX	<b>16 (7X0.488)</b>	1P	0.90	1.02	13.10	235
I8FX-02P16AWG-WXXXX		2P	0.90	1.27	17.70	445
I8FX-04P16AWG-WXXXX		4P	1.25	1.27	20.50	665
I8FX-06P16AWG-WXXXX		6P	1.25	1.27	23.60	870
I8FX-08P16AWG-WXXXX		8P	1.60	1.27	26.50	1150
I8FX-10P16AWG-WXXXX		10P	1.60	1.27	29.00	1360
I8FX-12P16AWG-WXXXX		12P	2.00	1.27	31.00	1450
I8FX-16P16AWG-WXXXX		16P	2.00	1.27	33.50	1940
I8FX-24P16AWG-WXXXX		24P	2.50	1.52	40.50	2550
I8FX-01T16AWG-WXXXX	<b>16 (7X0.488)</b>	1T	0.90	1.02	13.70	280
I8FX-02T16AWG-WXXXX		2T	1.25	1.27	19.90	610
I8FX-04T16AWG-WXXXX		4T	1.25	1.27	22.50	840
I8FX-06T16AWG-WXXXX		6T	1.60	1.27	26.40	1190
I8FX-08T16AWG-WXXXX		8T	1.60	1.27	28.50	1410
I8FX-10T16AWG-WXXXX		10T	2.00	1.27	33.00	1890
I8FX-12T16AWG-WXXXX		12T	2.00	1.27	34.00	2040
I8FX-16T16AWG-WXXXX		16T	2.00	1.27	36.70	2410
I8FX-24T16AWG-WXXXX		24T	2.50	1.52	45.50	3340

Dimensions and Weights are subject for manufacturing Tolerance.

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**DIMENSIONS AND WEIGHTS**

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/ TRIAD	Dia. Of Armor Wire (mm)	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
I8FX-01P14AWG-WXXXX	<b>14(7X0.615)</b>	1P	0.90	1.02	14.00	295
I8FX-02P14AWG-WXXXX		2P	1.25	1.27	19.70	610
I8FX-04P14AWG-WXXXX		4P	1.25	1.27	22.0	780
I8FX-06P14AWG-WXXXX		6P	1.60	1.27	26.20	1180
I8FX-08P14AWG-WXXXX		8P	1.60	1.27	28.50	1380
I8FX-10P14AWG-WXXXX		10P	2.00	1.27	32.80	1850
I8FX-12P14AWG-WXXXX		12P	2.00	1.27	33.60	2020
I8FX-16P14AWG-WXXXX		16P	2.00	1.27	36.40	2370
I8FX-24P14AWG-WXXXX		24P	2.50	1.52	45.20	3450
I8FX-01T14AWG-WXXXX	<b>14(7X0.615)</b>	1T	0.90	1.02	15.00	350
I8FX-02T14AWG-WXXXX		2T	1.25	1.27	21.30	710
I8FX-04T14AWG-WXXXX		4T	1.60	1.27	25.00	1115
I8FX-06T14AWG-WXXXX		6T	1.60	1.27	28.50	1450
I8FX-08T14AWG-WXXXX		8T	2.00	1.27	32.50	1975
I8FX-10T14AWG-WXXXX		10T	2.00	1.27	35.70	2300
I8FX-12T14AWG-WXXXX		12T	2.00	1.27	36.80	2450
I8FX-16T14AWG-WXXXX		16T	2.50	1.27	41.50	3050
I8FX-24T14AWG-WXXXX		24T	2.50	1.52	49.50	4150
I8FX-01P12AWG-WXXXX	<b>12 (7X0.775)</b>	1P	0.90	1.27	15.40	360
I8FX-02P12AWG-WXXXX		2P	1.25	1.27	21.30	710
I8FX-04P12AWG-WXXXX		4P	1.60	1.27	25.00	1110
I8FX-06P12AWG-WXXXX		6P	1.60	1.27	28.50	1425
I8FX-08P12AWG-WXXXX		8P	2.00	1.27	32.60	1950
I8FX-10P12AWG-WXXXX		10P	2.00	1.27	35.90	2275
I8FX-12P12AWG-WXXXX		12P	2.00	1.27	36.70	2490
I8FX-16P12AWG-WXXXX		16P	2.50	1.27	41.60	300
I8FX-24P12AWG-WXXXX		24P	2.50	1.52	50.00	4150
I8FX-01T12AWG-WXXXX	<b>12 (7X0.775)</b>	1T	0.90	1.27	16.50	445
I8FX-02T12AWG-WXXXX		2T	1.25	1.27	23.60	890
I8FX-04T12AWG-WXXXX		4T	1.60	1.27	27.20	1360
I8FX-06T12AWG-WXXXX		6T	2.00	1.27	32.50	2025
I8FX-08T12AWG-WXXXX		8T	2.00	1.27	35.60	2425
I8FX-10T12AWG-WXXXX		10T	2.50	1.27	40.20	2850
I8FX-12T12AWG-WXXXX		12T	2.50	1.27	42.00	3220
I8FX-16T12AWG-WXXXX		16T	2.50	1.52	46.20	3950
I8FX-24T12AWG-WXXXX		24T	2.50	1.52	55.50	5440

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