

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)
- Foundation fieldbus application.

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.
FF-844 TYPE A, H1	FF-844 H1 Cable Test Specification
IEC 61158-2 Section 12.8.2	Industrial communication networks - Fieldbus specifications

CONSTRUCTION DETAILS

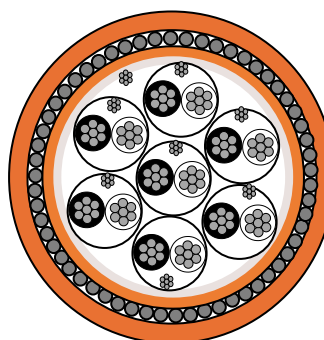
CONDUCTOR	Stranded, circular copper, per ASTM B3, 7 strands minimum: tinned, per ASTM B33
INSULATION	Thermoset crosslinked Polyethylene (XLPE) rated 90°C
COLOR CODES	-Pairs : Black/White with successive numbers on each core.
PAIRS	Two cores are twisted into Pairs, in nominal lay length of 50 to 60 mm.
INDIVIDUAL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
ASSEMBLY	The required number of pairs/triads are assembled with non-hygroscopic fillers (if required) and wrapped with a polyester binder tape
OVERALL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
INNER JACKET	Poly Vinyl Chloride Flame Retardant
ARMOR	Spirally applied soft Galvanized Round Steel Wires
OUTER JACKET	Poly Vinyl Chloride Flame Retardant Sunlight and Oil Resistant, Orange color

ELECTRICAL PROPERTIES

	UNIT	CONDUCTOR SIZE (AWG)
CONDUCTOR (DC) RESISTANCE @ 20°C(Ω/Km)	Ω/Km	≤18
Drain Wire DC resistance	Ω/Km	≤51
Mutual Capacitance (conductor to Conductor) @ 1 KHz	nF/Km	≤78
Capacitance Unbalance to Shield (1Khz)	nF/Km	4
Inductance to Resistance Ratio	μH/Ω	25
Attenuation at 1.25 fr (39Khz)	dB/Km	≤3.0
Characteristic Impedance (Zo)@ fr (31.25 KHz)	Ω	100±20
Propagation delay change 0.25 fr to 1.25 fr	μs/Km	1.7

PHYSICAL & ENVIRONMENTAL PROPERTIES

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



DIMENSIONS AND WEIGHTS

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/TRIA D	Dia. Of Armor Wire (mm)	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
IFFX-01P18AWG-WOR6D	18(7X0.386)	1P	0.90	1.05	12.00	260
IFFX-02P18AWG-WOR6D		2P	0.90	1.27	16.50	460
IFFX-03P18AWG-WOR6D		3P	0.90	1.27	17.50	515
IFFX-04P18AWG-WOR6D		4P	1.25	1.27	19.10	685
IFFX-05P18AWG-WOR6D		5P	1.25	1.27	20.20	760
IFFX-06P18AWG-WOR6D		6P	1.25	1.27	22.30	875
IFFX-07P18AWG-WOR6D		7P	1.25	1.27	22.40	910
IFFX-08P18AWG-WOR6D		8P	1.60	1.27	24.70	1150
IFFX-09P18AWG-WOR6D		9P	1.60	1.27	26.50	1255
IFFX-10P18AWG-WOR6D		10P	1.60	1.27	27.50	1335
IFFX-12P18AWG-WOR6D		12P	1.60	1.27	28.20	1425
IFFX-14P18AWG-WOR6D		14P	2.00	1.27	30.50	1770
IFFX-16P18AWG-WOR6D		16P	2.00	1.27	31.80	1905
IFFX-20P18AWG-WOR6D		20P	2.50	1.27	34.70	2200
IFFX-24P18AWG-WOR6D		24P	2.50	1.27	38.00	2480

Dimensions and Weights are subject for manufacturing Tolerance.