

SI No.		1 Pair X 1.5mm <sup>2</sup> Signal Cable	2 Pair X 1.5mm <sup>2</sup> Multicore Signal Cable	12 Pair X 0.5mm <sup>2</sup> Multicore Signal Cable	1 Pair X 1.5mm <sup>2</sup> T/C Extn. Cable/ Comp. Cable	6 Pair X 0.5mm <sup>2</sup> T/C Extn. Cable/ Comp. Cable	12 Pair X 0.5mm <sup>2</sup> T/C Extn. Cable/ Comp. Cable	1 Triad X 1.5mm <sup>2</sup> RTD Signal Cable	6 Triad X 0.5mm <sup>2</sup> RTD Signal Cable	3 Core X 1.5mm <sup>2</sup> Power Cable
		(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Armoured & Screened)	(Unscreened Armoured )
1.	General Application Std.									
	BS5308(Part-2)									
	IS-8130 / 84	Yes	Yes	Yes	Yes and	Yes and	Yes and	IS-8130/84	IS-8130/84	IS-8130/84
	IS-5831 / 84				ANSI-MC 96.1	ANSI-MC 96.1	ANSI-MC 96.1			
	IS-3975 / 88									
2.	Voltage Grade (RMS) Volts	660 / 1100 V	660 / 1100 V	660 / 1100 V	660 V	660 V	660 V	660 / 1100V	660 / 1100V	1100 V
3.	Operating Temp. in Deg. C	90	90	90	90	90	90	90	90	90
	Numbers of Cores/Pairs / Triad	1 Pair	2 Pair	12 Pair	1 Pair	6 Pair	12 Pair	1 - Triad	6 - Triad	3 core
<b>(A) CONDUCTOR</b>										
	Material & Standard	Annealed Copper	Annealed Copper	Annealed Copper	+VE Chromel/ Copper/ -VE Alumel/ Cu-Ni Alloy	+VE Chromel/ Copper/ -VE Alumel/ Cu-Ni Alloy	+VE Chromel/ Copper/ -VE Alumel/ Cu-Ni Alloy	Annealed Copper	Annealed Copper	Annealed Copper
	Conforming To	IS - 8130/84	IS - 8130/84	IS - 8130/84	ANSI MC. 96.1/ IS : 8784-1987	ANSI MC. 96.1/ IS : 8784-1987	ANSI MC. 96.1/ IS : 8784-1987	IS - 8130/84	IS - 8130/84	IS - 8130/84

Grade	Electrolytic	Electrolytic	Electrolytic	KX / KX(A)	KX / KX(A)	KX / KX(A)	Electrolytic	Electrolytic	Electrolytic					
No. of Strand/Dia of each Strand (mm)	48/0.2 OR 7/0.53	48/0.2 OR 7/0.53	16/0.2 OR 7/0.3	1/16 AWG 1/20 AWG 3x22 SWG	1/16 AWG 1/20 AWG 3x22 SWG	1/16 AWG 1/20 AWG 3x22 SWG	48/0.2 OR 7/0.53	16/0.2 OR 7/0.3	48/0.2 OR 7/0.53					
Pair Identification (by Number markings on Cores at an interval of 250 mm or by number tape on each Core)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Form of Conductor	Round	Round	Round	Round	Round	Round	Round	Round	Round					
Area of Cross Section (sq. mm)	1.5	1.5	0.5	1.5	0.8 OR 1.5	0.8 OR 1.5	1.5	0.5	1.5					
					Insulation Resitance at 20°C Meg. Ohms/Km (min.)	100	100	100	100	100	100	100	100	100
					Inductance (Max) MillInry/Km	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	N.A.
					L/R Ratio (Max) Microhenry/Km	40	40	25	40	25	25	40	25	N.A.
					Communication Pair	NO	NO	YES	NO	YES	YES	NO	YES	NO
<b>(B) INSULATION</b>														





Type & Standard to which it conforms IS-5831/84, ASTM, IEEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Thickness min/nominal (mm)	1.4	1.4	1.8	1.4	1.8	1.8	1.4	1.6	1.4
Colour Electrical characteristics (Reqd. for intrinsic safety)	L. Blue	L. Blue	L. Blue	Brown	Brown	Brown	L. Blue	L. Blue	Black
<b>(G) ELECTRICAL PARAMETER</b>									
Conductor Resistance (DC) max. at 20 Deg. C Ohm/Km for each Core	12.2	12.2	36.6	Loop 0.4 / mtr 0.6 / mtr	Loop 0.4 / mtr 0.6 / mtr	Loop 0.4 / mtr 0.6 / mtr	12.2	36.6	12.2
Mutual Capacitance (Max) p F/Km Between Cores	250	250	75	250	75	75	250	75	N.A.
Between Core to Screen	400	400	120	400	120	120	400	120	N.A.

**(H) CHARACTERISTICS OF FRLS SHEATH :**

- (A) Oxygen Index : Minimum 29% at Room Temperature when tested as per ASTM-D-2863
- (B) Temperature Index : Minimum 250 Deg. C at Oxygen Index when tested as per ASTM-D-2863
- (C) Acid Gas Generation : Minimum 20% by weight when tested as per IEC-754

Part-1

(D) Smoke Density Rating : Minimum 60% when tested as per ASTM-D-2843

(E) Flammability Test As per IEC 332 Part 1 & 2 / 1979