

- Thermocouple Extension, Compensating cables
- Signal cables
- Control cables
- Instrumentation Power cables



Specifications

S. No.	Part	Type	Range
1.	Conductor	Solid Conductor Stranded Conductor	Standard sizes : 0.81mm dia (0.5mm ²), 20 AWG 1.13mm dia (1.0mm ²) 1.29mm dia (1.31 mm ²), 16AWG 1.38mm dia. (1.5mm ²) 1.79mm dia (2.0mm ²) Standard sizes : 7 x 0.31mm dia. (0.5mm ²), 20 AWG 7 x 0.43mm dia. (1.0mm ²) 7 x 0.49mm dia (1.3mm ²) 7 x 0.53mm dia (1.5mm ²) 7 x 0.67mm dia. (2.5mm ²)
2.	Core Insulation	PVC 70°C PVC 85°C PVC 105°C LDPE	Standard thickness : 0.6mm
3.	Units	Core Pair Triad Quad	Length of Twist ; 0.5mm ² conductor 55 mm/18 twists per meter 0.1mm ² conductor 60 mm/17 twists per meter 16AWG conductor 60 mm/17 twists per meter 1.5mm ² conductor 70 mm/14 twists per meter 2.5mm ² conductor 80 mm/12 twists per meter
4.	Unit screen	1 layer of polyester tape. 1 tinned copper drain wire. 1 layer of aluminium mylar tape with 25% overlap For 100% coverage. 1 layer of Polyester tape.	Polyester tape 25 micron thick 7 x 0.31mm dia. (0.5mm ²) Aluminium - mylar Tape 65 micron thick. Polyester tape 25 micron thick.
5.	Number of units	Single unit Multi unit	

Specifications

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6.	Communication pair	7 x 0.31 mm dai. (0.5 mm ²) insulated, twisted pair	Provided for cables with 6 pairs, 6 traid, 6 quads and above.
7.	Overall Screen	Same as for Unit Screen (4.)	
8.	Inner Sheath	PVC 70°C PVC 85°C PVC 105°C FRLS Grade PVC	Standard thickness : 1.0 mm min.
9.	Armour	Galvanised round steel wires Galvanised flat Steel wires	Standard size 1.0 mm dia. for cable OD up to 1.3 mm and 1.4 mm dia. above 13 mm 4 x 0.81 mm (Optional)
10.	Outer Sheath	PVC 70°C PVC 85°C PVC 105°C FRLS Grade PVC	Standard thickness : 1.2 mm for Cable OD up to 13 mm and 1.50 mm above 13 mm

Testing

STANDARD	TESTS
IS :8130	: Annealing test for conductors, Wrapping test for conductors Persulphate test for tinned copper conductors, Conductor resistance test for copper conductors
ANSI MC 96.1	: Thermo-emf performance test for thermocouple cables, Loop resistance test for thermocouple cables
IS : 5831	: Insulation and sheath thickness test, Tensile strength of insulation and sheath, Elongation test for insulation and sheath, Shrinkage test for insulation and sheath, Loss of mass test for insulation and sheath, loss of mass test for insulation and sheath, Ageing test for insulation and sheath, heat shock test for insulation and sheath Bleaching and blooming test for insulation and sheath, Insulation resistance test for insulation and sheath, flammability test for cable
IS : 3975	: Tensile strength of armour material, Elongation test for armour material, Zinc coating test on GI armour wire
IS :1554	: Tensile strength for insulation and sheath, Elongation strength for insulation and sheath, High voltage test for insulation and sheath
IS :694	: Spark test for insulation and sheath, HV test for insulation and sheath IEEE :383 Flame resistance test
ASTM-D-2863	: Limiting Oxygen Index test, Temperature Index Test ASTM -D -2843 Smoke density test.
IEC -332- 1 and 3	: Flammability test
IEC -754-1	: HCl gas emission test
SS-424-14-75 (F-3)	: Flame retardancy test (Swedish chimney test) Noise rejection ratio test Rodent & termite resistance chemical test