



INSTRUMENTATION CABLE

TDS Doc.No:PIL/TE/250425/003737

DESIGN CODE : ICIS04TYSWYL002P1.5SA004S

Particulars	2P X 1.5 Sqmm
Name of Manufacturer	Polycab India Ltd
Type of Cable	Overall Screened
No of Elements X Size in mm ²	2P X 1.5
Voltage Grade (V)	500
Conductor	
a) Material	Annealed Tinned Copper as per Class 2 of IS:8130/2013
b) Maximum d.c. resistance of conductor at 20° C (Ω/km)	12.4
c) Shape of conductor	Stranded Circular
Insulation	
a) Material	PVC Type A as per IS:5831
b) Minimum Thickness mm	0.44
c) Pair identification	White & Blue with number printing on any one core of pair
Collective Screen	
a) Material	Aluminium mylar tape
b) Nominal Thickness mm	0.018
c) Material of Drain Wire	Flexible ATC
d) Size of Drain Wire (Approx.)	0.5 mm ² (16/0.2 mm)
Inner sheath	
a) Material	Extruded PVC Type ST1 to IS: 5831, Latest
b) Minimum Thickness mm	0.30
Armouring	
a) Material	Galvanised Steel
b) Type of armouring	Round Wire
c) Nominal size of armour (mm)	0.90
d) Tolerance on armour dimensions	± 0.030 mm

Outer sheath	
a) Material	Extruded FR-LSH PVC Type ST1 to IS: 5831, Latest
b) Thickness mm	1.24 (Min.)
c) colour of sheath	Blue
Maximum conductor temperature under normal operating conditions °C	70
Minimum bending radius	12 times Overall diameter
Electrical Parameters	
a) Mutual capacitance nf/km	<250
b) Insulation resistance MΩ/km	10
c) Inductance to resistance ratio (L/R) μH/Ω	<40
d) Dielectric strength for 1 minute (H.V Test) kV	2
Max. tensile strength for Cables pulled with stocking (Newtons)	9 x D ² , D is the cable OD in mm
Approximate Overall diameter of cable mm	14.5 ± 2.0
Applicable Standard	Generally as per IS 1554 Part I/88 & BS EN 50288-7
Standard Drum Length (Mtr.)	1000 ± 5%
Non-Standard Drum Length (Mtr.)	Maximum 5% of order quantity and Min Individual Non-Standard Drum 200 meters
Embossing	POLYCAB 500 VOLTS GRADE FR-LSH
Printing	YEAR POLYCAB 500 VOLTS GRADE FR-LSH CABLE SIZE SCREENED with SEQUENTIAL LENGTH MARKING at EVERY ONE METER INTERVAL
FR-LSH PROPERTIES	
a) Oxygen Index	Min. 29% as per ASTM D- 2863
b) Temperature Index	Min. 250 Deg.C as per ASTM D- 2863
c) Smoke Density Rating	Max. 60% as per ASTM D- 2843
d) Acid Gas Generation	Max. 20% as per IEC- 754- 1
e) Flammability Test	As per IEC:332-I