



INSTRUMENTATION CABLE

Document ID: TE/QMS/F/02

CABLE CODE: ICIS04CYSWYL002C001SA003S

Particulars	2 Core X 1 sqmm
Name of Manufacturer	POLYCAB INDIA LTD
Type of Cable	Overall Screened
No of Elements X Size in mm ²	2C X 1
Voltage Grade (V)	300/500
Conductor	
a) Material	Plain Stranded Copper (Class-2) as per IS: 8130/2013
b) Maximum D.C. resistance of conductor at 20° C (Ω/km)	18.1
c) Shape of conductor	Stranded Circular
Insulation	
a) Material	PVC Type A as per IS:5831
b) Minimum Thickness mm	0.44
c) Pair/Triad identification	Red & Black
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
b) Minimum Thickness mm	0.3
Armouring	
a) Material	Galvanised Steel
b) Type of armouring	Round Wire
c) Nominal size of armour (mm)	0.9
d) Tolerance on armour dimensions	± 0.030 mm
Outer sheath	
a) Material	Extruded FR-LSH PVC Type ST1 to IS: 5831

b) Thickness mm	1.24 (Min.)
c) colour of sheath	Blue

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
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	<25
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	10.5± 2.0
Applicable Standard	Generally, as per IS 1554 Part I/88 & BSEN 50288-7
Standard Drum Length (Mtr.)	1000 ± 5%
Non-Standard Drum Length (Mtr.)	Maximum 5% of order quantity
Embossing	POLYCAB 300/500 VOLTS GRADE FR-LSH
Printing	YEAR POLYCAB 300/500 VOLTS GRADE FR-LSH CABLE SIZE SCREENED with SEQUENTIAL LENGTH MARKING at EVERY ONE METER INTERVAL