



INSTRUMENTATION CABLE

TDS Doc.No:PIL/TE/250425/004146

CABLE CODE: ICIS04CYSWYL001T001SA004S

Particulars	1 Triad X 1 sqmm
Name of Manufacturer	POLYCAB INDIA LTD
Type of Cable	Overall Screened
No of Elements X Size in mm ²	1T 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	White, Blue & Brown
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

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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) $9 \times D^2$, D is the cable OD in mm

Approximate Overall diameter of cable mm 11 ± 2.0

Applicable Standard Generally, as per IS 1554 Part I/88 & BSEN 50288-7

Standard Drum Length (Mtr.) $1000 \pm 5\%$

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