



INSTRUMENTATION CABLE

TDS Doc.No:PIL/TE/250425/002885

CABLE CODE: ICIS04CYSWYL012P0.5SA001S

Particulars	12 Pair X 0.5 sqmm
Name of Manufacturer	POLYCAB INDIA LTD
Type of Cable	Overall Screened
No of Elements X Size in mm ²	12P X 0.5
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)	36.7
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 with numbered Polyester tape (OR) White & Blue with number printing on core
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) $9 \times D^2$, D is the cable OD in mm

Approximate Overall diameter of cable mm 19 ± 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