



## INSTRUMENTATION CABLE

TDS Doc.No:PIL/TE/250425/003734

CABLE CODE: ICIS04CYSWYL002P1.5SA003S

Particulars	2 Pair X 1.5 sqmm
Name of Manufacturer	POLYCAB INDIA LTD
Type of Cable	Individual & Overall Screened
No of Elements X Size in mm <sup>2</sup>	2P X 1.5
Voltage Grade (V)	300/500
<b>Conductor</b>	
a) Material	Plain Stranded Copper (Class-2) as per IS: 8130/2013
b) Maximum D.C. resistance of conductor at 20° C (Ω/km)	12.3
c) Shape of conductor	Stranded Circular
<b>Insulation</b>	
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
<b>Individual Screen</b>	
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 <sup>2</sup> (16/0.2 mm)
<b>Collective Screen</b>	
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 <sup>2</sup> (16/0.2 mm)
<b>Inner sheath</b>	
a) Material	Extruded PVC Type ST1 to IS: 5831
b) Minimum Thickness mm	0.3
<b>Armouring</b>	
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

## CABLES

### 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	<40
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  $15.5 \pm 2.0$

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  
EVERYONE METER INTERVAL