



## INSTRUMENTATION CABLE

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**CABLE CODE: ICIS04CYSWYL002C1.5SA004S**

| Particulars   | 2 Core X 1.5 sq mm                                   |
|---|--|
| Name of Manufacturer                                    | POLYCAB INDIA LTD                                    |
| Type of Cable   | Overall Screened                                     |
| No of Elements X Size in mm <sup>2</sup>                | 2C 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) | 12.1   |
| 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                            | Red & Black  |
| <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   |
| <b>Outer sheath</b>                                     |  |
| a) Material   | Extruded FR-LSH PVC Type ST1 to IS: 5831             |
| b) Thickness mm   | 1.24 (Min.)  |
| c) colour of sheath                                     | Blue   |
| <b>FR-LSH PROPERTIES</b>                                |  |
| 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 x D <sup>2</sup> , D is the cable OD in mm   |
| Approximate Overall diameter of cable mm                        | 11.5 ± 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<br>SCREENED with SEQUENTIAL LENGTH MARKING at EVERY<br>ONE METER INTERVAL |