



INSTRUMENTATION CABLE

DESIGN CODE : ICIS04TYSWYL002C0.5SA002S

TDS Doc.No:PIL/TE/250425/002893

| Particulars | 2 Core X 0.5 Sqmm |
|---|---|
| Name of Manufacturer | POLYCAB INDIA LTD. |
| Type of Cable | Overall Screened |
| No of Elements X Size in mm ² | 2C X 0.5 |
| Voltage Grade (V) | 500 |
| Conductor | |
| a) Material | Annealed Tinned Copper as per Class 2 of 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) Core 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, Latest |
| 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, Latest |
| b) Thickness mm | 1.24 (Min.) |
| c) colour of sheath | Blue |
| 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 | 2.0 |
| 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 | 9.5 ± 2.0 |
| Applicable Standard | Generally as per IS 1554 Part I/88 & BS EN 50288-7 |
| Standard Drum Length (Mtr.) | 1000 ± 5% |
| Non-Standard Drum Length (Mtr.) | Maximum 5% of order quantity and Min Individual Non-Standard Drum 200 meters |
| Embossing | NA |
| Printing | YEAR POLYCAB 500 VOLTS GRADE FR-LSH CABLE SIZE SCREENED with SEQUENTIAL LENGTH MARKING at every one meter interval. |
| 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 |