

TECHNICAL SPECIFICATION FOR ENGINEERING PLASTIC  
METER BOX

**1. Scope**

This specification covers manufacture, testing at works and supply of Three Phase LT Meter Boxes made of insulating material intended to contain meters to be installed on wall or similar flat surface structure.

**2. Applicable Standard**

The Meter Boxes shall comply with IS : 5133 (Part-II)

**3. Service Conditions**

Equipment to be supplied against this specification shall be suitable for satisfactory continuous operation under the following tropical conditions.

|   |           |
|---|-----------|
| Maximum Ambient Temperature (Degree C)  | 60        |
| Maximum temperature in shade (Degree C)   | 45        |
| Minimum Temperature of Air in Shade (Degree C)  | 0° C      |
| Relative Humidity (Percent )  | 10 to 100 |
| Maximum annual rain fall (mm)   | 1450      |
| Maximum Wind pressure (Kg/Sq. M. )  | 150       |
| Maximum altitude above mean sea level (Metre)   | 1000      |
| Isoceranic level (days per year)  | 50        |
| Seismic level (Horizontal Acceleration)<br>Moderately hot and humid tropical climate<br>conducive to rust and fungus growth | 0.3 g     |

**4.0 Material and Construction**

4.1 The Meter box shall be made of **Injection Moulded reinforced Fire Retardant Polypropylene/ Polycarbonate**, with wall thickness as specified by GTP capable of withstanding temperatures up to 125 °C (As per Ball pressure tests clause 9.14.2 IS – 8828/96).

4.2 (i) The over all dimensions (in mm) of the box shall ensure following inner air gap.

Both left ,right and top hinge side ..... 15mm.

Meter body top surface ..... 15mm

Meter body bottom (wire entry) .....100 mm.

( All above above clearance are minimum dimension ).

(ii) The thickness of the Box & window shall be 2.5 mm  $\pm$  0.15 mm.

(iii) The box shall have ample space to fit GSM / CDMA MODEM and their accessories including antenna etc.

- 4.3 The Cover of meter box is made of polycarbonate transparent. The meter shall have suitable cable terminated on top cover with D-Port . The other end of cable shall be suitable to be connected with wired port of meter.
- 4.4 Meter box shall have 2 Nos. of Knock out type holes of diameter at the bottom for entry of service connection wires fixed with one glands .
- 4.5 For Meter reading , Push button is provided .
- 4.6 The box cover shall be fixed on two hinges. A total no of 2 hinges in one meter box.
- 4.7 For holding and locking the cover, U-shaped latches with one hole for riveting on the base and the other for sealing the meter box shall be provided. This clamp will also hold the cover with base. The total number of Clamps for each box will be 2 Nos.
- 4.8 Meter base supports shall be raised by about 10 mm in the box for easy of wiring.
- 4.9 Soft rubber gasket for protection on all around cover will be provided.
- 4.10 The box will be provided with 4 fixing holes of 8mm dia , In addition sealing holes of 3 to 3.5 mm dia will be provided in U clamps.
- 4.11 The box should have earthing provision.
- 4.12 Box with CRCA frame for box and meter mounting will be preferred.