

# Global technology for local needs

## OIL LEVEL INDICATOR

MODEL: SO-100-ST-R3

#### 1.0 APPLICATION:

This indicator is suitable for oil filled distribution transformers & oil filled tanks.

#### 2.0 SCOPE:

Indicator continuously reads level inside the conservator and operates a microswitch when oil level drops near Min. level mark.

### 3.0 CONSTRUCTION & WORKING:

The indicator has aluminium casted body with built in flange for mounting. To avoid leakage of oil and to avoid entry of contaminated air into tank, a pair of permanent magnets is used separated by a metallic wall (See Schematic). A float is used as sensor & is connected to driving magnet immersed in oil. The driven magnet is positioned outside in body which carries a pointer and a cam. The pointer is set to read the oil level and the cam is set to operate the switch near Min. level. Switch resets automatically when level of oil is brought to normal. Contacts of switch are brought outside in terminal box with threaded hole for fixing cable gland. The body of indicator with dial and switch is sealed to avoid entry of moist air. Hence switch is not accessible for resetting or servicing. The length of Float - Arm can be adjusted by Allen Screw (Item 3, Fig.3).

### 4.0 SPECIFICATIONS:

### Liquid in tank:

Compatible with Transformer or any other oil.

## **Specifications:**

Temperature : -30° to +100° C of Oil
Pressure : 0 to 1 kg/Cm²
Environment : Indoor or outdoor.

Ingress Protection : IP-67 Corrosion Resistance : C4-M

### Mounting:

To mount the indicator, buyer is required to provide a pad as per Fig.4. The position can be selected on vertical wall of conservator / tank depending on importance of oil level readings and switching near Min. level.

#### Calibration:

Dial Size : 100 mm round (nominal)

Unit : Any calibration as per Customer's requirement

is possible.

Colour : Black marking on white background or any

other combination as required.

### Float (sensor) and arm:

Material: Float-synthetic, Arm - S.S.

Travel : Max 70 degrees below & above center.

Distance : Max 185 mm below and above center.

Length : Adjustable Float arm length, Max 200mm

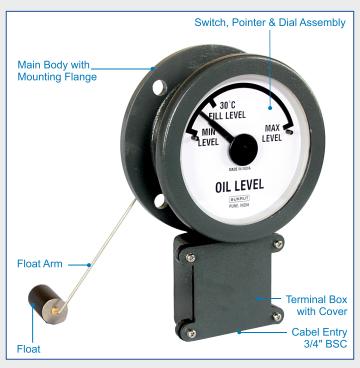
Margin:

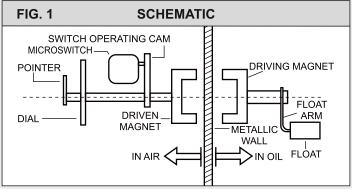
Leave Min. 40 mm beyond lower & higher limit markings to avoid striking of float to bottom & top of conservator.

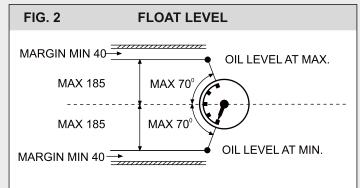
(See Fig.2) Switch:

Type : Microswitch

Contact Rating : See wiring diagram (Fig. 5)
Operation : See wiring diagram (Fig. 5)







#### **5.0 ROUTINE TESTS**

Each indicator is tested for

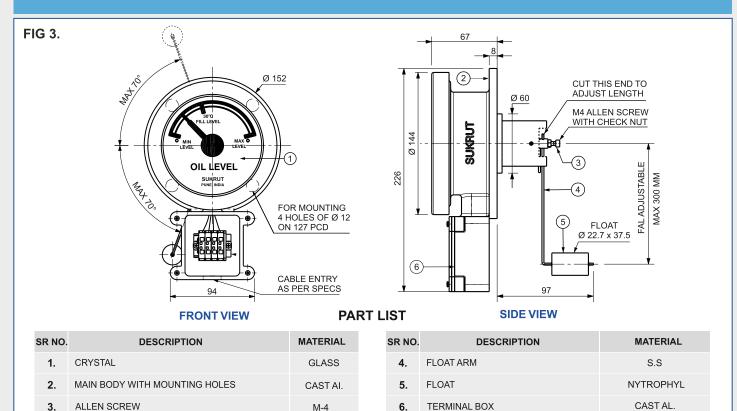
- 1. Specified levels.
- 2. Switch operation.
- 3. High Voltage Test.
- 4. Leakage Test.

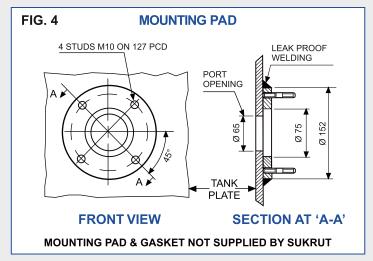
A combined test certificate is issued for each batch.

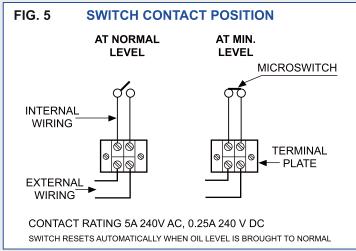
## 6.0 HOW TO ORDER:

We provide a Questionnaire for specifying your requirements. However, a drawing is acceptable giving all specifications.

# **OIL LEVEL INDICATOR MODEL: SO-100-ST-R3**







### **GENERAL NOTES:**

- 1. Indicators of different specifications are not interchangeable. Hence care should be taken while storing Indicators and their Float with Arms. This indicator can be used for vertical or inclined mounting as per order.
- 2. Float & Indicator, loose or assembled, should be handled carefully as they cannot be repaired if damaged.
- 3. The complaint of damage or demand for spares should be very specific with respect to Sr. No. of indicator. Lot of correspondence and time can be saved just by informing Sr. No. of concerned Indicator.



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