

## OIL TAN DELTA TESTER / TEST SYSTEM

System Consist Of Following Instruments :

### OIL DISSIPATION FACTOR METER (MODEL-ODF)

This instrument measures dissipation factor (Tan-Delta) of the insulating liquids (oil) with the help of IR Tester and three terminal oil cell with heating chamber.

#### Features

- Direct digital reading of dissipation factor (Tan-Delta).
- Power supply sufficient to create required stress voltage.
- High testing speed as measurements are carried out under actual working conditions and no turning is necessary prior to every single reading.



#### TECHNICAL SPECIFICATION

|                              |                                       |
|------------------------------|---------------------------------------|
| Dissipation Range            | : 19.99% FSD with resolution of 0.01% |
|                              | 199.9% FSD with resolution of 0.1%    |
| Dielectric constant range    | : 0.2 to 10                           |
| Test voltage                 | : 0 to 300/600 VAC continuously.      |
| Indication of Null           | : 3 ½ Digit DPM.                      |
| Indication of Tan-Delta      | : 3 ½ Digit DPM.                      |
| Indication of Stress Voltage | : 3 ½ Digit DPM                       |
| Accuracy                     | : ± 1% of reading ± 0.0001 Tan-delta. |
| Power Supply                 | : 230 VAC ± 10% / 50 Hz.              |
| Warm up time                 | : 5 minutes.                          |

### I. R. TESTER (MODEL IR-1)

The instrument is designed to test the insulation resistance of electronic and electrical components in the range of 1 Meg ohm to 10 Million Meg ohm.

#### Features

- Push button controls for rapid testing.
- Fully protected against all overload and short-circuits.
- Drift free operation.
- Guard terminal and built-in EARTH.
- Push button self indicating controls for charge, measure & discharge operations.
- Maximum output current is made limited to safe value to eliminate the risk of serious shocks.
- Suitable for testing resistivity of the insulating liquids when used with oil cell as per IS.



#### TECHNICAL SPECIFICATION

|                     |   |
|---------------------|---|
| D.C. Test Voltages  | : 100V, 250V, 500V, 1KV   |
| Resistance Range    | : 1 Meg ohm to 10 9 Meg ohm in 6 ranges.  |
| Indication          | : Taut band panel meter.  |
| Overload Protection | : Fully protected against wrong selection of ranges & breakdown of components under test. |
| Warm up time        | : One minute.   |
| Power Supply        | : 230 VAC / 50 Hz.  |
| Weigh               | : Less than 7 Kg.   |

**HEATING CHAMBER (OHC) WITH THREE TERMINAL OIL CELL**

Heating chamber is designed to heat the insulating liquid (oil) up to elevated temperature 0-150°C in short time of 15/20 minutes. A potentiometer is provided for setting of temperature at required level. Heating chamber with oil cell for easier testing at required temperature fitted with thermostat and protection device to prevent shock hazards. Three terminal oil cell is designed to test the dissipation factor (Tan-Delta) and resistivity of the insulation liquids.



**TECHNICAL SPECIFICATION**

|                     |                                    |
|---------------------|------------------------------------|
| Temperature range   | : 0 to 150°C                       |
|                     | 199.9% FSD with resolution of 0.1% |
| Indication          | : 3 ½ Digit DPM                    |
| Heating element     | : Heating coil                     |
| Power source        | : 230 VAC/50 Hz                    |
| Sensing probe       | : PT 100                           |
| Made up of          | : SS & Teflon spacers              |
| Cell Capacitance    | : 55 ± 1PF                         |
| Volume (Oil)        | : 50 ml.                           |
| Cell Constant       | : 620 Nominal                      |
| Electrodes Distance | 2 mm                               |

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