

Digital Insulation Tester

1. SPECIFICATIONS

1.1 General Specifications

Display: 3½ digit liquid crystal display (LCD) 20mm height with a maximum reading of 1999.

Over range Indication: (1) or (-1) is displayed at MSD

Low Battery: Displayed when the battery voltage drops is Low.

Safety standard: Meets the requirement of IEC 1010 for installation category II, 1000V phase to earth.

Measurement rate: 2.5 measurements per second.

Operating condition: 0°C to + 50°C, 0-75% RH

Storage conditions: -20°C to + 60°C, 0-80% RH with battery removed.

Accuracy: ± (3% rdg + 2dgt) Accuracy specifications at 23 ± 5°C, less than 75% RH.

Power Supply: 9 volts (6 x 1.5V) battery, Eveready type 1015 or equivalent. OR Power Adaptor 9V, 1.5 A

Dimensions: 139 x 99 x 54mm (approx)

Weight: 395gms including battery, Eveready type 1015 or equivalent.

Accessories: Test leads (pair) X 1, 1.5V battery (installed) X carrying case X 1.

Dielectric Strength: 3.5kV @ 50Hz for 1 min. between input terminals and case.

Insulation Resistance: More than 50MΩ at 500V between circuit and case.

1.2 Electrical Specifications

Accuracies are ±(% reading plus number of digits) at 23 ± 5°C, and humidity of less than 75% RH

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Model NO	DIT90A	DIT90B	DIT90C	DIT90D	DIT90E
Rated Voltage	1000V	1000V	500V	500V	
Range	2000MΩ	200MΩ	2000MΩ	200MΩ	
Resolution	1MΩ	0.1MΩ	1 MΩ	0.1 MΩ	
Max. No. load Voltage	±25% of rated voltage				
Short Circuit Current Accuracy	<2 mA ± (3%rdg + 2dgt)				

2. SAFETY INFORMATION

1. The circuit under test must be de energized and isolated before connections are made.
2. Circuit connections must not be touched during a test.
3. After insulation tests capacitive circuits must be allowed to be discharged.
4. Test leads must be in good order, clean and have no cracked or broken insulation.
5. Do not push the test button before all connections and preparations are done. The instrument must only be used by suitable trained and competent persons.

Warning and safety symbols **Δ Caution refer to this manual before using the meter. Δ Dangerous voltages. CE Comply with IEC1010 – 1.**

3. OPERATION

Before taking any measurements, ready the safety information section. Always examine the instrument for Range, contamination (excessive dirt, grease, etc.) and defects Examine the test leads for cracks or frayed insulation. If any abnormal conditions exist do not make measurements.

3.1 PRECAUTIONS

1. Disconnect all power from the circuit under test when making measurements. If any voltage is present in the test circuit an erroneous reading will result.
2. When the test switch is pressed a high voltage is generated between 'L' and 'E' terminals. Do not touch any live parts in the circuit during measurement.

3.2 INSULATION RESISTANCE MEASUREMENT

1. Connect red test lead to 'L' Terminal
2. Connect black test lead to 'E' Terminal
3. Short the red and black test lead and press the test switch, Zero MΩ should be indicated on the display.

4. Connect the test leads to circuit under test and press test switch.

5. Display indicates the reading in MΩ, if insulation resistance is higher than the instrument, '1' or '-1' is indicated.

4. MAINTENANCE

If there appears to be a malfunction during the operation of the meter. The following steps should be performed in order to isolate the cause of the problem.

1. Check the battery.

2. Review the operating instruments for possible mistakes in operating procedure.
3. Inspect and test the Test Probes for a broken or intermittent connection.

4.1 BATTERY REPLACEMENT

To prevent electrical shock hazard, disconnect the test leads before removing the battery cover.

Also ensure that the test switch is not pressed.

1. Remove the cover of battery case at the rear.
2. Remove the old batteries from the meter and replace with new batteries. Replace all the same time.

4.2 Power Adaptor

1. While Using Power Adaptor, Remove the battery for better Battery life.
2. Use Adaptor with 9V, 1.5 A Rating

CERTIFICATE OF CALIBRATION

We hereby certify that this product has been calibrated and found to be in accordance with the applicable SPECIFICATION. Accuracies of the standard equipment used in this calibration are traceable to the international standards.