



MICROPROCESSOR BASED H.V. DIGITAL INSULATION TESTER with P.I. & DAR Model : CIE -5000PI

APPLICATION

Type CIE-5000 PI is a universal, Multi-purpose instrument for checking insulation and conductance during simulated operating conditions in high tension electrical and electronic fields. It is ideally useful for the electrical maintenance of Rotating plant machinery, Distribution networks, Communication cable, Insulators and servicing of Control and switching equipments, transformers and industrial installations. Di-electric Absorption test requires the voltage to be applied for several minutes. Operating an instrument under motor power allows this to be done easily. The high sensitivity of the instrument enables sensible reading to be obtained from such polarization index tests. (Polarisation Index = Resistance after 10 min./Resistance after 1 min.)



It is a versatile mains operated insulation tester which is recommended for every electrical engineer. The CIE - 5000PI is a smart microprocessor based 5KV Insulation Tester and analyser besides the conventional measurement of Insulation resistance upto 100.0G Ohm. It's advance features allow one to automatically measure both the polarization Index and Dielectric absorption ratio, thus significantly simplifying the testing of transformers and motors. The Insulation Tester is a mains (230V AC , 50-60Hz) operated Insulation Tester and analyser. The test voltage may be chosen in between 1KV,2.5KV and 5KV. Due to its measurement principal (actual voltage and current readings) the accuracy of resistance measurement is not affected by any test voltage error. The built in chronometer automatically counts the elapsed time since the start of the measurement and shown over display by which user can easily understand the actual condition of the insulation testing (e.g. in DAR Mode or in PI mode or in IR mode)The measured values all are automatically hold over display until the instrument restart or off. The Test Voltage shown over-display at the time of measurement.

SALIENT FEATURES

- High Voltage Out Put Indicator
- 16X2 Jambo LCD Display.
- Start/Stop Button
- KV Selection Switch (1KV, 2.5KV, 5KV)
- Mode Selection Switch (IR, DAR, PI)
- Terminals (LINE, EARTH, GUARD)
- Power Switch (BACK PANEL)

SWITCH AND BUTTON ELUCIDATE

1. **POWER SWITCH**
The switch is used to "ON and OFF" the system
POWER ON MESSAGE: "DIT-5000 Pi"
NEXT MESSAGE: PLZ open leads K push mode switch
2. **MODE SWITCH**
The switch is used to automatically calibrate measuring range.

CALIBRATION MESSAGE:
INITIALISATION EXECUTING SUCCESSFUL

NEXT MESSAGE: After successful auto calibration the instruction will shown on display.
"The leads may be re- connected now"

3. **KV Selection:**

Push KV selection switch as desire the options are 1.00 KV/2.50KV/5.00KV.

At the time of measurement actual output voltage will shown on Display.

Now select the mode of operation as desired by user.

The option are as follow.

IR- Insulation Resistance Value for 30 sec. After 30 sec data will hold on display but the H.V. will automatically shut down

DAR- Di-electric Absorption Ratio

IR value of 60 sec will be shown

DAR Value=

- o IR OF 60 Sec. After 1 min test stop
- o IR Of 30 Sec. Automatically

4. **START/STOP SWITCH**

Stop/ Start button is used to start the test and as well as to stop it if necessary.

Start/ Stop button is used to reset the test condition after completion of a test.

SPECIFICATIONS

Accuracy is specified for a period of year after calibration and at 18degree C to 28degree C with relative humidity to 75%.

GENERAL SPECIFICATIONS

- Max. Voltage between terminates and Earth Ground: 5000V DC.
- DISPLAY= 16X2 Jumbo Alpha Numeric.
- POWER SUPPLY: 230V AC, 50HZ ($\pm 10\%$).
- Operating Humidity: $\leq 85\%$ RH.
- Strong Temperature: -10degree C to 50 degree C.
- Dimensions: L X H X W
- Weight: Approx (Including Power Cord).

ELECTRICAL SPECIFICATIONS

RANGE	20GΩ/1KV	50GΩ/2.5KV	100GΩ/5KV
Test Voltage	DC 1000V $\pm 5\%$	DC 2500V $\pm 5\%$	DC 100G $\Omega \pm 10\%$
Measuring Range	0~20G Ω	0~50G Ω	0~100G Ω
Accuracy	$\pm 3.0\%$ rdg ± 5 digits	$\pm 3.0\%$ rdg ± 5 digits	$\pm 5\%$ rdg ± 5 digits

ACCESSORIES:

- TEST LEADS
- POWER CORD (AC 230V)
- OPERATION MANUAL
- Manufacturer's Calibration Certificate