



EMPOWERING
MEASUREMENT

IT-250G *spot*

Compactly Crafted for Field Test Engineers



5KV Digital Insulation and Continuity Tester

Spot Insutester

The Motwane had been offering comprehensive range of products designed in-house catering multiple segment of power and energy sector. Being pioneer in insulation testing the IT250G SPOT is a 5KV voltage selectable digital insulation tester measures digitally and also in analog. It is a battery operated most compact device made to give stable and reliable performance in energy intensive area. Auto power off enhance battery life and pleasant amber backlit allows user to work in dusk environment also.

It is ideally suited for insulation resistance testing during erection, commissioning or installation at electrical substations, preventive operation, maintenance and servicing of cables, transformers at industrial installations.

Having robust ABS body , the instrument comes with rugged strap which gives easy handling during transit and also in handling while testing at outdoor sites. The guard terminal features minimize the effects of surface leakages and give error free measurement. Loaded with multiple proposition, IT250G address routine insulation testing need of service providers.



APPLICATIONS

- Electrical contractors, Insulator Manufactures
- Electrical Equipments (Switchgear, Motors, Transformers, Machines etc.)
- Cables Manufacturers

SMART FEATURES

- Programmable timer from 1 sec to 99 minutes
- Internal Memory storage of 1000 readings.
- Auto Power Off to save battery
- Auto calibration at every start up.
- Continuity testing at 100mA Approx.
- GUARD terminal to eliminate surface leakages.
- Battery status indicator.
- Shock proof, heavy duty & shrouded test leads..

Spot Insutester

TECHNICAL SPECIFICATION

Test Voltage

- Nominal test voltage : DC 250V, 500V, 1000V, 2500V & 5000V
- Accuracy : $\pm 10\%$ +5 digit
- Short-circuit test current : $\leq 1.4\text{mA}$ ($\pm 0.5\text{mA}$)
- Overload Protection : 230V DC/AC rms for 30 sec

Insulation Resistance

- Insulation Range : 0.1M Ω to 250G Ω

Test Voltage	Max. Insulation Resistance	Accuracy \pm (% reading + Digit)
250V	12.5G Ω	$\pm (5\% + 5)$
500V	25G Ω	
1000V	50G Ω	
2500V	125G Ω	
5000V	250G Ω	

Note: - 1. Test Voltage accuracy $\pm (10\% + 5)$ is when tested by using 1000M Ω impedance probe motwane Make HV 30/HV 40 or equivalent.

Continuity (🔊)

- Insulation Range : 0.1M Ω to 250G Ω

Range	Accuracy	Overload Protection
0 - 200 Ω	$\pm (3\% + 10)$	230V DC/AC rms for 30 sec
Buzzer will sound $< 20\Omega$ approx.		
Open circuit voltage on continuity range is 8V approx.		
Short circuit current is $\leq 100\text{mA}$ approx. on Continuity range w.r.t GUARD / COM terminal. (battery should be in full charged condition)		

GENERAL SPECIFICATIONS

- Insulation Resistance measurement : DC 250V, 500V, 1000V, 2500V & 5000V
- Display : LCD display with Backlit (90 X 60mm)
- Dimensions (L X W X H) : 230 mm X 165 mm X 95 mm approx.
- Weight : 1.5 Kg approx. (without accessories)
- Default Test on time : 30 sec.
- Selectable test time : 1 sec. to 99 minutes.
- HV ON Indication : Visual & Audible.
- Data Storage functions : 1000 readings.
- Data Recall function.
- Auto discharge facility after every test.

Environmental

- Operating Temp. : 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$
- Storage Temp. : -20 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$
- Relative Humidity : 90% RH at 0 $^{\circ}\text{C}$ to 40 $^{\circ}\text{C}$ max. (Non Condensing).
70% RH at 40 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ max. (Non Condensing).

Power

- Power Supply : 8 X 1.5V AA size Alkaline batteries (IEC LR6)
- Power Consumption : 40mA approx.
- Battery status Indication : YES.
- Auto Power Off : After 15 min.

Idle sleep mode consumption 300 μA approx. (When not in use always keep the rotary switch at OFF position & remove the batteries from the battery compartment to save the Battery life).

GENERAL SPECIFICATIONS

Safety (CE Certifications)

- Measurement Category : CAT IV (600V)
Reinforced insulation
- Safety : According to EN 61010-1
- EMC : According to EN 61326-1
- IP Rating
(Dust & water protection) : IP 54

ACCURACY

- Accuracy is specified as \pm (% of reading + digits) and is valid at $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$, 55% RH $\pm 10\%$.
- Accuracy is valid from 10% of the range to 95% of the range.
- Temp. Coefficient = (0.2% X Specified accuracy) per degree centigrade referred to 25°C .
- Accuracy is not valid if "battery status indicator symbol blinks on display". In this case immediately replace the batteries.
- It is recommended that calibration equipment used to verify the accuracy of the instrument should be 10 times more accurate.
- It is recommended to recalibrate the instrument once in year.

ACCESSORIES

Standard Accessories

- Test Lead set (3 mtr. Long shrouded banana with crocodile clip)

Red lead for +ve terminal : 1 No.
Black lead for -ve terminal : 1 No.
Green lead for GUARD terminal : 1 No.
- Instruction Manual : 1 No.
- Calibration sheet : 1 No.
- Carrying Bag : 1 No.

Optional Accessories

- Test Lead set (10 mtr. Long shrouded banana with crocodile clip)
Red lead for +ve terminal : 1 No.
Black lead for -ve terminal : 1 No.
Green lead for GUARD terminal : 1 No.
- Test lead set 1 meter long with one end pointed tip & another with 4mm shrouded banana. (For continuity Range).

