

## High Voltage Insulation Test 15kV TIN8D



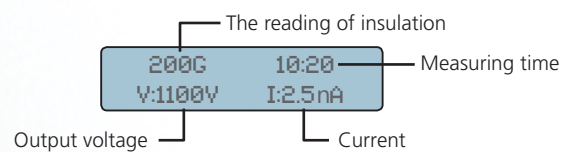
CAT IV 600V CE

- Test insulation resistance up to 30TΩ (30000GΩ)
- Short-circuit current up to 5mA
- Optical USB to RS-232 data transmission
- 30 Insulation test voltages
- Auto-ranging on all insulation ranges
- Backlight function
- Bar graph indicates test voltage, rise and decay
- 200 Measurement results can be saved in the memory and recalled on the display

**Application:** Testing insulation resistance of cables, motors, generators, transformers, insulators, high-pressure switches, wiring installations

### Display

2 Lines x 16 characters, large intelligent LCD module.



### Technical Overview

Feature	Parameter	Accuracy
Insulation Test DC Voltage (V)	500 - 15kV (500V increments)	±5.0% + 5 Digit
Current (A)	0.5nA - 0.55mA	Depend on insulation resistance
AC Voltage (V)	30 - 600V (50/60Hz)	±2.0% + 3 Digit
DC Voltage (V)	30 - 600V	±2.0% + 3 Digit
Insulation Resistance (Ω)	1000GΩ/0.5kV 1000GΩ at 0.5kV - 30TΩ at 15kV	±0.4% + 1 Digit
Short circuit current	up to 5mA	±0.5% + 1 Digit
PI	√	
DAR	√	
Display	3¾ Digits	3 000 Counts

### Model Specifications

Power Source	14.8V Lithium Ion Rechargeable Battery ( <b>TIN8DBATT</b> )
Standard Accessories	Test Leads with crocodile clips ( <b>TIN8DTLKT</b> ), Test Probe ( <b>TAL58</b> ), Data Transmission Cable and CD, Charger ( <b>TIN8DCHARGE</b> ), Instruction Manual, Test Report
Certificates	EN 61010-1, EN 61010-2-030, EN 61326-1
Dimensions (mm)	430(L) x 324(W) x 127(D)
Weight (kg)	6.56

### Voltage

Generally conventional insulation testers are highly susceptible to damage when testing insulation resistance and there is a voltage present (AC V or DC V). The TIN8D, has the ability to switch to voltage detection mode without damaging the instrument once it detects the presence of voltage. Furthermore, it will also display the voltage readings on the LCD screen.

Prior to measuring insulation resistance, this new and unique function, allows the user to safely rule out the possibility of voltage being present on the measured object.



### Dielectric Absorption Ratio

1. The dielectric absorption ratio (DAR) is the ratio of the insulation resistance measured at 1 min divided by the insulation resistance measured at 30 seconds.

$$\text{DAR} = \frac{\text{1min insulation resistance}}{\text{30s insulation resistance}}$$

2. The tester will beep 30 seconds after starting the test, indicating that the resistance value measured at 30 seconds has been saved internally.
3. The tester will beep again 1 minute after starting the test, indicating that the DAR result has been calculated.
4. The display format will change to indicate the DAR result

### Polarization Index

1. The polarization index (PI) is the ratio of the insulation resistance measured at 10 minutes divided by the insulation resistance measured at 1 minute.

$$\text{PI} = \frac{\text{10min insulation resistance}}{\text{1min insulation resistance}}$$

2. The tester will beep again, 10 minutes after starting the test, indicating that the PI result have been calculated.
3. The display format will change to indicate the PI result.

Cables with lower insulation resistance take longer to test, which results in a deterioration of the cable. A higher DAR or PI (Value closer to 1) would indicate a better insulation quality of the cable.