METRAVI
Setting Trends. Showing the Way.

Digital Insulation Resistance Tester

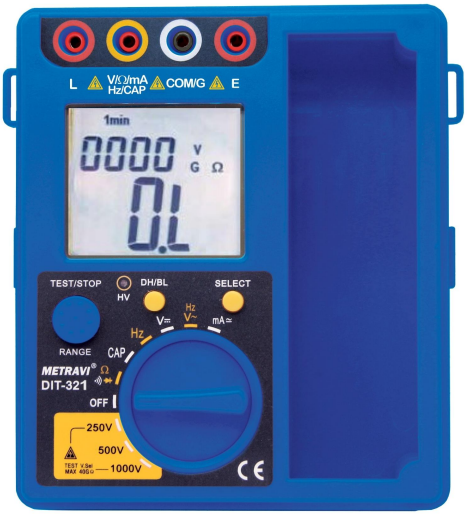
DIT-321
DIT-322

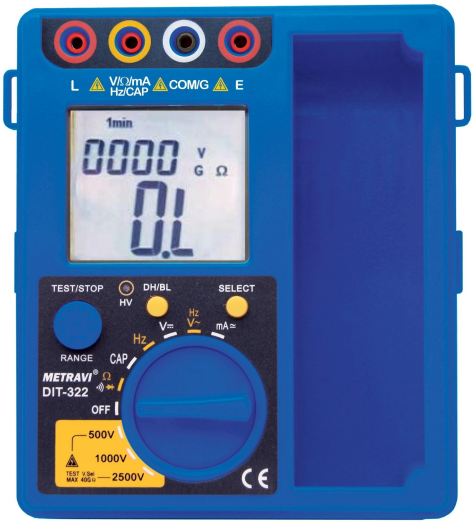
INTRODUCTION

Metravi DIT-321 and DIT-322 Auto-range Digital Insulation Resistance Testers are a combination of Insulation Resistance Testers and Digital Multimeters. They Have complete functions, features, high accuracy, reliability in operation and convenience in use. Output test voltage can be switched between 250V/500V/1000V/2500V, depending on different models.

An ordinary insulating resistance meter cannot measure the output high voltage of its own. When the output high voltage of the insulating resistance meter doesn't confirm to the rated value, it is not easy for the user to find the unconformity, and the deviation of the measured result is quite big sometimes, which causes hidden troubles related to safety.

While Metravi DIT-321 has test voltage range of 250V / 500V / 1000V the DIT-322 has test voltage range of 500V / 1000V / 2500V.





Metravi DIT-321 and DIT-322 can monitor the output high voltage in real-time. At any time, the user can observe actual voltage that is delivered by the meter, effectively avoiding misjudgment caused due to output voltage not confirming to the rated value. The measurement range of the meter can reach up to 40GΩ. The measurement time can be set up according to requirements. After a measurement is completed, the measured result can be saved automatically.

Functions of the digital multimeter include AC/DC Voltage, AC/DC Current, Resistance, Capacitance, Frequency, Diode, and Continuity Measurement. These functions are completely separated from those of the Insulation Resistance Tester. While using functions of the multimeter, you need not be worried that you would suffer electric shock due to high voltage generated by the insulation resistance tester.

The product is used to measure the insulation resistance of various insulating materials and electric equipments such as Transformers, Motors, Cables, Switches, and Electric apparatus. It is also applicable for maintenance, test, and inspection of various electric equipment. It is compact in structure, convenient to carry, and an ideal electrical and electronic testing meter.

GENERAL SPECIFICATIONS

- Auto Range : "OL" will be displayed for overload.
- Display Mode : 3-3/4 Digits backlit LCD; maximum display 4000 counts
- Sampling Rate : 2 times per second.
- Data Hold to Freeze the Displayed Data
- The meter can display actual insulation test voltage. LED light is used to indicate high voltage output status.
- Operating Environment : 0°C-40°C, less than 75%RH.
- Storage Environment : -10°C-60°C, less then 80%RH.
- Maximum Power Consumption : 4.5W; minimum power consumption 18mW.
- Indication for insufficient battery capacity: " [+ −] " is displayed.
- Power Supply : 6 pieces of AA 1.5V battery (LR6×6)
- Auto Power-off : The multimeter is turned off automatically in approx. 15 minutes after it is turned on if no key is pressed or the knob is not turned.
- External Dimension : 170 (length)× 156 (width)× 64 (height) mm
- Weight : Approx. 650 grams (including the battery)

*Technical Specifications & Appearance are subject to change without prior notice

METRAVI
Setting Trends. Showing the Way.

Digital Insulation Resistance Tester

DIT-321
DIT-322

TECHNICAL SPECIFICATIONS:

Accuracy:±% reading ± number, one-year warranty
Environment to guarantee the accuracy: 23°C±5°C, less than 75%RH.

Insulating Resistance Tester

Rated voltage	Measurement range	Accuracy
250V (only DIT-321)	0.25M-400MΩ	0.2M-200MΩ : ±3%rdg±5, 200M-4GΩ : ±5%rdg±5, 4G-40GΩ : ±10%rdg±5
500V	0.5MΩ-4GΩ	
1000V	1.5M-40G	
2500V (only DIT-322)	5M-40GΩ	

Display Range

Rated voltage	Display range (auto range)	Resolution
250V (only DIT-321)	4M/40M/400MΩ	1k/10K/100KΩ
500V	4M/40M/400M/4GΩ	1k/10K/100K /1MΩ
1000V	40M/400M/4G/40G	10k/100K/1M /10MΩ
2500V (only DIT-322)	40M/400M/4G/40GΩ	10k/100K/1M /10MΩ

Characteristics of the Measurement Terminal

Rated voltage	Allowed range of open circuit voltage	The measurement resistance value that can maintain lower limit of the rated voltage	Short circuit current
250V	90%-110% of the rated voltage	250KΩ (ERR is displayed when it is less than 200KΩ)	Not less than 1.5mA
500V		500KΩ (ERR is displayed when it is less than 400KΩ)	
1000V		1.5MΩ (ERR is displayed when it is less than 1MΩ)	
2500V		5MΩ (ERR is displayed when it is less than 2MΩ)	

DC Voltage (DCV)

Range	Accuracy	Resolution
400mV	±(0.5%+5d)	1mV
4V		10mV
40V		100mV
400V		1V
1000V	±(0.8%+5d)	1V

Input impedance : 400mV>1000MΩ; 10MΩ for other ranges.
Maximum input voltage : DC or AC peak value 1000V.

AC Voltage (ACV)

Range	Accuracy	Resolution
4V	±(0.8%+5d)	0.1mV
40V		10mV
400V		100mV
700V	±(1%+5d)	1V

Frequency range : 40Hz~400Hz (400V and 700V range is 40Hz~100Hz).
Maximum input voltage: DC or AC peak value 1000V.
Display : Average (Sine wave virtual value calibration)

DC Current (DCA)

Range	Accuracy	Resolution
40mA	±(0.8%+5d)	10mA
400mA		100mA

Overload protection : 0.5A/250V fuse.

AC Current (ACA)

Range	Accuracy	Resolution
40mA	±(1%+5d)	10mA
400mA		100mA

Overload protection : 0.5A/250V fuse.

Resistance

Range	Accuracy	Resolution
400Ω	±(0.8%+5d)	0.1Ω
4kΩ		1Ω
40kΩ		10Ω
400kΩ		100Ω
4MΩ	±(1%+3d)	1kΩ
40MΩ	±(2%+3d)	10kΩ

Overload protection : 250V RMS

Capacitance

Range	Accuracy	Resolution
40nF	±(3%+5d)	10pF
400nF		100pF
4μF		1nF
40μF		10nF

Overload protection: 250V RMS

Frequency (FREQ)

Range	Accuracy	Resolution
40Hz	±(0.5%+3d)	0.01Hz
400Hz		0.1 Hz
4KHz		1 Hz
40KHz		10 Hz
400KHz		100 Hz
4MHz		1K Hz

Overload protection: 250V RMS

Forward Voltage of the Diode

Display approximate forward voltage value of the diode. Test condition: Forward DC current of approx. 0.5mA, reverse DC voltage of approx. 1.5V.

Continuity Test

When the ON resistance measured is less than approx. 380Ω, the buzzer in the meter buzzes. Test condition: open circuit voltage of approx. 0.5V.

*Technical Specifications & Appearance are subject to change without prior notice