

INTRODUCTION

The high voltage insulation resistance tester is a handheld instrument designed primarily to measure AC/DC voltage, Resistance, Continuity test/insulation resistance.

SAFETY INFORMATION

This insulation resistance tester complies with the standards IEC61010 safety measurement requirement in pollution degree 2, over voltage category (CAT IV 600V) and double insulation.

FEATURES

The Tester is a microcomputer controlled, High Voltage Insulation Resistance Tester with 4-range for measuring Insulation Resistance and AC/DC Voltage, Resistance/Continuity test.

- Designed to following safety standards:
IEC 61010-1 (CAT IV 600V Pollution degree 2)
IEC 61010-031 (Requirements for hand-held probes)
- Insulation test range : 0.1M Ω to 60G Ω
- Insulation test voltage : 500V, 1000V, 2500V, 5000V
- AC/DC Voltage : 0.5V to 600V
- 200mA Continuity
- Resistance : 0.1 Ω to 6k Ω
- With auto-discharge function & voltage output warning function
When insulation resistance like a capacitive load is measured, electric charges stored in capacitive circuits are automatically discharged after measuring. Discharge can be checked with live voltage graph.
- Backlight levels selector function to facilitate working at dimly illuminated location or at nighttime work
- Live circuit warning symbols plus audible warning
- Live circuit detection prevents insulation test if voltage > 30V is detected for added user protection
- With Auto-power off function & battery check
- With timer measurement function. Automatically performs a measurement at the set time
- With Polarization index measurement (P)
The polarization index can be measured by the automatic measurement function of the ratio of resistance in 1 min and 10 min. two point time and automatic (Pass/Fail)
- With Dielectric absorption ratio measurement (DAR)
The Dielectric absorption ratio measured by the automatic measurement function of the ratio of resistance in 30 sec. and 1 min. two point time and automatic (Pass/Fail)
- Auto ranging with larger 6000 counts LCD display with bargraph
- Max/Min, Peak, Relative value & Data hold functions for DC/AC voltage measurements
- Power source 1.5V x 8 (LR14/R14) Batteries
- **230V AC 50Hz Mains cum Battery Operated**



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

TECHNICAL SPECIFICATIONS

Insulated Resistance Measurement				
Rated Voltage	500V	1000V	2500V	5000V
Measuring Range (Auto Ranging)	0.005 to 6.000M Ω	0.005 to 6.000M Ω	0.05 to 60.00M Ω	0.05 to 60.00M Ω
	6.01 to 60.00M Ω	6.01 to 60.00M Ω	60.1 to 600.0M Ω	60.1 to 600.0M Ω
	60.1 to 600.0M Ω	60.1 to 600.0M Ω	0.61 to 6.000G Ω	0.61 to 6.000G Ω
	0.61 to 6.00G Ω	0.61 to 6.000G Ω	6.1 to 60.00G Ω	6.1 to 60.00G Ω
Open Circuit Voltage	DC 500V+20%, -0%	DC 1000V +20%,-0%	DC 2500V +20%,-0%	DC 5000V +20%,-0%
Rated Current	1 to 1.2mA (at 0.5M Ω load)	1 to 1.2 mA (at 1M Ω load)	1 to 1.2 mA (at 2.5M Ω load)	1 to 1.2 mA (at 5M Ω load, Recomm- ended use of the Power Adaptor)
Short-Circuit Current	Approx. 1mA			
Accuracy	$\pm 2.5\%$ reading ± 15 digits (at 0.005 to 600.0M Ω) $\pm 3\%$ reading ± 15 digits (at 0.61 to 6.00M Ω) $\pm 4\%$ reading ± 15 digits (at 6.1 to 60.0G Ω)			
Voltage Monitor Range	5 to 6000VDC (Resolution 1V); Accuracy: $\pm 1.5\%$ reading ± 5 digits Note: This monitor is used to check whether electric charge stored on the equipment under test is discharged or not. Measured voltage value displayed on the LCD is a reference value. Please be noted that the indicated value, when external AC or DC Voltage is applied to the instrument is not the correct value, is display ">30V".			

DC/AC Voltage Measurement

	Range	Resolution	Accuracy
DC Voltage	0.5 to 600.0V	0.1V	$\pm 1.0\%$ reading ± 5 digits
AC Voltage (40 to 400Hz)	0.5 to 600.0V	0.1V	$\pm 1.0\%$ reading ± 5 digits (40 to 60 Hz) $\pm 2.5\%$ reading ± 10 digits (61 to 400Hz)

Low Resistance Measurement & Continuity Check

	Range	Resolution	Accuracy
Resistance	0.1 to 600.0 Ω	0.1 Ω	$\pm 1.5\%$ reading ± 10 digits
(Auto-Ranging)	601 to 6.000k Ω	0.001k Ω	$\pm 1.5\%$ reading ± 15 digits
Continuity Buzzer : $\leq 50\Omega$			
Short Circuit Current : ≥ 200 mA			
Open Circuit Test Voltage : ≥ 4.5 V			

GENERAL SPECIFICATIONS

Applicable standards	IEC 1010 CAT IV 600V overvoltage and double insulation standard
Display	6000 counts LCD display with bargraph
Sampling rate	2.5 readings per second
Over range indicator	"OL" displayed
Fuse	500mA/600V (ϕ 6X32mm) ceramic 3AG Fast blow
Zero adjust Automatic Auto power off	Power off function operates automatically after a switch remains for 20 min (current consumption approx. 50uA)
Low battery indicator	Low battery symbol displayed when battery voltage is low
Environmental Installation	8 x 1.5V (R14) batteries
Operating conditions	0 to 40°C (32 to 104°F); <80% RH
Storage condition	-10 to 60°C (14 to 140°F); 80% RH
Dimensions	198(L) x 148(W) x 86(D) mm
Weight	1438g

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