

High Voltage Digital Insulation Tester

Technical Data



K3125

The K3125 is microprocessor controlled and is capable of performing tests from 500V up to 5000V, and will automatically discharge the circuit after the test has been completed. The meter is a battery powered instrument and operates on a simple and clear basis. The K3125 has the capabilities of being a diagnostic tool and is intended for testing insulation on Rotating Machines, Transformers, Cables, High Voltage Generators, Electrical Circuits and Surge Arresters. These readings are displayed on the large LCD display with a bargraph together with the actual output voltage thus making it easy for the user to read the results. Once the meter test is completed it will automatically discharge the apparatus under test and indicate the discharge voltage on the display while the meter is still on.

Features Include:

- Measures DC Voltage in 500V, 1000V, 2500V and 5000V
- Large LCD Display with bargraph and backlight
- Polarization index measurement (PI)
- Indication of output voltage and discharge voltage
- Insulation resistance up to 1000GΩ
- Withstand Voltage test up to 5320V
- Auto discharge function and voltage output warning
- Measuring time up to 10 Hours
- Live circuit warning symbols plus audible warning
- 2 Built-In Timers
- Auto power off and battery check

General Specifications

Operating System	: Dual Integration
Display	: Liquid crystal display (Max. 999counts) (1000counts only at 1TΩ is displayed) AC.V range: Max 630points Bar graph/Max 36points
Low Battery Warning	: Battery mark display (in 4 levels)
Over Range Indication	: "OL" mark appears on insulation resistance range. "HI" mark appears on voltage range.
Voltage Warning Mark	: Voltage warning mark lights up during measurements. It flashes when a voltage of 30V or higher exists on the circuit.
Auto-Ranging	: Range shifts to upper range: 1000 counts Range shifts to lower range: 80 counts (only on the insulation resistance range)
Sample Rate	: approx. 0.5 ~ 5times/sec
Auto Power Off	: Power off function operates automatically after a switch remains for 10min. (current consumption: approx. 1μA)
Operable Altitude	: 2000m or less above sea level
Temperature and Humidity Range (guaranteed accuracy)	: 23°C±5°C/ relative humidity 85% or less (no condensation)
Operating Temperature and Humidity Range	: 0 ~ 40°C/ relative humidity 85% or less (no condensation)
Storage Temperature and Humidity	: -20°C ~ +60°C/ relative humidity 75% or less (no condensation)
Overload Protection	: Insulation resistance range: AC1200V/10sec Voltage range: AC720V/10sec
Withstand Voltage	: AC8320V(50/60Hz)/5sec, (between electrical circuit and enclosure)
Insulation Resistance	: 1000MΩ or more/DC1000V (between electrical circuit and enclosure)
Dimensions	: 205(L) X 152(W) X 94(D) mm approx.
Weight	: approx. 1.8kg (including battery)
Power source	: DC12V: Alkaline battery size C (LR14) X8pcs or equivalent)
Current Consumption	: approx. 1A (max)



Measuring Range and Accuracy (Temperature, humidity: 23 ± 5°C, relative humidity 45 ~ 75%)

Measurement	Rated Voltage	500V	1000V	2500V	5000V	
Insulation Resistance Tester	Measuring Range	0.0 ~ 99.9MΩ 100 ~ 999MΩ	0.0 ~ 99.9MΩ 100 ~ 999MΩ 1.00 ~ 9.99GΩ	0.0 ~ 99.9MΩ 100 ~ 999MΩ 1.00 ~ 9.99GΩ 10.0 ~ 99.9GΩ	0.0 ~ 99.9MΩ 100 ~ 999MΩ 1.00 ~ 9.99GΩ 10.0 ~ 99.9GΩ 100 ~ 1000GΩ	
	Open Circuit Voltage	DC500V +30%. -0%	DC1000V +20%. -0%	DC2500V +20%. -0%	DC5000V +20%. -0%	
	Rated Current	1mA or more. 1.2mA or less (at 0.5MΩ load)	1mA or more. 1.2mA or less (at 1MΩ load)	1mA or more. 1.2mA or less (at 2.5MΩ load)	1mA or more. 1.2mA or less (at 5MΩ load)	
	Short Circuit Current	Approx. 1.3mA				
	Accuracy	±5%±3dgt				100GΩ or more. ±20%rdg
Measurement	DC Voltage		AC Voltage			
Voltmeter	Measuring Range		±30 ~ 600V		30 ~ 600V (50/60Hz)	
	Resolution		1V			
	Accuracy		±2%rdg±3dgt			
Range	500V	1000V	2500V	5000V	AC.V	
Output at short circuit	220mA				110mA * at voltage measurement	
When rated current is outputted	650mA/0.5MΩ	700mA/1MΩ	800mA/2.5MΩ	1000mA/5MΩ		
Output at open circuit	40mA	50mA	80mA	120mA		
On standby	25mA				110mA	
When backlight is on	Increased by 35mA					