

CAT III 1000V, True RMS

TRUE RMS DMM

Model : DM-9961

ISO-9001, CE, IEC1010



Features :

- * Heavy duty CAT III-1000V category.
- * 4000 counts, auto/manual range.
- * Large LCD, digit height 23 mm.
- * ACV, ACA, DCV, DCA, ohms, continuity buzzer.
- * Hz/Duty cycle, Capacitance, diode.
- * Data hold, Relative, range hold.
- * High input impedance for mV range.
- * 10 Amp. current with fuse protection.
- * Size : 194 x 89 x 40 mm.



Model : DM-9961

Lutron

LUTRON ELECTRONIC

The Art of Measurement

True RMS

AUTO RANGE MULTIMETER

*CAT III-1000 V category, Auto range, REL, Capacitance
Hz, Duty, ACV, ACA, DCV, DCA, Ohms*

1. FEATURES

- * True RMS ACV, ACA measurement
- * Meet IEC 1010 CAT III 1000 V safety requirement.
- * Large LCD display with measurement unit.
- * Multi function measurement. DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Duty, Diode, Continuity beeper.
- * Data hold.
- * Relative measurement.
- * Auto range with manual range selection.
- * When make the ACV, ACA measurement, it also can measure the signal frequency, % duty at the same time.
- * 4000 counts A/D, high resolution.
- * Both 10 A, mA, uA current are build fuse for safety consideration.
- * 10 M ohm impedance for voltage circuit.
- * Operates from one DC 9V battery,
- * Built-in overload protection for most ranges.
- * Uses durable, long-lasting components, enclosed in strong, light weight ABS-plastic housing.
- * Full line optional adapters : Clamp adapter, Tachometer adapter, Pressure adapter, Humidity Adapter, Sound level adapter, Anemometer adapter, Light adapter, EMF adapter.

2. SPECIFICATIONS

2-1 General Specifications

Display	65 mm x 48 mm large LCD display with bar graph indicator.
Measurement	DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Duty, Diode, Continuity beeper.
A/D counts no.	4000 counts.
Range selection	Auto range with manual range selecting.
Special function	Relative measurement, Data hold.
Data hold	To freeze the display reading on the LCD display.
Power On/Off management	Auto power of or manual power off. <i>@ Details please refer page 8</i>
Relative measurement	To offset the measurement value.
Polarity	Automatic Switching, " - " indicates negative polarity.
Zero adjustment	Automatic.
Sampling time	Approx. 0.5 to 1 second.
Operating Temp. & humidity	0 to 50 °C (32 to 122 °F), Max. 80% RH.
Power supply	006 p dc 9V battery.
Power consumption	Approx. DC 1.7 mA.
Dimension	185 x 88 x 40 mm (7.3 x 3.5 x 1.6 inch)
Weight	350 g/0.77 LB.
Accessories Included	Red and Black Test Leads (CAT III 1KV Test Leads)..... 1 Set 0.5 Amp Spare Fuse..... 1 PC Instruction Manual..... 1 PC
Optional accessories	Full line adapters : ACA/DCA current adapter, Tachometer adapter, Humidity adapter, Pressure adapter, Light adapter, EMF adapter, Sound level adapter, High voltage probe.

2-2 Electrical Specifications (23± 5°C)

DC Voltage	
Range	400.0 mV /4 V/40 V/400 V/1000 V
Resolution	0.1 mV /1 mV /10 mV /100m V/1 V
Accuracy	± (0.5%+2d)
Input impedance	10 M ohm.
Over load protection	± 500 DCV, 350 ACV - 200 mV range. ± 1000 DCV, 1000 ACV - other ranges.

AC Voltage (True RMS)	
Range	400.0 mV /4 V/40 V/400 V/1000 V
Resolution	0.1 mV /1 mV /10 mV /100m V/1 V
Accuracy	± (1%+2d) <i>* Spec. are tested under 50/60 Hz.</i>
Input impedance	10 M ohm.
Over load protection	± 500 DCV, 350 ACV - 200 mV range. ± 1000 DCV, 1000 ACV - other ranges.

AC Current (True RMS)	
DC Current	
Range	10 A/400 mA/40 mA/4000 uA/400 uA
Resolution	10 mA/0.1 mA/0.01 mA/1 uA/0.1 uA
Accuracy	400 mA/40 mA/4000 uA/400 uA : ± (0.5%+2d) 10 A : ± (1.5%+2d) <i>* ACA spec. are tested under 50/60 Hz.</i>
Over load protection	10A range : 10A fuse. uA, mA range : 500 mA fuse.

Diode (Forward voltage, VF)	
Range	4 V DC.
Resolution	0.001 V.
Accuracy	± (0.5%+2d)

Capacitance	
Range	40 nF/400 nF/4 uF/40 uF/100 uF
Resolution	10 pF/0.1 nF/1 nF/10 nF/0.1 uF
Accuracy	± (3%+1d)

Frequency	
Range	4 Hz/40 Hz/400 Hz/4 KHz/40 KHz/ 400 KHz/4 MHz
Resolution	0.001 Hz/0.01 Hz/0.1 Hz/0.001 KHz/0.01 KHz 0.1 KHz/0.001 MHz
Accuracy	$\pm (0.5\% + 2d)$
Sensitivity	Min. 1.5 V rms, Max. 5 V rms.

Duty	
Range	1 % to 99 %
Resolution	0.1 %
Accuracy	$\pm 1\%$ duty
Measuring signal and level	Function switch set to " Hz " : 2 Vp-p to 5 Vp-p, square wave 10 KHz max.
	Function switch set to "ACV", "ACA" : 50 Hz to 500 Hz

OHMS		
Range	400/4 K/40 K/400 K/4 M/40 M ohm	
Resolution	0.1/1/10/100/1 K/10 K ohm	
Accuracy	400 ohm 4K/40K/400K/4 M	$\pm (0.5\% + 2d)$
	40 M	$\pm (2\% + 5d)$
Over load protection	± 500 DCV, 350 ACV	

Continuity Beeper	
Beeper will sound if measured resistance less than 20 ohm.	