

# DMM CAT III 1000V

Model : DM-9960

*ISO-9001, CE, IEC1010*



## FEATURES

- \* Meet IEC 1010 CAT III 1000 V.
- \* Large LCD display with bar graph indicator.
- \* Multi function measurement. DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity beeper.
- \* Max./Min., Peak value, Relative, Data hold.
- \* Auto range with manual range selection.
- \* °C/°F thermometer °
- \* VAHz button, when execute the ACV, ACA function also can measure the frequency of signal.
- \* 4000 counts A/D, high resolution.
- \* Build fuse for Both 10 A, mA, uA current range.
- \* 10 M ohm input impedance for voltage circuit.
- \* Full line optional adapters.



**LUTRON ELECTRONIC**

***The Art of Measurement***

# AUTO RANGE MULTIMETER, CAT III 1000V

## Model : DM-9960

### FEATURES

|  |   |
|--|---|
| * Meet IEC 1010 CAT III 1000 V safety requirement.   | * Both 10 A, mA, uA current are build fuse for safely consideration.  |
| * Large LCD display with bar graph indicator.  | * 10 M ohm impedance for voltage circuit.   |
| * Multi function measurement. DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity beeper. | * Operates from 2 PCs UM4 1.5 V batteries.  |
| * Max./Min., Peak value, Relative, Data hold.  | * Built-in overload protection for most ranges.   |
| * Auto range with manual range selection.  | * Photo couple RS 232 computer serial interface.  |
| * °C/°F thermometer, optional Temp. probe.   | * Uses durable, long-lasting components, enclosed in strong, light weight ABS-plastic housing.  |
| * VAHz button, when execute the ACV, ACA function also can measure the frequency of signal.                                  | * Full line optional adapters : Clamp adapter, Tacheometer adapter, Pressure adapter, Humidity Adapter, Soud level adapter, Anemometer adapter, Light adapter, EMF adapter. |
| * 4000 counts A/D, high resolution.  |   |

### GENRAL SPECIFICATIONS

|                      |  |                       |   |
|----------------------|--|-----------------------|---|
| Display              | 65 mm x 48 mm large LCD display with bar graph indicator.                                      | Sampling time         | Approx. 0.5 to 1 second.  |
| Measurement          | DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity beeper. | Operating temperature | 0 °C to 50 °C (32 °F to 122 °F).  |
| A/D counts no.       | 4000 counts.   | Operating humidity    | Max. 80% RH.  |
| Range selection      | Auto range with manual range selecting.  | Power supply          | 1.5 V battery x 2 PCs UM-4/AAA/Micro/R03 type   |
| Special function     | Max./Min., Peak value, Relative measurement, Data hold.  | Power consumption     | Approx. DC 2.5 mA.  |
| Data hold            | To freeze the display reading on the LCD display.  | Dimension             | 185 x 88 x 40 mm ( 7.3 x 3.5 x 1.6 inch ).  |
| Memory recall        | Records Maximum & Minimum readings with recall.  | Weight                | 350 g/0.77 LB.  |
| Peak value           | To measure the signal peak value.  | Accessories Included  | Red and Black Test Leads..... 1 PC.<br>0.5 Amp Spare Fuse..... 1 PC.<br>Instruction Manual..... 1 PC.   |
| Relative measurement | To offset the measurement value.   | Optional accessories  | Full line adapters :<br>ACA/DCA current adapter,<br>Humidity adapter, Pressure adapter,<br>Light adapter, EMF adapter,<br>Sound level adapter,<br>High voltage probe. |
| VAHz button          | When execute the ACV, ACA function also can measure the frequency of signal.                   |                       |   |
| Data output          | RS 232 PC serial interface, photo couple.  |                       | Soft carrying case.....CA-05A   |
| Polarity             | Automatic Switching, " - " indicates negative polarity.  |                       | Temperature probe.....LN-N01 W/TP-01  |
| Zero adjustment      | Automatic.   |                       | RS232 cable.....UPCB-06   |

### ELECTRICAL SPECIFICATIONS (23± 5 °C)

| DC Voltage   |  | CAPAITANCE                           |   |
|--|--|--------------------------------------|---|
| Range  | 400.0 mV / 4 V/ 40 V/ 400 V / 1000 V   | Range                                | 4 nF/40 nF/400 nF/4 uF/40 uF/400 uF<br>4 mF/40 mF   |
| Resolution   | 0.1 mV /1 mV /10 mV /100m V/1 V  | Resolution                           | 1 pF/10 pF/0.1 nF/1 nF/10 nF/0.1 uF<br>1 uF/10 uF   |
| Accuracy   | ± ( 0.5% reading+ 2d ) - 400 mV.<br>± ( 0.8% reading+ 1d ) -4V,40V,400V,1000V.   | Accuracy                             | ± ( 3 % reading+ 1 d )  |
| Input impedance  | 10 M ohm.  |                                      |   |
| Over load protection                                       | 00 DCV, 350 ACV - 200 mV range.<br>000 DCV, 1000 ACV - other ranges.   |                                      |   |
| AC Voltage   |  | Frequency                            |   |
| Range  | 400.0 mV / 4 V/ 40 V/ 400 V / 1000 V   | Range                                | 4 KHz/40 KHz/400 KHz 4 MHz/40 MHz   |
| Resolution   | 0.1 mV /1 mV /10 mV /100m V/1 V  | Resolution                           | 1 Hz/10 Hz/0.1 KHz/1 kHz/0.01 MHz/0.1 MHz   |
| Accuracy   | ± ( 1% reading+ 2d )<br>* Spec. are tested under 50/60 Hz.   | Accuracy                             | ± ( 0.5% reading+ 2d )  |
| Input impedance  | 10 M ohm.  |                                      |   |
| Over load protection                                       | ± 500 DCV, 350 ACV - 200 mV range.<br>± 1000 DCV, 1000 ACV - other ranges.   |                                      |   |
| DC Current, AC Current                                     |  | OHMS                                 |   |
| Range  | 10 A/400 mA/40 mA/4000 uA/400 uA   | Range                                | 400/4 K/40 K/400 K/4 M/40 M ohm   |
| Resolution   | 10 mA/0.1 mA/0.01 mA/1 uA/0.1 uA   | Resolution                           | 0.1/1/10/100/1 K/10 K ohm   |
| Accuracy   | 400 uA : ± ( 1 % reading+ 2d )<br>4000 uA : ± ( 1.5 % reading+ 2d )<br>40 mA : ± ( 1 % reading+ 2d )<br>400 mA : ± ( 1.5 % reading+ 2d )<br>400 mA : ± ( 1.5 % reading+ 2d )<br>* ACA spec. are tested under 50/60 Hz. | Accuracy                             | 400 ohm : ± ( 1 % reading+ 2d )<br>4K/40K/400K/4M : ± ( 1.5 % reading+ 2d )<br>40 M : ± ( 3 % reading+ 5d ) |
| Over load protection                                       | 10A range : 10A fuse.<br>uA, mA range : 500 mA fuse.   | Over load protection                 | ± 350 DCV, 350 ACV.   |
| Diode ( Forward voltage )                                  |  | Temperature                          |   |
| Range  | 2 V  | Range                                | -20 °C to 750 °C  |
| Accuracy   | ± ( 0.5% reading+ 2d )   | Resolution                           | 1 °C  |
| Continuity Beeper  |  | Accuracy                             | -20 °C to 300 °C : ± ( 1% reading+ 2 °C )<br>301 °C to 750 °C : ± 3% reading                                |
| Beeper will sound if measured resistance less than 20 hom. |  | * The temperature probe is optional. |   |

\* Appearance and specifications listed in this brochure are subject to change without notice.

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