

# 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**

**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 copuple 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.                                      | Zero adjustment       | Automatic.   |
| Measurement          | DCV, ACV, DCA, ACA, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity beeper. | Sampling time         | Approx. 0.5 to 1 second.   |
| A/D counts no.       | 4000 counts.   | Operating temperature | 0 °C to 50 °C (32 °F to 122 °F).   |
| Range selection      | Auto range with manual range selecting.  | Operating humidity    | Max. 80% RH.   |
| Special function     | Max./Min., Peak value, Relative measurement, Data hold.  | Power supply          | 1.5 V battery x 2 PCs UM-4/AAA/Micro/R03 type  |
| Data hold            | To freeze the display reading on the LCD display.  | Power consumption     | Approx. DC 2.5 mA.   |
| Memory recall        | Records Maximum & Minimum readings with recall.  | Dimension             | 185 x 88 x 40 mm ( 7.3 x 3.5 x 1.6 inch ).   |
| Peak value           | To measure the signal peak value.  | Weight                | 350 g/0.77 LB.   |
| Relative measurement | To offset the measurement value.   | Accessories Included  | Red and Black Test Leads..... 1 PC.<br>0.5 Amp Spare Fuse..... 1 PC.<br>Instruction Manual..... 1 PC.  |
| VAHz button          | When execute the ACV, ACA function also can measure the frequency of signal.                   | Optional accessories  | Full line adapters :<br>ACA/DCA current adapter, adapter, Tachometer adapter, Humidity adapter, Pressure adapter, Light adapter, EMF adapter, Sound level adapter, High voltage probe. |
| Data output          | RS 232 PC serial interface, photo couple.  |                       | Temperature probe..... TP-11<br>RS232 cable..... UPCB-06   |
| Polarity             | Automatic Switching, " - " indicates negative polarity.  |                       |  |

## ELECTRICAL SPECIFICATIONS (23± 5 °C)

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

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

0404-DM9960

# Type K Temperature Probe

Model : TP-11

*ISO-9001, CE, IEC1010*



## FEATURES

- \* Optional temperature probe for DMM, DM-9960.
- \* Type K thermocouple temperature probe.
- \* Measure Range : -40 °C to 250 °C, -40 °F to 482 °F.
- \* Ultra fast response naked-bead thermocouple, general purpose application.



**Lutron**

**LUTRON ELECTRONIC**

*The Art of Measurement*