

USB/RS232, True RMS

2000A DCA/ACA CLAMP + DMM

Model : CM-9930R

ISO-9001, CE, IEC1010



Lutron

LUTRON ELECTRONIC

The Art of Measurement

USB/RS232, True RMS 2000 A DCA/ACA CLAMP METER + DMM

Model : CM-9930R

FEATURES

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|---|
| * 2 in 1, 2000 A clamp meter + Digital multimeter. |
| * Design meet IEC 1010 CATIII 1000V safety requirement. |
| * True rms reading for ACV & ACA measurement. |
| * 4000 counts, Auto range, multi-functions for ACA, DCA, ACV, DCV, Ohms, Capacitance, Hz, Duty cycle, diode and continuity check. |
| * Wide ranges (2000A, 400 A) clamp on current measurement both for ACA & DCA. |
| * 4 ranges (400 uA, 4000 uA, 40 mA, 400 mA) direct current input measurement both for ACA & DCA. |
| * LSI circuit provides high reliability and durability. |
| * Overload protection circuit is provided for all ranges. |
| * Data hold, Relative key, Back light. |
| * RS232/USB PC COMPUTER interface. |
| * Compact & heavy duty ABS and fireproof plastic case. |

GENERAL SPECIFICATIONS

| | |
|---------------------------------|--|
| Display | 15 mm (0.6") LCD, 4 digits, Max. indication 4000. |
| Measurement Range | ACA, DCA, ACV, DCV, Ohms, Diode, Hz, Capacitance, Duty cycle, Continuity beeper. |
| Polarity | Automatic Switching, "-" indicates negative polarity. |
| Current Sensor | Hall effect sensor. |
| Zero adjustment | DCA : Push bottom adjustment. Other ranges : Automatic adjustment. |
| Over-input | Indication of " OL " or " -OL ". |
| Sampling Time | Approx. 0.35 second. |
| Data Output | RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug. * Connect the optional USB cable USB-01 will get the USB plug. |
| Battery | DC 9V battery, heavy duty or Alkaline type, 006P, MN1604 (PP3) or equivalent. |
| Power Consump. | Approx. DC 5 mA. |
| Operating Temp. | 0 °C to 50 °C (32 °F to 122 °F). |
| Operating Humidity | Less than 80% RH. |
| Weight | 380 g/0.85 LB (including battery). |
| Dimension | HWD : 255 x 73 x 38 mm. (10 x 2.9 x 1.5 inch) |
| Max. Jaw Open Size | 51 mm (2.1 inch) Dia. |
| Accessories Included | Operation manual.....1 PC Test lead (red & black).....1 Set Fuse (500 mA, 5 mm dia. x 20 mm)....1 PC |
| Optional Accessories & Adapters | * RS232 cable..... UPCB-02 * USB cable..... USB-01 * Data Acquisition softwareSW-U801-WIN * Carrying case, EMF Adapter, Light Adapter, Anemometer Adapter, Pressure Adapter, Sound Adapter, Tachometer Adapter, High Voltage Probe. |

ELECTRICAL SPECIFICATIONS (23 ± 5 °C)

| Function | Range | Resolution | Accuracy | Overload Protection |
|--------------------------------|------------------|------------|--------------------------|-----------------------|
| DC/AC Voltage | 400 mV (DC only) | 0.1 mV | ± (0.5 % + 2d) | AC/DC 1000 V. |
| | 4 V | 0.001V | DCV: ± (1 % + 2d) | |
| | 40 V | 0.01V | ACV: ± (1.2 % + 5d) | |
| | 400 V | 0.1 V | | |
| | 1000V | 1 V | | |
| DC / AC Current (Direct input) | 400 uA | 0.1 uA | ± (1.2% + 5d) | AC/DC 500 mA (Fuse) |
| | 4000 uA | 1 uA | | |
| | 40 mA | 0.01 mA | | |
| | 400 mA | 0.1 mA | | |
| DC /AC current (Clamp on) | 400 A | 0.1 A | ± (2 % + 5 d) | AC/DC 2000A/1000V |
| | 2000 A | 1 A | ± (2 % + 8 d) | |

Remark :

- * True rms measurement both for ACV, ACA function.
- * Input impedance for ACV & DCV range is 10 Mega ohm.
- * ACA, ACV frequency response is from 45 to 1 KHz.
- * ACA, ACV specification be tested on sine wave 50/60 Hz.

| Function | Range | Resolution | Accuracy | Overload Protection |
|-------------------|--|------------|------------------|---------------------|
| Ohms | 400 ohm | 0.1 ohm | ± (1 % + 5 d) | AC / DC 400V |
| | 4 K ohm | 1 ohm | | |
| | 40 K ohm | 10 ohm | | |
| | 400 K ohm | 100 ohm | | |
| | 4 M ohm | 1 K ohm | | |
| | 40 M ohm | 10Kohm | ± (3.5 % + 5d) | |
| Capacitance | 50 nF | 10 pF | ± (3 % + 5d) | AC / DC 400V |
| | 500 nF | 100 pF | | |
| | 5 uF | 0.001 uF | | |
| | 50 uF | 0.01 uF | | |
| Frequency (> 5 V) | 5 Hz | 0.001 Hz | ± (1 % + 5 d) | AC / DC 1000V |
| | 50 Hz | 0.01 Hz | | |
| | 500 Hz | 0.1 Hz | | |
| | 5 KHz | 1 Hz | | |
| | 50 KHz | 0.01 KHz | | |
| | 100 KHz | 0.1 KHz | | |
| Duty cycle | 1 % to 99 % | 0.1 % | | |
| Diode | Short/non conductance, good/defect test | | | |
| Continuity | If rmeasuring esistance is less than 10 ohm, the beeper will sound . | | | |

Remark :

- * Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.
- * The accuracy of capacitance range are specified under that the " zero " procedure is executed before the measurement (push " REL. button).