

Inductance, Capacitance, + Temp., 6,000 counts  
RS232/USB computer interface

# MULTIMETER + LCR

Model : DM-9862

ISO-9001, CE, IEC1010

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*The Art of Measurement*

# 6000 counts, true rms MULTIMETER, + LCR

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## FEATURES

* Meet IEC 1010 CAT III 1000 V safety requirement.
* LCD with green light backlight, easy reading.
* 6000 counts A/D, high resolution.
* Multi function measurement. DCV, ACV, DCA, ACA, Resistance, Capacitance, Inductance, Frequency, Temperature, Diode, Continuity beeper.
* Max. & Min. measurement value with recall.
* Relative, Data hold.
* Auto range with manual range selection.
* Temperature measurement possibility.
* VAHz button, when execute the ACV, ACA function also can measure the frequency of signal.
* Both 10 A, mA, uA current are build fuse for safety consideration.
* 10 M ohm impedance for voltage circuit.
* Operates from 9 V ( 006P, MIN1604 ) batteries.
* Built-in overload protection for most ranges.
* Photo couple RS 232 computer serial interface.
* 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.

## GENERAL SPECIFICATIONS

Display	60 mm x 39.5 mm large LCD display
Measurement	DCV, ACV, DCA, ACA, Resistance, Diode, Continuity beeper, Capacitance, Inductance, Frequency, Temperature.
A/D counts no.	6000 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.
Memory recall	Records Maximum & Minimum readings with recall.
Relative measurement	To offset the measurement value.
VAHz button	When execute the voltage or current function also can measure the frequency of signal.
Data output	RS 232 PC serial interface, photo couple.
Polarity	Automatic Switching, " - " indicates negative polarity.
Zero adjustment	Automatic.
Sampling time	Approx. 0.5 to 1 second.
Operating Temp. & humidity	0 °C to 50 °C ( 32 °F to 122 °F ), Max. 80% RH.
Power supply	9 V ( 006P, MIN1604 ) DC 9V adapter input * AC/DC Power adapter is optional.
Power consumption	Approx. DC 5.5 mA.
Dimension	190 x 88 x 40 mm ( 7.5 x 3.5 x 1.6 inch ).
Weight	378 g/0.83 LB ( w/o battery ).
Accessories Included	Red and Black Test Leads ( CAT III 1KV Test Leads )..... 1 Set 0.63 Amp Spare Fuse.....1 PC Instruction Manual.....1 PC
Optional accessories	* Full line adapters : ACA/DCA current adapter, Pressure adapter, Light adapter, EMF adapter, Sound level adapter, High voltage probe. * AC to DC 9V adapter..... AP-9VA * Hoster.....HS-03 * Type K Temperature probe..... TP-11 * Soft carrying case..... CA-05A * RS232 cable..... UPCB-06

## ELECTRICAL SPECIFICATIONS (23± 5 °C)

### DC Voltage

Range	600.0 mV /6 V/60 V/600 V /1000 V
Resolution	0.1 mV /0.001V /0.01V /0.1V/1 V
Accuracy	± ( 0.5% + 2d ) 600 mV ± ( 0.8% + 1d ) 6 V, 60 V, 600 V, 1000 V
Input impedance	10 M ohm.
Over load protection	600 mV range ± 50 DCV, 50 ACV other ranges ± 1000 DCV, 1000 ACV

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

### AC Voltage ( True RMS )

Range	600.0 mV /6 V/60 V/600 V /1000 V
Resolution	0.1 mV /0.001V /0.01V /0.1V/1 V
Accuracy	± ( 1% + 2d ) * Spec. are tested under 50/60 Hz.
Input impedance	10 M ohm.
Over load protection	600 mV range ± 50 DCV, 50 ACV other ranges ± 1000 DCV, 1000 ACV

### DC Current, AC Current ( True RMS )

Range	10 A/6 A/600 mA/60 mA/6000 uA/600 uA
Resolution	0.01 A/0.001 A/0.1 mA/0.01 mA/1 uA/0.1 uA
Accuracy	DCA ACA 600 uA ± ( 0.5 % + 2d ) ± ( 1 % + 7d ) 6000 uA ± ( 0.5 % + 2d ) ± ( 1 % + 7d ) 60 mA ± ( 0.5 % + 2d ) ± ( 1% + 7d ) 600 mA ± ( 0.5 % + 2d ) ± ( 1 % + 7d ) 6 A ± (1.5 % + 2d) ± (1.5% + 2d) 10 A ± (1.5 % + 2d) ± (1.5 % + 2d) * ACA spec. are tested under 50/60 Hz.
Over load protection	10A range : 10A fuse. uA, mA range : 630 mA fuse.

### Diode ( Forward voltage, VF )

Range	2.9 V DC.
Accuracy	± ( 0.5 % + 2d )

### Capacitance

Auto Range	600 pF/6 nF/60 nF/600 nF/6 uF/60 uF/600 uF
Resolution	0.1 pF/0.001 nF/0.01nF/0.1 nF/0.001 uF/ 0.01 uF/0.1 uF/ 1 uF
Accuracy	600 pF ± ( 2.5 % + 5d ) 6 nF/60 nF/600 nF/ 6 uF/60 uF ± ( 1.5 % + 5d ) 100 uF/600 uF ± ( 5 % + 5d )
Over load protection	± 30 DCV, 30 ACV.
Test frequency	100Hz /1KHz /10KHz * Auto frequency configuration
Remark	Discharge capacitor before testing.

### Inductance

Auto Range	600 uH/6 mH/60 mH/600 mH/6 H/60 H/100 H
Resolution	0.1uH/0.001mH/0.01 mH/0.1 mH/0.001 H/ 0.01 H/0.1 H
Test frequency	100Hz /1KHz /10KHz * Auto frequency configuration
Accuracy	600 uH ± ( 5 % + 5d ) 6 mH/60 mH/600 mH/ 6 H ± ( 1.5 % + 5d ) 60 H/100 H ± ( 2.5 % + 5d )

### Frequency

Range	600 Hz/6 KHz/60 KHz/600 KHz/6 MHz/20 MHz
Resolution	0.1 Hz/0.001 KHz/0.01 KHz/0.1 KHz/ 0.001 MHz/0.01 MHz
Accuracy	± ( 0.5 % + 2d )
Sensitivity	Min. 1 V rms, Max. 5 V rms.

### OHMS

Range	600 Ω /6 KΩ /60 KΩ /600 KΩ /6 MΩ /60 MΩ
Resolution	0.1Ω /0.001 KΩ /0.01 KΩ /0.1 KΩ /0.001 MΩ / 0.01 MΩ
Accuracy	600 ohm : ± ( 1 % + 2d ) 6K/60K/600K/6 M : ± ( 1.5 % + 2d ) 60 M : ± ( 3 % + 5d )
Over load protection	± 350 DCV, 350 ACV.

### Continuity Beeper

Beeper will sound if measured resistance less than 20 ohm.
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### Max. & Min. Measurement

During the operation can memorize the maximum and the minimum measurement value.
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### Temperature

Auto Range	-100.0 °C to 199.9 °C, 200 °C to 1000 °C
Resolution	0.1 °C -100.0 °C to 199.9 °C 1 °C 200 °C to 1000 °C
Accuracy	± ( 1% + 1 °C )
Temp. probe	The temperature probe ( TP-11 ) is the optional accessory.

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