

New M61



ENHANCED FEATURES WITH INCREASED COUNTS

Applications



FEATURES

- Average , 6000 Count digital multimeter
- Big LCD display with white backlight
- Temperature measurement
- CATIII(1000V) Reinforced insulation
- Overload protection on all ranges
- Automatic Polarity
- Auto Power Off
- IP54



GENERAL SPECIFICATION

Display	: Digital with Analog Scale for Trend indication
Display Update Rate	: 3 times per second nominal.
Dimensions (WxHxD)	: 94 X 205 X 36 mm approx.
Weight	: 450g. approx.
Ranges	: DC Voltage:- 5, AC Voltage:- 4, Resistance-6, Capacitance-6, Frequency: - 7, DC Current-4, AC Current-4, Temperature-1.
Additional Functions	: Select, Range, Hold/Light, Rel, Hz/Duty, Max./Min, Diode, Continuity & Duty cycle measurement.
Environmental	:
Operating Temperature	: 0°C to 50°C
Storage Temperature	: - 20°C to 60°C
Relative Humidity	: 80% RH @ 50°C to 31°C , 50 % RH @ 31°C to 40°C Non-condensing
Power :	
Power Supply	: Battery 1.5V AAA size x 2 Nos.
Power Consumption	: 3.5 mA typical.
Low Battery Indication	: 'LO BAT' is displayed below 2.4V approx.

Auto Power OFF : After 15 min.
Idle Sleep mode consumption 300µA approx.

(When not in use, always keep the Rotary switch at OFF position to save the battery life).

Over Load Protection :

Fuse protection for 'mA/°C' Input Terminal	: 0.8A/250V fast blow type Ceramic fuse.
Fuse protection for 10A Input Terminal	: 10A/250V fast blow type Ceramic fuse
Ω / \rightarrow / \bullet / \rightarrow / Hz / (%)	: 230V DC/AC rms.

Safety :

CE Certifications

Directives for CE Certification	: LVD: 2006/95/EC.
	: EMC: 2004/104/EC.
Measurement Category	: CAT III (1000V) Reinforced insulation.
Relevant Standard Specification	: EN61010-1:2010, : EN61326-1:2006.
IP Rating (dust & water protection)	: IP 54.

Electromagnetic compatibility :

In RF field, overall accuracy is equal to 10% of reading +30 digits

TECHNICAL SPECIFICATION

DC VOLTAGE

Range	Resolution	Max. Reading	Accuracy ±(reading + digit)	Overload Protection
600mV	0.1mV	600.0mV	±(0.5%+3)	1050V DC/AC rms
6V	1mV	6.000V	±(0.5%+3)	
60V	10mV	60.00V	±(0.5%+3)	
600V	100mV	600.0 V	±(0.5%+3)	
1000V	1V	1000V	±(0.8%+3)	

Note: Input Impedance 10MΩ approx.

DC CURRENT RANGE

Range	Resolution	Max. Reading	Accuracy ±(reading+digit)	Overload Protection
60mA	0.01mA	60.00mA	±(1%+5)	0.8A/250V DC/AC fuse protection
600mA	0.1mA	600.0mA	±(1%+5)	
6A	1mA	6.000A	±(1%+5)	10A/250V DC/AC fuse protection
10A	10mA	10.00A	±(1.2%+5)	

RESISTANCE RANGE

Range	Resolution	Max. Reading	Accuracy ±(Reading+Digit)	Overload Protection
600 Ω	0.1Ω	600.0 Ω	±(0.5%+3)	230V DC/AC rms
6 KΩ	1Ω	6.000 KΩ	±(0.5%+3)	
60 KΩ	10 Ω	60.00 KΩ	±(0.5%+3)	
600 KΩ	100 Ω	600.0 KΩ	±(0.5%+3)	
6 MΩ	1 KΩ	6.000 MΩ	±(1%+5)	
60 MΩ	10 KΩ	60.00 MΩ	±(3%+5)	

Note : 1. Open Circuit Voltage on 600Ω-6MΩ ranges is 0.63V DC approx.
2. Open Circuit Voltage on 60MΩ range is 0.34V DC approx.

DIODE TEST

Range	Resolution	Open Circuit Voltage	Test Current	Overload protection
6V	1mV	≤ 2.85V DC approx	≤ 1.22mA approx	230V DC/AC rms

FREQUENCY RANGES (Auto Ranging Only)

Range	Resolution	Max. Reading	Accuracy ±(Reading+Digit)	Overload Protection
10Hz	0.001Hz	9.999Hz	±(0.1%+3)	230V DC/AC rms
100Hz	0.01Hz	99.99Hz	±(0.1%+3)	
1KHz	0.1Hz	999.9Hz	±(0.1%+3)	
10KHz	1Hz	9.999KHz	±(0.1%+3)	
100KHz	10Hz	99.99KHz	±(0.1%+3)	
1000KHz	100Hz	999.9KHz	±(0.1%+3)	
10MHz	1KHz	9.999MHz	±(0.1%+3)	

Accessories :



Test Leads | Battery | Calibration Certificate | Instruction manual | Carrying bag

AC VOLTAGE (50Hz-500Hz)only Sine Wave Average

Range	Resolution	Max. Reading	Accuracy	Overload Protection
6V	1mV	6.000V	±(1%+5)	1050V DC/AC rms
60V	10mV	60.00V	±(1%+5)	
600V	100mV	600.0V	±(1%+5)	
750V	1V	750V	±(1.2%+8)	

Note : Input impedance : 10 MΩ approx. shunted by 60pF approx.

AC CURRENT RANGE (50Hz-500Hz) Only sine wave (Average)

Range	Resolution	Max. Reading	Accuracy (Reading+digit)	Overload Protection
60mA	0.01mA	60.00mA	±(1.2%+5)	0.8A/250V DC/AC fuse protection
600mA	0.1mA	600.0mA	±(1.2%+5)	
6A	1mA	6.000A	±(1.2%+5)	10A/250V DC/AC fuse protection
10A	10mA	10.00A	±(1.5%+5)	

CAPACITANCE RANGE (Auto Ranging Only)

Range	Resolution	Max. Reading	Accuracy ±(Reading+Digit)	Overload Protection
40nF	0.01nF	39.99nF	±(3.0%+10)	230V DC/AC rms
400nF	0.1nF	399.9nF	±(3.0%+10)	
4μF	1nF	3.999μF	±(3.0%+10)	
40μF	10nF	39.99μF	±(3.0%+10)	
400μF	100nF	399.9μF	±(3.0%+10)	
4000μF	1μF	3999μF	±(5.0%+20)	

Note : Settling Time on 4000μF range is 40 sec. approx.

CONTINUITY TEST

Range	Resolution	Meter Beeps at <60 Ω approx	Overload Protection
600.0Ω	0.1Ω		230V DC/AC rms

Note: Open Circuit Voltage on continuity range is 0.63V DC approx.

DUTY CYCLE MEASUREMENT

Range	Resolution	Accuracy	Overload Protection
0.1%-99.9%	0.1%	±0.5%+3 Digit	230V DC/AC rms

Note: - Accuracy is specified at <20VAC rms.
Sensitivity : 10Hz to 100KHz > 200mV rms,
100KHz to 10MHz > 2Vrms

TEMPERATURE MEASUREMENT (K-TYPE THERMOCOUPLE *)

Range	Accuracy ±(Reading + Digit)	Overload Protection
-20°C to 1200°C	±(1% +20°C)	230V DC/AC rms

Note: - Temperature measurement in °F is proportional to °C range
*Optional