

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



EMPOWERING
MEASUREMENT

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1. The instrument is accompanied with Test & calibration sheet. 2. Test Facilities can be provided at the factory with the available test set-ups only. 3. The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4. Stated accuracies are valid from 1/10th of range to FS. 5. Accuracy Specified for temperature range of 25°C ± 3°C & 55%RH ± 10%.

NOTES