MOTWANE

EMPOWERING
MEASUREMENT

DM6K1

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Digital Multimeter DM6K1

FEATURES

- 6000 Count LCD display with pleasant blue backlit
- Auto ranging
- 15 minutes Auto power off facility provided to save battery life.
- 60 position Analog bar graph for trend indication.
- Highly linear Readings.
- Min, Max, Data and Range hold, Relative measurement facility.
- Capacitance, diode and continuity < 30Ω.
- Selectable Frequency and Duty Cycle measurement.
- Selectable Centigrade and Fahrenheit readout Temperature measurement.
- Polycarbonate, Rugged, Dust proof and fire retardant case for high temperature endurance.
- CE and EN 61010-1 CAT IV- For enhanced safety in outdoor use.

General :

Display	: 6000 Count LCD display with blue backlit.
Polarity	: Automatic
Update Rate	: 3 per second nominal
Sensing	: Average sensing calibrated for RMS
Dimensions (L x W x H)	: 94 x 36 x 205 mm. approx.
Weight	: 450 g. approx.
Standard Accessories	: Pair of leads, User Manual, Battery Installed, Carrying Bag.
Optional Accessory	: Pair of leads, K type thermocouple

Environmental :

Operating Temperature`	: 0°C to 50°C
Storage Temperature	: -20°C to 60°C
Relative Humidity	: 80% at 5°C to 31°C , 50 % at 31°C to 40°C non – condensing

Power :

Power Supply	: 1.5 V AAA size X 2
Power Consumption	: 3.2mA Typical
Low Battery Indication	: 'Lo Bat' is displayed. Below 2.4V approx.
Auto Power OFF	: 15 minutes Idle Sleep mode consumption 10 Micro amp. approx.

Over Load Protection :

Fuse protection for mA Input Terminal	: 0.8A/ 600V fast blow type ceramic fuse
Fuse Protection for 20A Input Terminal	: 20A/600V fast blow type ceramic fuse
V/Ω/C/D/Con	: 440 V DC/AC RMS

Safety :

Transient Protection	: 8 kV (1.2/50µs Surge) as per IEC 1010.1-92

Accuracy :

- Accuracy is valid from 10% of range to 95% of the range.
- Accuracy is specified as ± % of reading and is valid at 25 ± 3°C, 55% ± 10% RH.
- (It is recommended that calibration equipment used to verify the accuracy of the instrument should be 10 times more accurate.)

Technical Specification

- **DC Voltage :**

Range	Resolution	Max. Reading	Accuracy	Overload protection
600 mV	0.1 mV	599.9 mV	± (0.5%+3 digit)	1050V DC/AC RMS
6 V	1.0 mV	5.999 V	± (0.5%+3 digit)	
60 V	10 mV	59.99 V	± (0.5%+3 digit)	
600 V	100 mV	599.9 V	± (0.5%+3 digit)	
1000 V	1.0 V	1000 V	± (0.8%+3 digit)	

Input impedance: 10M ohms approx

- **AC Voltage (50Hz to 500Hz) Only Sine Wave (Average) :**

Range	Resolution	Max. Reading	Accuracy ± (Reading + Digit)	Overload protection
6 V	1 mV	5.999 V	± (1.0 %+5)	1050V DC/AC RMS
60 V	10 mV	59.99 V	± (1.0 %+5)	
600 V	100 mV	599.9 V	± (1.0 %+5)	
750 V	1 V	750 V	± (1.0 %+8)	

Input impedance: 10M ohms shunted by 30 pF approx.

- **OHMS RANGE :**

Range	Resolution	Max. Reading.	Accuracy ± (Reading + Digit)	Overload protection
600Ω	0.1Ω	599.9 Ω	±(0.5 %+3)	440V DC/AC rms
6 KΩ	1.0 Ω	5.999KΩ	± (0.5 %+3)	
60KΩ	10 Ω	59.99 KΩ	± (0.5 %+3)	
600 KΩ	100Ω	599.9 KΩ	± (0.5 %+3)	
6MΩ	1.0 KΩ	5.999 MΩ	± (1.0 %+5)	
60 MΩ	10KΩ	59.99MΩ	± (3.0 %+5)	

Note: Open Circuit voltage on all OHM ranges are 0.6V DC approx

- **DC CURRENT RANGE**

Range	Resolution	Max. Reading	Accuracy ± (Reading + Digit)	Overload protection
60 mA	0.01 mA	59.99 mA	± (1%+5)	0.8A DC/AC Fuse Protection
600 mA	0.1 mA	599.9 mA	± (1%+5)	
6 A	1mA	5.999 A	± (1%+5)	20A/600V Fuse Protection
20A	10mA	20.00 A	± (1.2%+5)	

- **AC CURRENT RANGE (50Hz to 500Hz) Only Sine Wave (Average)**

Range	Resolution	Max.Reading	Accuracy ± (Reading + Digit)	Overload protection
60 mA	0.01 mA	59.99 mA	± (1.2%+5)	0.8A DC/AC Fuse Protection
600 mA	0.1 mA	599.9 mA	± (1.2%+5)	
6 A	1 mA	5.999 A	± (1.2%+5)	20A/600V Fuse Protection
20 A	10 mA	20.00 A	± (1.5%+5)	

- **CAPACITANCE RANGES**

Range	Resolution	Max. Reading	Accuracy ± (Reading + Digit)	Overload protection
40 nF	0.01nF	39.99 nF	± (3.0%+10)	440V DC/AC RMS
400 nF	0.1 nF	399.9 nF	± (3.0%+10)	
4 µF	1 nF	3.999 µF	± (3.0%+10)	
40 µF	10 nF	39.99 µF	± (3.0%+10)	
400 µF	100 nF	399.9 µF	± (3.0%+10)	
4000 µF	1 µF	3999.9 µF	± (5.0%+10)	

- **FREQUENCY RANGES**

Range	Resolution	Max. Reading	Accuracy ± (Reading + Digit)	Overload protection
10 Hz	0.001 Hz	9.999 Hz	± (0.1%+3)	440V DC/AC RMS
100 Hz	0.01 Hz	99.99 Hz	± (0.1%+3)	
1 KHz	0.1 Hz	999.9 Hz	± (0.1%+3)	
10 KHz	1.0 Hz	9.999 KHz	± (0.1%+3)	
100 KHz	10 Hz	99.99 KHz	± (0.1%+3)	
1000 KHz	100 Hz	999.9 KHz	± (0.1%+3)	
10 MHz	1 KHz	9.999 MHZ	± (0.1%+3)	

Accuracy is specified at < 20 VAC rms
Sensitivity: 10Hz to 100 KHz > 50mVrms, 1000 KHz to 10MHz >5Vrms

- **DIODE TEST :**

Open Circuit Voltage	Test Current
≤ 2.0 VDC	0.8mA approx.

- **CONTINUITY TEST :**

RANGE:
Gives audible beep when Resistor is below 30Ω.

- **OPTIONAL :**

K- TYPE THERMOCOUPLE *

RANGE	ACCURACY
- 20°C TO 300 °C	± (2% + 3°C)
- 4°F TO 572 °F	± (2% + 6°F)

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ISO 9001 REGISTERED

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