M65 Dual display Trms Digital Multimeter with high accuracy, is specially designed in our Research Laboratory and manufactured under stringent manufacturing processes for R&D and Process industries.

M65 comes with µ Amp. range & DCV accuracy of 0.25%.

FEATURES:

- 6,000 Count LCD Dual display with white backlit.
- Auto ranging, Trms AC Voltage & Current measurement.
- Basic DCV accuracy of 0.25%.
- Highly linear readings.
- Capacitance range upto 60mF.
- Resistance, Diode and Continuity measurement facility.
- Selectable Frequency & Duty Cycle measurement.
- 60 position analog bar graph for trend indication.
- SELECT, RANGE, HOLD, REL, LIGHT, MAX/MIN functions incorporated.
- CE and IEC 61010-1 CAT III (1000V), IP 54 protection.
- Robust, Rugged and Double Mould Casing.

ACCURACY :

- Accuracy is valid from 10% of the range to 95% of the range.
- Accuracy is specified as ±(% of reading + digits) and is valid at 25 ± 3°C, ≤ 55% RH Humidity.
- It is recommended that calibration equipment used to verify the accuracy of the instrument should be 10 times more accurate.
- Temp. Coefficient = (0.1% x Specified accuracy) per degree centigrade referred to 25°C.
- Accuracy is not valid if display shows '[±]'.

GENERAL SPECIFICATION:

- Display : 6,000 Count Dual, LCD display with white backlit.
- Display Update rate : 2.8 times per second nominal.
- Dimensions (WxHxD) : 94 x 205 x 36mm approx.
- Weight : 450g. approx.
- Dual Display : For AC Voltage with Frequency & Frequency with Duty cycle simultaneously.

Environmental:

- Operating Temperature : 0°C to 50°C
- Storage Temperature : - 20°C to 60°C
- Relative Humidity : 80% RH @ 5°C to 31° C, 50% RH @ 31°C to 40°C Non- condensing.

Power:

- Power Supply : 9V Battery Type 6F22 or equivalent
- Power Consumption : 8 mA typical.
- Low Battery Indication : '[±]' < 6.5V approx.
- Auto Power OFF : After 15 Min., Ideal sleep mode consumption is 1.3mA approx. (Can be cancelled by pressing any push button except for Hold & SELECT before power on the meter).

Overload Protection:

- Fuse Protection for 'µA' & 'mA' input terminal : 0.8 A/250V fast blow type . Ceramic fuse
- Fuse Protection for 10A input terminal : 20A/ 250V fast blow type Ceramic fuse
- Ω/⊣⊢/•))) /⊣⊢/ Hz /(%) : 440 V 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(S) : EN 61010-1:2010, EN61326-1:2006
- IP Rating (Dust & Water Protection) : IP 54.

Accessory:

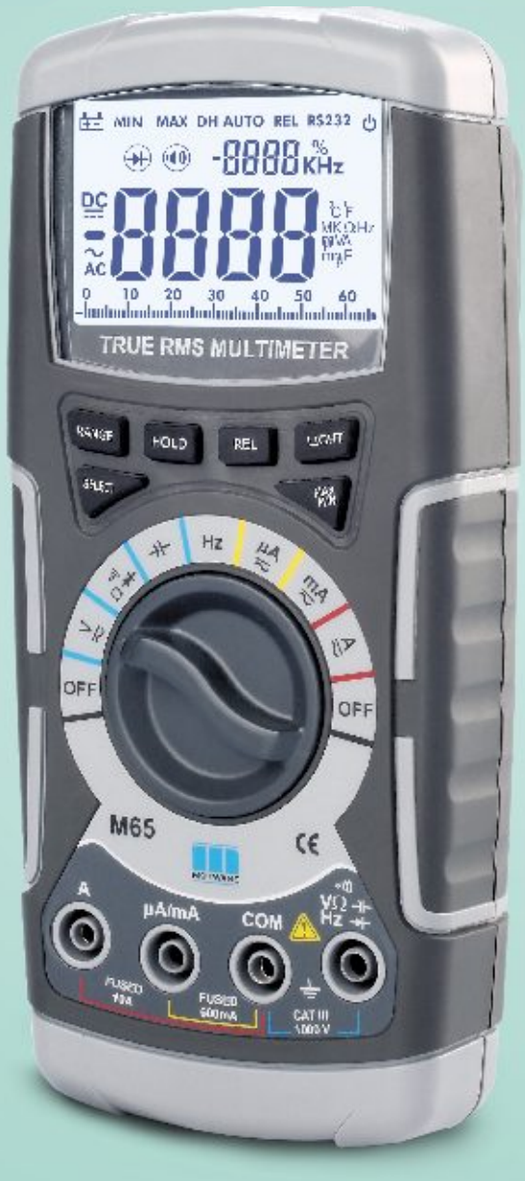
- **Standard Accessory :** Pair of Test leads, User Manual, Battery installed, Fuses, Carrying Bag.
- **Optional Accessory :** Pair of Test leads, Pair of small test leads

MOTWANE

New M65 Dual display

High Accuracy

Trms Multimeter



Accuracy
Linearity
Performance

www.motwane.com

TECHNICAL SPECIFICATION

DC VOLTAGE

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
6V	1mV	6.000V	±(0.25%+3)	1050V DC/AC rms
60V	10mV	60.00V	±(0.25%+3)	
600V	100mV	600.0V	±(0.25%+3)	
1000V	1V	1000V	±(0.5%+3)	

Note:
1. Input Impedance 10MΩ approx.
2. 600mV Range will be displayed in manual ranging only (Unspecified accuracy).

DC CURRENT RANGE

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
600μA/ 6000μA	0.1μA/ 1μA	600.0μA/ 6000μA	±(1.2%+5)	0.8A/250V DC/AC fuse protection
60mA/ 600mA	10μA/ 100μA	60.00mA/ 600.0mA	±(1.5%+5)	
10A	10mA	10.00A	±(1.5%+8)	20A/250V DC/AC fuse protection

RESISTANCE RANGE

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
600Ω	0.1Ω	600.0Ω	±(0.5%+3)	440V DC/AC rms
6KΩ	1Ω	6.000KΩ	±(0.5%+3)	
60KΩ	10Ω	60.00KΩ	±(0.5%+3)	
600KΩ	100Ω	600.0KΩ	±(0.5%+3)	
6MΩ	1KΩ	6.000MΩ	±(1%+5)	
60MΩ	10KΩ	60.00MΩ	±(3%+10)	

Note :
1.Open Circuit voltage on 600Ω range is -3.3V DC approx.
2.Open Circuit voltage on 6kΩ-6MΩ ranges is -1.10V DC approx.
3.Open Circuit Voltage on 60MΩ range is -600mV approx.

DIODE TEST

Range	Resolution	Open Circuit Voltage	Test Current
6V	1mV	≤ 3.0VDC approx	≤ 2.0mA approx

FREQUENCY RANGES

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
60Hz	0.01Hz	60.00Hz	±(0.5%+3)	440V DC/AC rms
600Hz	0.1Hz	600.0Hz	±(0.5%+3)	
6KHz	1Hz	6.000KHz	±(0.5%+3)	
60KHz	10Hz	60.00KHz	±(0.5%+3)	
600KHz	100Hz	600.0KHz	±(0.5%+3)	
6MHz	1KHz	6.000MHz	±(0.5%+3)	
60MHz	10KHz	60.00MHz	±(0.5%+3)	

Note:
1. Main display shows frequency & sub display shows Duty Cycle.
2. If input frequency is less than 6.0Hz, Display will show 0.00Hz.

AC VOLTAGE (50Hz-500Hz)Trms.

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
6V	1mV	6.000V	±(1%+5)	1050V DC/AC rms
60V	10mV	60.00V	±(1%+5)	
600V	100mV	600.0V	±(1%+5)	
1000V	1V	1000V	±(1.2%+8)	

Note :
1. Input impedance : 10 MΩ approx. shunted by 60pF approx.
2. 600mV Range will be displayed in manual ranging only (Unspecified accuracy).
3. Main display shows AC Voltage & sub display shows frequency applied.

AC CURRENT RANGE (50Hz-500Hz) Trms

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
600μA/ 6000μA	0.1μA/ 1μA	600.0μA/ 6000μA	±(1.5%+5)	0.8A/250V DC/AC fuse protection
60mA/ 600mA	10μA/ 100μA	60.00mA/ 600.0mA	±(1.8%+5)	
10A	10mA	10.00A	±(2.0%+8)	20A/250V DC/AC fuse protection

Note : Main display shows AC Current and sub display shows frequency applied.

CAPACITANCE RANGE

Range	Resolution	Max. Reading	Accuracy (rdg+digit)	Overload Protection
6nF	0.001nF	6.000nF	±(5.0%+10)	440V DC/AC rms
60nF	0.01nF	60.00nF	±(3.0%+10)	
600nF	0.1nF	600.0nF	±(3.0%+10)	
6μF	1nF	6.000μF	±(3.0%+10)	
60μF	10nF	60.00μF	±(3.0%+10)	
600μF	100nF	600.0μF	±(5.0%+10)	
6mF	1μF	6.000mF	±(5.0%+20)	
60mF	10μF	60.00mF	±(5.0%+30)	

Note :
1. Settling time on 6mF and 60mF range is 40 sec. approx.
2. Press REL button at 6nF & 60nF ranges so that the offset count can be subtracted from measurement. Now apply low value capacitance.

CONTINUITY TEST

Range	Resolution	
600.0Ω	0.1Ω	Meter Beeps at <60Ω

Note: Open Circuit Voltage on continuity range is -3.3VDC approx.

DUTY CYCLE MEASUREMENT

Range	Resolution	Accuracy (rdg+digit)	Overload Protection
1.0%-98.9%	0.1%	±(0.5%+30)	440V DC/AC rms

Accuracy is specified at <20 VAC rms

Sensitivity : 60Hz to 600 KHz > 3Vrms, 6MHz to 60MHz > 5Vrms.
1.00%-98.9% <10 kHz at 3Vrms.

Electromagnetic compatibility : In RF Field, overall accuracy is equal to 10% of reading +30 digits

NOTES
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 10% of the range to 95% of range. 5. Accuracy Specified for temperature range of 25°C ± 5°C & 55% RH ±10%.