

MARTINDALE
ELECTRIC

Specification

MM64

Digital Multimeter



ELECTRICAL

All specified accuracies are at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$, $<75\%$ RH for 1 year.

Temperature coefficient: 0.1 x (specified accuracy) per $^{\circ}\text{C}$ (0°C to 18°C , 28°C to 50°C)

DC VOLTAGE

Ranges: 200mV, 2000mV, 20V, 200V, 600V

Resolution: 200mV, 2000mV, 20V, 200V, 600V

Accuracy: $\pm (0.5\%$ of rdg + 1 dgt)

Input impedance: $10\text{M}\Omega$

Overload protection: 600V DC or AC rms
600V DC or AC rms for 15 seconds on 200 mV range

AC VOLTAGE (50Hz to 500Hz)

Ranges: 200mV, 2000mV, 20V, 200V, 600V

Resolution: 0.1mV, 0.001V, 0.01V, 0.1V, 1V

Accuracy: 200mV to 20V ranges $\pm (1.2\%$ of rdg + 4 dgts)

200V to 600V range $\pm (2.0\%$ of rdg + 4 dgts)

Input impedance: $10\text{M}\Omega$

Overload protection: 600V DC or AC rms. 600V DC or AC rms for 15 seconds on 200mV range

DC CURRENT

Ranges: 200 μA , 20mA, 200mA

Resolution: 0.1 μA , 0.01mA, 0.1mA

Accuracy: $\pm (1.0\%$ of rdg + 1 dgt)

Input protection: 0.25A/500V fast blow ceramic fuse



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AC CURRENT (50Hz to 500 Hz)

Ranges: 200 μ A, 20mA, 200mA

Resolution: 0.1 μ A, 0.01mA, 0.1mA

Accuracy: \pm (1.5% of rdg + 4 dgts)

Input protection: 0.25A/500V fast blow ceramic fuse

RESISTANCE

Ranges: 200 Ω , 2k Ω , 200k Ω , 20M Ω

Resolution: 0.1 Ω , 0.001k Ω , 0.1k Ω , 0.01M Ω

Accuracy: 200 Ω to 200k Ω ranges \pm (1.0% of rdg + 4 dgts)

20M Ω range \pm (2.0% of rdg + 4 dgts)

Open circuit voltage: 0.3V DC (3.0V DC on 200 Ω range)

Overload protection: 500V DC or AC rms

CAPACITANCE

Ranges: 200 μ F, 2mF, 20mF

Resolution: 0.1 μ F, 0.001mF, 0.01mF

Accuracy: \pm (4.0% of rdg + 10 dgts)

Test frequency: 21Hz

Test voltage: < 3.0V

Input protection: 0.25A/500V fast blow ceramic fuse

FREQUENCY (Autoranging)

Ranges: 2kHz, 20kHz, 40kHz

Resolution: 0.001kHz, 0.01 kHz, 0.1kHz

Accuracy: \pm (0.1% of rdg + 3 dgts)

Minimum input: 10Hz

Input sensitivity: 3.5V rms minimum

Overload protection: 500V DC or AC rms



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TEMPERATURE

Sensor type: type K thermocouple

Range	Resolution	Accuracy
200 °C	0.1 °C	-35 °C to 0 °C ± (3.0 % rdg + 3 °C) 0 °C to 200 °C ± (1.0 % rdg + 1 °C)
750 °C	1 °C	200 °C to 750 °C ± (3.0 % rdg + 3 °C)
200 °F	0.1 °F	-30 °F to 32 °F ± (3.0 % rdg + 6 °F) 32 ° to 400 °F ± (1.0 % rdg + 2 °F)
1400 °F	1 °F	400 °F to 1400 °F ± (3.0 % rdg + 6 °F)

Overload protection: 60V DC or 30V AC rms

CONTINUITY

Audible indication: less than 100Ω

Response time: 100ms

Overload protection: 500V DC or AC rms

DIODE TEST

Test current: 1.0mA approx

Accuracy: ± (1.5% rdg + 3 dgts)

Open circuit voltage: 3.0V DC typical

Overload protection: 500V DC or AC rms



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GENERAL

Display: 3½ digit liquid crystal display with a maximum reading of 1999

Polarity: automatic, positive implied, negative polarity indication

Overrange: (OL) or (-OL) is displayed

Zero: Automatic

Low battery indication:  symbol is displayed when the battery voltage drops below the operating level

Measurement rate: 2.5 times per second, nominal

Auto power off: after approx 25 minutes

Operating environment: 0°C to 50°C at < 70% RH

Storage temperature: -20°C to 60°C at < 80% RH

Altitude: Up to 2000m

Power: Single standard 9 volt battery, NEDA 1604, JIS006P, IEC 6F22

Battery life: 150 hours typical with carbon-zinc

Dimensions: 165mm (H) x 78mm (W) x 42.5mm (D)

Weight: Approx. 285g

Includes: TL16 test leads, Type K thermocouple, 1 x spare fuse, 9V battery (installed) and instructions

SAFETY

Conforms to BS EN 61010-1, CAT III 600 V

Class II Double Insulation

Pollution degree: 2 for indoor use

TL16 test leads conform to BS EN 61010-031 CAT III 1000V, CAT IV 600V, 10A

EMC: Conforms to BS EN 61326-1