

TECHNICAL DATA



True RMS multimeter measures AC/DC voltage, current, frequency, resistance, capacitance, and temperature, and features a built-in non-contact voltage detector.

Features

- Measures AC/DC voltage and current, frequency, resistance, capacitance and temperature
- Built-in non-contact voltage detector and rugged double molded plastic housing
- Diode check and continuity functions
- Relative and data hold functions
- Backlit LCD and low battery indicator
- Cat. CAT III. 600V safety rating
- Includes test leads, thermocouple wire probe (type K) and batteries

Applications

- Troubleshooting electrical systems in residential, commercial, and industrial settings
- Performing routine maintenance checks on electrical equipment
- Testing and diagnosing issues in various types of machinery and appliances
- Verifying electrical connections and installations for safety compliance
- Conducting repairs and maintenance on HVAC and automotive systems
- Supporting educational and laboratory environments for electronics training and experiments
- Assisting in general DIY electrical projects and repairs around the home

Specifications

AC/DC Voltage

Range: AC/DC: 9.999mV, 99.99mV, 999.9mV, 9.999V, 99.99V, 999.9V

Accuracy: AC: 9.999mV, 99.99mV $\pm(1\% \text{ rdg.} + 3\text{dgt.})$
999.9mV, 9.999V, 99.99V, 999.9V $\pm(0.8\% \text{ rdg.} + 3\text{dgt.})$

DC: 9.999mV, 99.99mV $\pm(0.7\% \text{ rdg.} + 8\text{dgt.})$

999.9mV, 9.999V, 99.99V, 999.9V $\pm(0.5\% \text{ rdg.} + 3\text{dgt.})$

Resolution: AC/DC: 0.001mV, 0.01mV, 0.1mV, 0.001V, 0.01V, 0.1V

AC/DC Current

Range: AC/DC: 999.9μA, 999.9mA, 9.999A

AC: 999.9μA $\pm(1.0\% \text{ rdg.} + 3\text{dgt.})$

999.9mA, 9.999A $\pm(1.2\% \text{ rdg.} + 3\text{dgt.})$

DC: 999.9μA $\pm(0.8\% \text{ rdg.} + 3\text{dgt.})$

999.9mA, 9.999A $\pm(1.0\% \text{ rdg.} + 3\text{dgt.})$

Resolution: AC/DC: 0.1μA, 0.1mA, 0.001A
Length Range: 0-99,999 m/in/ft

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Resistance

Range:	999.9Ω, 9.999kΩ, 99.99kΩ, 999.9kΩ, 9.999MΩ, 99.99MΩ
Accuracy:	999.9Ω, 9.999kΩ, 99.99kΩ, 99.9kΩ: $\pm(0.8\% \text{ rdg.} + 2\text{dgt.})$ 9.999MΩ: $\pm(1.5\% \text{ rdg.} + 3\text{dgt.})$ 99.99MΩ: $\pm(2.0\% \text{ rdg.} + 5\text{dgt.})$
Resolution:	0.1Ω, 0.001kΩ, 0.01kΩ, 0.1kΩ, 0.001MΩ, 0.01MΩ

Capacitance

Range:	9.999nF, 99.99nF, 999.9nF, 9.999μF, 99.99μF, 999.9μF, 9.999mF
Accuracy:	9.999nF: $\pm(4\% + 10\text{dgt.})$ 99.99nF, 999.9nF, 9.999μF: 99.99μF, 999.9μF: $\pm(4.0\% \text{ rdg.} + 5\text{dgt.})$ 9.999mF: $\pm(10\% \text{ rdg.})$
Resolution:	0.001nF, 0.01nF, 0.1nF, 0.001μF, 0.01μF, 0.1μF, 0.001mF

Frequency

Range:	99.99Hz to 9.999MHz
Accuracy:	$\pm(0.1\% \text{ rdg.} + 5\text{dgt.})$
Resolution:	0.01Hz to 0.001MHz

Temperature

Range:	-40 to 1832°F (-40 to 1000°C)
Accuracy:	$\pm(2.5\% \text{ rdg.} + 5°F)$ $\pm(2.0\% \text{ rdg.} + 5°C)$
Resolution:	1°F, 1°C

General Specifications

Range Selection:	Autoranging
True RMS:	Yes
Display:	9,999 count LCD Display
Display Hold:	Yes
Relative Mode:	Yes
Diode Test:	Yes
Backlit Display:	Yes
Continuity Check:	Audible signal if resistance $\leq 30\Omega$
Duty Cycle:	Yes (0.1 - 99.9%)
Non-Contact Voltage Detector:	Yes

Magnetic Hanging

Strap Compatible:	Yes (R5900 sold separately)
Kick Stand:	Yes
Auto Power Off:	Yes (after 15 minutes)
Power Supply:	3x AA Batteries
Low Battery Indicator:	Yes
Fuse Protection:	Yes
Replaceable Test Leads:	Yes
Oversupply Category:	CAT. III 600V
Product Certifications:	CE, UKCA, ETL
Operating Temperature:	32 to 104°F (0 to 40°C)
Storage Temperature:	14 to 122°F (-10 to 50°C)
Dimensions:	7.4 x 3.5 x 2.2" (187 x 88 x 56mm)
Weight:	14oz (400g)

Model	Description
R5077	True RMS Digital Multimeter, AC/DC 1000V
R5400	Line Splitter
R5900	Magnetic Meter Strap
R2990	Thermocouple Adapter
R2920	Surface Thermocouple Probe
R2930	Right Angle Thermocouple Surface Probe
R2940	Air/Gas Thermocouple Probe
R2950	Immersion Thermocouple Probe
R2960	Needle Tip Thermocouple Probe
R1020	Fused Test Lead Set
R5077-NIST	True RMS Digital Multimeter, AC/DC 1000V & NIST