

Electrical Test & Measurement

Digital Multimeters



Includes:

- Test leads with CAT III/CAT IV safety caps
- Thermocouple with adapter (temperature-measuring models only)
- Batteries



- CAT III 600V safety rating
- Built to withstand a 3.3 ft. (1 m) drop
- For use in basic and controlled electromagnetic environments like residential, business and light-industrial locations
- Low battery indicator and easily accessible battery compartment
- The MM300 is a manual-ranging digital multimeter that measures AC/DC voltage, DC current, and resistance. It also tests diodes and continuity, and has a battery test mode
- The MM400 is an auto-ranging digital multimeter that measures AC/DC voltage, AC/DC current, and resistance. It also measures temperature, capacitance, frequency, duty-cycle, and tests diodes and continuity



| eatures | MM300 Manual Ranging | MM400 Auto Ranging |
|---------------------------|---------------------------|-------------------------------|
| Drop Protection | 3.3 ft. (1 m) | 3.3 ft. (1 m) |
| Ingress Protection | — | - |
| Safety | CAT III 600V | CAT III 600V |
| AC Voltage (Volts) | 600V | 600V |
| DC Voltage (Volts) | 600V | 600V |
| AC Current (Amps) | - | 10A |
| DC Current (Amps) | 10A | 10A |
| Ohms (Resistance) | 20ΜΩ | 40ΜΩ |
| DC Millivolts | • | • |
| AC Milliamps | _ | • |
| DC Milliamps | • | • |
| AC Microamps | _ | • |
| A DC Microamps | • | ٠ |
| MS True RMS | _ | _ |
|) Audible Continuity | • | ٠ |
| Backlight | _ | ٠ |
| °C Temperature | _ | 0° – 1000°F (-18° – 538°C) |
| Z Low Impedance | _ | _ |
| TO Auto Ranging | _ | ٠ |
| Ke Range Hold | _ | • |
| LD Data Hold | • | • |
| ► Diode Test | • | • |
| Capacitance Test | _ | 200 µF |
| z% Frequency / Duty Cycle | _ | 1Hz – 50 KHz |
| Max / Min | _ | ٠ |
| Rd Lead Warning | — | _ |
| III Bar Graph | _ | _ |
| Magnetic Mount | Available As Accessory | Available As Accessory |
| PO Auto-Power Off | _ | • |
| Battery Test | • | _ |
| LCD Display Count | 2000 | 4000 |

Specifications are subject to change. See page 295 for additional information on warnings.





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See warning section on page 197 for important safety information regarding multimeters



Multimeters

Multimeter Specifications

| Cat. No. | Batteries | Standard | Included | Overall Length | Overall Height | Overall Width | Weight |
|----------|-----------|--------------|---|----------------|--------------------|--------------------|-------------------|
| MM300 | 2 x AAA | CAT III 600V | Test Leads and Batteries | 6" (152.4 mm) | 1-25/32" (45.2 mm) | 3-1/6" (77.8 mm) | 0.51 lb (0.23 kg) |
| MM400 | 2 x AAA | CAT III 600V | Test Leads, Batteries and Thermocouple | 6" (152.4 mm) | 1-25/32" (45.2 mm) | 3-1/6" (77.8 mm) | 0.51 lb (0.23 kg) |
| MM600 | 2 x AAA | CAT IV 600V | Carrying Case, Test Leads, Thermocouple, and Batteries | 7" (177.8 mm) | 2-3/32" (53.2 mm) | 3-35/64" (90.1 mm) | 0.90 lb (0.41 kg) |
| MM700 | 2 x AAA | CAT IV 600V | Carrying Case, Test Leads, Thermocouple, Batteries, and Alligator Clips | 7" (177.8 mm) | 2-3/32" (53.2 mm) | 3-35/64" (90.1 mm) | 0.90 lb (0.41 kg) |

Multimeter Replacement Fuses





69192

| Cat. No. | For Use With | Fuse Type |
|----------|--|------------------------|
| 69191 | MM1000, MM1300, MM2000, MM2300, MM6000 | F 11A/1000V |
| 69192 | MM1000, MM1300, MM2000, MM2300, MM6000 | F 440mA/1000V |
| 69193 | MM100 Fuse Kit | F10A/500V, F250mA/250V |
| 69194 | MM200 Fuse Kit | F10A/500V, F400mA/250V |
| 69031 | MM300 | 5x20 200MA 600V |
| 69032 | MM300, MM400 | 6x32 10A 600V |
| 69033 | MM400 | 5x20 500MA 600V |
| 69034 | MM600, MM700 | 10x38 10A 1000V |
| 69035 | MM600, MM700 | 6x32 500MA 1000V |

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Electrical Test Kit

- The MM300 multimeter was developed to withstand daily wear and tear on the job site, and has a safey rating of CAT III 600V, Class 2, Double insulation
- The NCVT-1 has a bright green LED to indicate the tester is working; it ٠ changes to red and warning tones sound when voltage is detected
- NCVT-1 has a digitally-controlled ON/OFF power button and auto power-off feature to conserve and extend battery life
- Receptacle tester detects wiring configurations and indicates correct wiring, open ground, open hot, open neutral, hot/ground reversed; it does not indicate quality of ground, multiple hot wires, or a combination of defects
- Includes visual and audible continuity indicators up to 25Ω
- Includes test leads and batteries

| t. No. | Set Contains | | | | | Weight |
|--------|-------------------|-----------------------|-----------------------|------------------|------------------|----------------------|
| 149 | | | | | | 0.94 lb (0.43 kg) |
| | Cat. No. | Overall Length | Overall Height | Overall Width | Batteries | |
| | MM300 | 6" (152.4 mm) | 1-25/32" (45.2 mm) | 3-1/6" (77.8 mm) | 2 x AAA | |
| | NCVT-1 | 5-1/2" (139.7 mm) | 1" (25.4 mm) | 23/32"(18.3 mm) | 2 x AAA | |
| | Receptical Tester | 2-3/4" (69.9 mm) | 1" (25.4 mm) | 1-1/2" (38.1 mm) | — | |
| | | | | | | |



AWARNINGS:

Cat

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To ensure safe operation and service of the tester, follow these instructions. Failure to observe these warnings can result in severe injury or death.

- · Before each use, verify meter operation by measuring a known voltage or current.
- · Never use the meter on a circuit with voltages that exceed the category based rating of this meter.
- · Do not use the meter during electrical storms or in wet weather.
- · Do not use the meter or test leads if they appear to be damaged.
- · Ensure meter leads are fully seated, and keep fingers away from the metal probe contacts when making measurements.
- · Do not open the meter to replace batteries while the probes are connected.
- · Use caution when working with voltages above 60V DC, or 25V AC RMS. Such voltages pose a shock hazard.
- · To avoid false readings that can lead to electrical shock, replace batteries if a low battery indicator appears.
- · Unless measuring voltage or current, shut off and lock out power before measuring resistance or capacitance.
- · Always adhere to local and national safety codes. Use individual protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.

See page 295 for additional information on warnings.

