

## **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.	<b>Overall Length</b>	<b>Overall Height</b>	Overall Width	<b>Batteries</b>	
	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.

