



# AM-250 Professional Electrical Multimeter

A professional multimeter for Electrical and HVAC applications. Safety rated to CAT III 600V and CAT II 1000V for indoor applications requiring direct connection to main panel of the building. The AM-250 measures complete range of electrical parameters including voltage, current, resistance and frequency. It also covers HVAC application with temperature, capacitance and micro amps functions.

- 13 Features
- Measures AC/DC voltage up to 1000V, Current, Resistance, Frequency, Capacitance and Temperature
- Audible continuity
- Diode Test
- Auto and manual ranging
- Relative zero mode
- Data hold
- Peak hold (30ms response time)
- Backlight display
- Large, easy to read LCD display
- BEEP-JACK audible warning against improper connection
- Auto power off
- Safety CAT III 600V

## No hassle warranty

*No waiting.*

*No shipping  
charges.*



Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that an Amprobe Test Tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

(note: \$500 MSLP limit)

## AM-250 Professional Electrical Multimeter

## Data Sheet

### Specifications

<b>General Specifications Display</b>	3-3/4 digits 4000 counts LCD display
<b>Polarity</b>	Automatic
<b>Update Rate</b>	3 per second nominal
<b>Operating Temperature</b>	0°C to 40°C (32°F to 104°F)
<b>Relative Humidity</b>	Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C
<b>Altitude</b>	Operating below 2000m
<b>Storage Temperature</b>	-20°C ~ 60°C (-4°F to 140°F), < 80% R.H. (with battery removed)
<b>Temperature Coefficient</b>	nominal 0.15 x (specified accuracy)/°C @ (0°C - 18°C or 28°C - 40°C), or otherwise specified
<b>Sensing</b>	Average sensing
<b>Pollution Degree</b>	2
<b>Safety</b>	The meter (all versions) is protected, against the users, by double insulation per UL3111-1 (1st Edition), IEC61010-1 (1st Edition) + A1 and A2, CAN/CSA - C22.2 No. 1010.1 - 92 to CAT II 1000V & CAT III 600V. <b>Protection-reinforced CE Terminals (to COM) ratings:</b> V: Category II 1000 Volts AC & DC, and Category III 600 Volts AC & DC. A / mA: Category III 500 Volts AC and 300 Volts DC.
<b>Overload Protections</b>	
<b>Protection-reinforced CE</b>	<b>µA &amp; mA:</b> 0.63A/500V, IR200kA, F Fuse; <b>A:</b> 12.5A/500V, IR20kA, F Fuse; <b>V:</b> 1050Vrms, 1450Vpeak; <b>Ω &amp; Others:</b> 600VDC/VAC rms
<b>E.M.C.</b>	Meets EN61326(1997, 1998/A1), EN61000-4-2(1995), and EN61000-4-3(1996)
<b>In an RF field of 3V/m</b>	Capacitance function is not specified AC 4.000V range: Total Accuracy = Specified Accuracy + 700 digits AC 400.0µA range: Total Accuracy = Specified Accuracy + 300 digits Other function ranges: Total Accuracy = Specified Accuracy + 40 digits Performance above 3V/m is not specified
<b>Transient protection</b>	6.5kV (1.2/50µs surge)
<b>Power Supply</b>	1.5V AAA Size (NEDA 24A or IEC LR03) battery X 2
<b>Power Consumption</b>	3.2 mA
<b>typical Low Battery</b>	Below approx. 2.4V
<b>Sleep Mode Timing</b>	Idle for 30 minutes
<b>Sleep Mode Consumption</b>	360µA
<b>Dimension</b>	193(L) x 97(W) x 46(H)mm (7.6 X 3.8 X 1.8 in)
<b>Weight</b>	Approx. 370 gm / 0.815 lb
<b>Special Features</b>	25ms Max Hold; Data Hold; Relative zero mode; Beep-jack™ input warning; Back-lighted display

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### Electrical Specification

Accuracy is  $\pm$ (% reading digits + number of digits) or otherwise specified, at 23 °C  $\pm$ 5 °C & less than 75% R.H.

	Range	Accuracy
	400.0 mV	0.3% + 4d
	4.000V, 40.00V, 400.0V	0.5% + 3d
	1000V	1.0% + 4d

DC Voltage	Range	Accuracy
50Hz -- 500Hz	400.0mV*	4.0% + 5d
	4.000V, 40.00V, 400.0V	1.5% + 5d
	1000V	4.0% + 5d

AC Voltage	Range	Accuracy*
	-20 °C TO 300 °C	2% + 3 °C
	-4 °F TO 572 °F	2% + 6 °F

**NMRR:** >50dB @ 50/60Hz  
**CMRR:** >120dB @ DC, 50/60Hz,  $R_s=1k\Omega$   
**CMRR:** >60dB @ DC to 60Hz,  $R_s=1k\Omega$   
**Input Impedance:** 10M $\Omega$ , 30pF nominal (1000M $\Omega$  for 400.0mV range)  
 \*Selection by RANGE button manually,  
 Type-K Temperature is specified from  
 \*Type-K thermocouple range & accuracy  
 Specified accuracy  $\pm$  50 digits for changes > 25ms in duration

DC Current	Range*	Accuracy**
Capacitance	500.0nF, 5.000 $\mu$ F, 50.00 $\mu$ F, 500.0 $\mu$ F, 3000 $\mu$ F	3.5%*** + 6d

Voltage	Range	Accuracy	Burden
	400.0 $\mu$ A	2.0% + 5d	0.15mV/ $\mu$ A
	4000 $\mu$ A	1.2% + 3d	0.15mV/ $\mu$ A
	40.00mA	2.0% + 5d	3.3mV/mA
	400.0mA	1.2% + 3d	3.3mV/mA
	4.000A	2.0% + 5d	0.03V/A
	10.00A*	1.2% + 3d	0.03V/A
	*10A continuous, 20A for 30 second max with 5 minutes cool down interval		

AC Current	Range	Accuracy	Burden
50Hz -- 500Hz	400.0 $\mu$ A	2.0% + 5d	0.15mV/ $\mu$ A
	4000 $\mu$ A	1.2% + 3d	0.15mV/ $\mu$ A
	40.00mA	2.0% + 5d	3.3mV/mA
	400.0mA	1.2% + 3d	3.3mV/mA
	4.000A	2.0% + 5d	0.03V/A
	10.00A*	1.2% + 3d	0.03V/A
	*10A continuous, 20A for 30 second max with 5 minutes cool down interval		

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<b>Ohms</b>	<b>Range</b>	<b>Accuracy</b>
	400.0Ω	0.8% + 6d
	4.000kΩ, 40.00kΩ, 400.0kΩ	0.6% + 4d
	4.000MΩ	1.0% + 4d
	40.00MΩ	2.0% + 4d
<b>Open Circuit Voltage</b>	0.4VDC typical	
<b>Audible Continuity</b>	Tester	
<b>Audible Threshold</b>	between 10Ω and 120Ω	
	*Additional 50.00nF range accuracy is not specified	
	**Accuracies with film capacitor or better	
	***Specified with battery voltage above 2.8V (approximately half full battery).	
	Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V	
<b>Hz Frequency</b>	<b>Range*</b>	<b>Accuracy**</b>
	50.00Hz, 500.0Hz,	0.5%+4d
	5.000kHz,	
	50.00kHz,	
	500.0kHz,	
	1.000MHz	
	*Additional 5.000Hz range accuracy & sensitivity are not specified	
	**Accuracy is specified at < 20VAC rms Input Signal: Square wave with duty cycle > 40% & < 70%; or Sine wave Vrms AC Sensitivity: 10Hz--20Hz : > Sine 0.9Vrms; 20Hz--500kHz: > 2.6Vp; or Sine 1.9Vrms; 500kHz--1MHz: > 4.2Vp; or Sine 3Vrms Update Rate: 2 per second nominal	
<b>Diode Tester</b>	<b>Open Circuit Voltage</b>	<b>Test Current (Typical)</b>
	< 1.6 VDC	0.25mA
<b>Included Accessories</b>	Test leads (pair), Banana plug K-type thermocouple, batteries installed, user's manual	

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