



# AM-520 HVAC Digital Multimeter

## AM-500 Digital Multimeter Series

Designed for the HVAC professional, the AM-520 HVAC Digital Multimeter is complete with key functions such as temperature, micro amps used for flame sensor troubleshooting and capacitance to check motor start-up capacitors. The AM-520 measures a complete range of electrical parameters and features a built-in flashlight, a "third hand" probe holder and VoltTect™ non-contact voltage detection.









- Measurements: voltage up to 750Vac and 1000Vdc, ac/dc current, resistance, frequency, capacitance, temperature.
- VoltTect™ Non-contact voltage detection
- Built-In test leads storage and "third hand holder"
- Audible continuity
- Diode test
- Data hold
- Max/min memory
- Relative zero mode
- Built-In flashlight
- Auto and manual ranging
- Auto power off and low battery warning
- Backlit LCD display with analog bar graph
- Vekro strap to hang a meter
- Safety rated: CAT III 600V, CAT II 1000V

## AM-520 DETAILED SPECIFICATIONS

Specifications	Range	Best Accuracy
AC Voltage	400 mV 4.000 / 40.00 / 400.0 / 750 V	±(1.0% Rdg + 3 LSD) @ 45 Hz to 400 Hz, 4 V to 400 V ranges
DC Voltage	400 mV 4.000 / 40.00 / 400.0 / 1000 V	±(0.8% Rdg + 1 LSD) @ 4 V to 400 V ranges
Resistance	400.0 Ohms 4.000 / 40.00 / 400.0 kOhms 4.000 / 40.00 MOhms	±(1.0% Rdg + 2 LSD) @ 4 kOhms to 400 kOhms ranges
AC Current	400.0 / 4000 µA 40.00 / 400.0 mA 4.000 / 10.00 A	±(1.2% Rdg + 3 LSD)
DC Current	400.0 / 4000 µA 40.00 / 400.0 mA 4.000 / 10.00 A	±(1.0% Rdg + 2 LSD)
Frequency	10 Hz to 10 MHz	±(0.1% Rdg + 4 LSD)
Capacitance	40.00 / 400.0 nF 4.000 / 40.00 / 400.0 / 4000 µF	±(3.0% Rdg + 5 LSD) @ 400 nF to 40 µF ranges
Temperature	-40 °F to 1832 °F -40 °C to 1000 °C	°F: ±(1.8% rdg + 6 °F) @ >32 °F to 212 °F °C: ±(1.2% rdg + 3 °C) @ ≥0 °C to 100 °C
Number of temperature inputs	Single Thermocouple	

For more detailed specifications see instruction manual.

## AM-500 SERIES SELECTION GUIDE

		AM-500	AM-510	AM-520	AM-530	AM-540	AM-550		
MULTIMETER TYPE		Autoranging	Com / Res	HVAC	Electrical	Adv. HVAC	Industrial		
<b>Application:</b>									
<b>Functions</b>	Safety Rating	<b>Safety</b>		CAT III 600V	CAT III 600V	CAT III 600V CAT II 1000V	CAT III 600V CAT II 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V
	Measure voltage in noisy environments	<b>True-rms</b>					■		■
	Electrical panels, AC outlets	<b>AC Voltage (V)</b>		600	600	750	750	1000	1000
	DC systems, auto/marine batteries	<b>DC Voltage (V)</b>		600	600	1000	1000	1000	1000
	AC Current - electrical panels, appliances	<b>AC Current (A)</b>		10	10	10	10	10	10
	DC Current - electronics, DC motors	<b>DC Current (A)</b>		10	10	10	10	10	10
	Specified resistance and continuity	<b>Resistance (MOhms)</b>		20	40	40	40	60	60
	Flame sensors	<b>Micro Amps</b>		■	■	■	■	■	■
	Diodes in ac to dc converters	<b>Diode test</b>		■	■	■	■	■	■
	Fuses, light bulbs, wire connections	<b>Continuity</b>		■	■	■	■	■	■
	Household batteries	<b>Battery test</b>		■	■				
	Motor startup or run capacitors	<b>Capacitance</b>			■	■	■	■	■
	Frequency verification	<b>Frequency</b>			■	■	■	■	■
	Voltect™ Non-contact voltage detection	<b>Non-contact voltage</b>			■	■	■	■	■
Electrical load-time on vs. time off	<b>Duty cycle</b>			■			■	■	
Temp of air vents, fuses, transformers	<b>Temperature Inputs</b>				1	1	2	2	
<b>Features</b>	Automatically selects measurement range	<b>Autoranging</b>		■	■	■	■	■	■
	Manually select measurement range	<b>Manual ranging</b>			■	■	■	■	■
	Voltage on variable frequency drives	<b>Low pass filter</b>					■	■	■
	Detect stray voltages	<b>Low Z</b>							■
	Dimly lit areas	<b>Built-in flashlight</b>			■	■	■	■	■
<b>Display</b>	Meter resolution	<b>LCD Counts</b>		2,000	4,000	4,000	4,000	6,000	6,000
	Dimly lit areas	<b>Backlight</b>			■	■	■	■	■
	Monitoring fast changing signals	<b>Bar graph</b>				■	■	■	■
	Two relative measurements on one screen	<b>Dual display</b>						■	■
<b>Events</b>	Data memory	<b>Data hold</b>		■	■	■	■	■	■
	Difference between two measurements	<b>Relative reading</b>			■	■	■	■	■
	Max/min peak measurement	<b>Max/min hold</b>				■	■	■	■
	Specialized signal measurements	<b>Peak hold (crest)</b>						■	■

## INCLUDED ACCESSORIES

Model	Batteries (Installed)	Test Leads	Temperature Probe	Temperature Adaptor	Velcro Strap	Carrying Case	User's Manual
AM-500	AAA x2	■					■
AM-510	9V (6F22) x1	■					■
AM-520	9V (6F22) x1	■	K-type probe x1		■	■	■
AM-530	9V (6F22) x1	■	K-type probe x1		■	■	■
AM-540	9V (6F22) x1	■	K-type probe x2	■	■	■	■
AM-550	9V (6F22) x1	■	K-type probe x2	■	■	■	■