



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 VolTect™ non-contact voltage detection.

- Measurements: voltage up to 600Vac and 600Vdc, ac/dc current, resistance, frequency, capacitance, temperature.
- VolTect™ 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
- Velcro strap to hang a meter
- Safety rated: CAT III 600V









AM-520 DETAILED SPECIFICATIONS

| Specifications | Range | Best Accuracy |
|------------------------------|--|---|
| AC Voltage | 400 mV 4.000 / 40.00 / 400.0 / 600 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 / 600 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) @ 400 µA to 400 mA ranges, 45 Hz to 400 Hz |
| DC Current | 400.0 / 4000 µA 40.00 / 400.0 mA 4.000 / 10.00 A | ±(1.0% Rdg + 2 LSD) @ 400 µA to 400 mA ranges |
| 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 | |
| Application: | |  |  |  |  |  |  | |
| Functions | Safety Rating | Safety | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT IV 600V CAT III 1000V | |
| | Measure voltage in noisy environments | True-rms | | | | ■ | ■ | |
| | Electrical panels, AC outlets | AC Voltage (V) | 600 | 600 | 600 | 600 | 1000 | 1000 |
| | DC systems, auto/marine batteries | DC Voltage (V) | 600 | 600 | 600 | 600 | 1000 | 1000 |
| | AC Current - electrical panels, appliances | AC Current (A) | 10 | 10 | 10 | 10 | 10 | 10 |
| | DC Current - electronics, DC motors | DC Current (A) | 10 | 10 | 10 | 10 | 10 | 10 |
| | Specified resistance and continuity | Resistance (MOhms) | 20 | 40 | 40 | 40 | 60 | 60 |
| | Flame sensors | Micro Amps | ■ | ■ | ■ | ■ | ■ | ■ |
| | Diodes in ac to dc converters | Diode test | ■ | ■ | ■ | ■ | ■ | ■ |
| | Fuses, light bulbs, wire connections | Continuity | ■ | ■ | ■ | ■ | ■ | ■ |
| | Household batteries | Battery test | ■ | ■ | | | | |
| | Motor startup or run capacitors | Capacitance | | ■ | ■ | ■ | ■ | ■ |
| | Frequency verification | Frequency | | ■ | ■ | ■ | ■ | ■ |
| | VolTect™ Non-contact voltage detection | Non-contact voltage | | ■ | ■ | ■ | ■ | ■ |
| | Electrical load-time on vs. time off | Duty cycle | | ■ | | | ■ | ■ |
| Temp of air vents, fuses, transformers | Temperature inputs | | | 1 | 1 | 2 | 2 | |
| Features | Automatically selects measurement range | Autoranging | ■ | ■ | ■ | ■ | ■ | |
| | Manually select measurement range | Manual ranging | | ■ | ■ | ■ | ■ | |
| | Voltage on variable frequency drives | Low pass filter | | | | | ■ | |
| | Detect stray voltages | Low Z | | | | | ■ | |
| | Dimly lit areas | Built-in flashlight | | ■ | ■ | ■ | ■ | |
| Display | Meter resolution | LCD Counts | 2,000 | 4,000 | 4,000 | 4,000 | 6,000 | |
| | Dimly lit areas | Backlight | | ■ | ■ | ■ | ■ | |
| | Monitoring fast changing signals | Bar graph | | | ■ | ■ | ■ | |
| | Two relative measurements on one screen | Dual display | | | | | ■ | |
| Events | Data memory | Data hold | ■ | ■ | ■ | ■ | ■ | |
| | Difference between two measurements | Relative reading | | ■ | ■ | ■ | ■ | |
| | Max/min peak measurement | Max/min hold | | | ■ | ■ | ■ | |
| | Specialized signal measurements | Peak hold (crest) | | | | | ■ | |

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 | ■ | ■ | ■ | ■ |