

AC/DC Current Probe Model MR520



The AEMC® MR Series AC/DC Probes are professional AC/DC current probes designed to extend current measuring capabilities of DMMs, oscilloscopes and other instruments. They are built to the latest safety and performance standards, including the CE Mark and UL approval. Two different hook-shaped jaws are offered, both permitting the user to “pry” or “hook” onto cables (will accept 2 x 500MCM) or even onto small bus bars.

The MR Series probes use Hall effect technology and measure AC and DC current. The electronics and batteries are self-contained in the handles. The output of the AC/DC probes is 1mV/A and 10mV/A. The Model MR520 measures to 1000AAC/1500AAC.

There is no output filtering — True RMS with DC component measurements are possible. Phase shift is excellent, making the MR Series of current probes well suited for power and power quality applications.

Features

- Measurement range of 400AAC/600ADc
- Measurement range of 1000AAC/1500ADc
- Distinct jaw shapes to be used for hooking or prying around the conductor
- Auto-zero push button
- Conforms to EN 61010, 600V, Cat. III safety standard
- Low phase shift for power measurements

- mV output signals
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters
- CE Mark

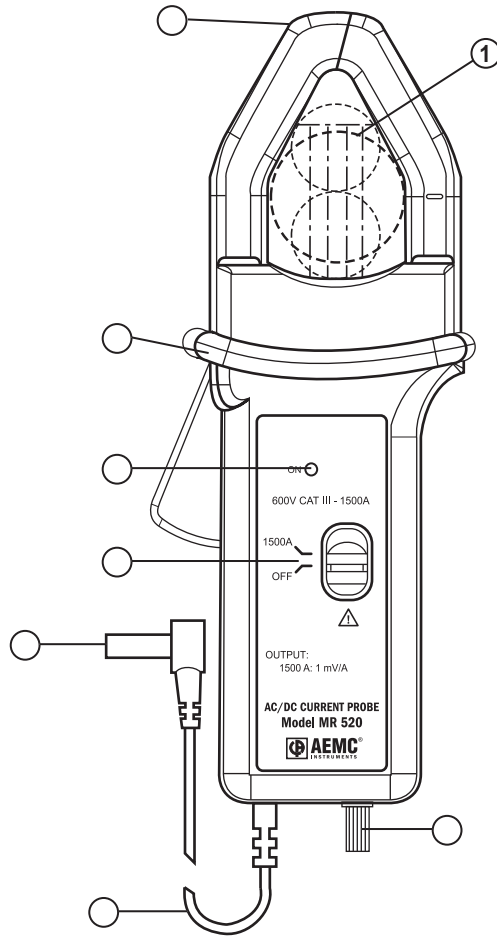
Applications

- DC motors
- Batteries
- Automobile engine testing
- Power measuring quality analysis
- Power load monitoring

Specifications

MODEL	MR520
ELECTRICAL	
Nominal Range	1000A _{AC} /1500A _{DC}
Measurement Range	1 to 1500A
Output Signal	1mV/A
Accuracy (1500A _{DC} Range)	
1 to 100A	1.5% of Reading ± 1A
100 to 800A	2.5% of Reading
800 to 1000A	4% of Reading
1000 to 1400A _{DC} only	4% of Reading
Phase Shift (1500A _{DC} Range)	
10 to 200A	45 to 65Hz: ±2.5°
200 to 1000A	≤1.5°
Overload	2000A _{AC} and 3000A _{DC} continuous up to 1kHz
Frequency Range	DC to 10kHz @ -3dB
Load Impedance	>100kΩ/100pF
Working/Common Mode Voltage	600V _{rms}
Battery	9V Alkaline (Approx. 120 hours life)
Output Termination	5 ft Lead
MECHANICAL	
Operating Temperature	14° to 131°F (-10° to 55°C)
Storage Temperature	-40° to 176°F (-40° to 70°C)
Operating Relative Humidity	10 to 35°C 90% ± 5% RH (without condensation), 40 to 55°C 70% ± 5% RH (without condensation)
Zero Adjustment	10 turn knob at base of case
Jaw Opening	1.2" (31mm)
Maximum Conductor Size	One 1.18" (30mm) or two 0.95" (24mm) or two bus bars 1.2 x 0.4" (31.5 x 10mm)
Dimensions	8.8 x 3.82 x 1.73" (224 x 97 x 44mm)
Weight	1.06 lb (480g)
Polycarbonate Material	Handles: Polycarbonate + ABS, Gray, UL94 V0. Jaws: Polycarbonate, Red, UL94 V0
SAFETY	
Electrical	EN 61010-2-32
CE Mark	Yes

Note: Reference conditions: 18°C to 28°C, 20 to 75% RH, external magnetic field <40A/m, no DC component, no external current carrying conductor, test sample centered, 1MΩ ≤ 100pF load, zero adjustment (DC only) DC to 65Hz, battery voltage 9V ± 0.1V.



1. Conductor
2. Zero adjustment knob
3. Lead, 5 ft (1.5m)
4. Safety banana plug \varnothing 4mm
5. Two-position range selection switch:
 - On/Off
 - 1500A (1mV/A)
6. Green light (on when battery voltage $\geq 6,5V$)
7. Protective non-slip guard
8. Jaws



Leads:
 Double/reinforced
 5 ft (1.5m) lead
 with safety 4mm
 banana plug

ORDERING INFORMATION

CATALOG NO.

AC/DC Current Probe Model MR520 (Lead – 1mV/A – 1500A max)	Cat. #1200.71
Includes a user manual	
Accessories (Optional)	
Banana plug adaptor (to nonrecessed plug)	Cat. #1017.45
Banana/BNC connector XF-SS (4mm plug adaptor)	Cat. #2111.32

To Order Contact: Cal-Tek Company, Inc.

20 Republic Road, North Billerica, MA 01862

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