

# MultiPro™ Series Professional MultiMeters

High Performance Autoranging Digital MultiMeters with RS-232 PC Interface

## Features:

- High basic DC Voltage accuracy of 0.08%
- Wide AC Voltage bandwidth of 40Hz to 20kHz
- Rugged design with protective holster and water resistant housing
- Optically isolated RS-232 PC interface with Windows® 95/98 compatible software (optional) allows user to collect, display, plot, save or export data or graphs
- Backlit 5000 count LCD display for high resolution (0.01mV, 0.1µA, 0.01Ω, 0.01nF, 0.001Hz)
- Smart auto power off is disabled if signal is present at test leads
- Hold and low resistance auto-lead zero
- Measurement functions include AC/DC Voltage and Current, Resistance, Frequency, Capacitance, Diode and Continuity
- Complete with built-in stand, CAT. III test leads, protective holster, 9V battery and temperature probe (model dependent)



### Model MP510

- 0.08% Basic DC Accuracy



### Additional Features

#### Model MP520:

- True RMS measurements for AC Voltage and Current



### Additional Features

#### Model MP530:

- True RMS measurements for AC Voltage and Current
- °F/°C Temperature function
- Relative, Min, Max, Max-Min and 5ms Peak hold
- Analog bargraph Zoom provides 5x resolution to detect small signals (updates 60/sec)



CAT III - 600V,  
CAT II - 1000V



Specifications	Range	Max. Resolution	Basic Accuracy (%rdg+digits)
DC/AC Voltage:	50mV, 500mV, 5V, 50V, 500V, 1000V	0.01mV	±(0.08%+2d) DC ±(0.5%+3d) AC
DC/AC Current:	500µA, 5000µA, 50mA, 500mA, 5A, 10A	0.1µA	±(0.2%+4d) DC ±(0.6%+3d) AC
Resistance (Ω):	50, 500k, 5k, 50k, 500k, 5M, 50M	0.01Ω	±(0.1%+2d)
Capacitance:	50nF, 500nF, 5µF, 50µF, 500µF, 9999µF	0.01nF	±(0.8%+3d)
Frequency:	0.001Hz to 125kHz	0.001Hz	±(0.01%+2d)
Temperature:	-58 to 1832°F (-50 to 1000°C) 0.1°F/°C (MP530 only)		±(0.3%+3d)
Dimensions/ Wt:	7.32 x 3.42 x 1.39" (186 x 87x 35.5mm) / 0.75lb (340g)		



All models include Double injection molded CAT. III - 1000V Test Leads for safety, better grip and added durability.

## Applications:

- True RMS is ideal for voltage and current measurements of distorted waveforms in office and industrial locations
- Wide bandwidth for audio frequency and digital electronic production test and repair
- Monitor, display and store data using the optional PC software

## Ordering Information:

MP510.....MultiPro™ Professional MultiMeter  
 MP520.....MultiPro™ True RMS Professional MultiMeter  
 MP530.....MultiPro™ True RMS Professional MultiMeter w/ Temp  
 SW800.....MultiPro™ Software Diskette and RS-232 Cable  
 TP872.....Spare bead wire Temperature Probe  
 TL805.....Spare set of CAT. III - 1000V Test Leads  
 TL807.....Set of Alligator Clips (2pk)  
 CA899.....Vinyl Pouch Carrying Case  
 FS880.....Spare Fuse

NIST CERTIFICATES WITH DATA AVAILABLE FOR ALL MODELS.  
 ADD "-NIST" TO END OF PART NUMBER



# MultiPro™ Series Professional MultiMeters

High Performance Autoranging Digital MultiMeters with RS-232 PC Interface

FUNCTION	RANGE	ACCURACY (% rdg + digits)	NOTES
DC Voltage:	50.00mV	$\pm(0.12\% + 2d)$	Input Impedance: 10M $\Omega$ Input protection; V;1050Vrms, mV; 600VDC/AC
	500.0mV	$\pm(0.06\% + 2d)$	
	5.000V	$\pm(0.08\% + 2d)$	
	50.00V	$\pm(0.08\% + 2d)$	
	500.0V	$\pm(0.08\% + 2d)$	
	1000V	$\pm(0.08\% + 2d)$	
AC Voltage:	50.00mV	$\pm(0.5\% + 3d)$	Input Impedance: 10M $\Omega$ Stated specification at 50/60Hz (wider specs at 40Hz to 20kHz) True RMS (MP520 & 530) Input protection; V;1050Vrms, mV; 600VDC/AC
	500.0mV	$\pm(0.5\% + 3d)$	
	5.000V	$\pm(0.5\% + 3d)$	
	50.00V	$\pm(0.5\% + 3d)$	
	500.0V	$\pm(0.5\% + 3d)$	
	1000V	$\pm(0.5\% + 3d)$	
DC Current:	500.0 $\mu$ A	$\pm(0.2\% + 4d)$	Burden voltage; 0.15mV/ $\mu$ A, 3.3mV/mA, 0.03V/A On 10A range, 20A for 30 seconds with 5 minute cool down Input protection; $\mu$ A/mA 1A/240V fuse, A 13A/240V fuse
	5000 $\mu$ A	$\pm(0.2\% + 4d)$	
	50.00mA	$\pm(0.2\% + 4d)$	
	500.0mA	$\pm(0.2\% + 4d)$	
	5.000A	$\pm(0.2\% + 4d)$	
	10.00A	$\pm(0.2\% + 4d)$	
AC Current:	500.0 $\mu$ A	$\pm(0.6\% + 3d)$	Stated specification @ 50/60Hz (wider specs at 40Hz to 1kHz) On 10A range, 20A for 30 seconds with 5 minute cool down True RMS (MP520 & 530) Input protection; $\mu$ A/mA 1A/240V fuse, A 13A/240V fuse
	5000 $\mu$ A	$\pm(0.6\% + 3d)$	
	50.00mA	$\pm(0.6\% + 3d)$	
	500.0mA	$\pm(0.6\% + 3d)$	
	5.000A	$\pm(0.6\% + 3d)$	
	10.00A	$\pm(0.6\% + 3d)$	
Resistance:	50.00 $\Omega$	$\pm(0.2\% + 6d)$	Open circuit voltage:<1.3VDC (<3VDC on 50 $\Omega$ & 500 $\Omega$ ranges) Input protection; 600VDC/AC
	500.0 $\Omega$	$\pm(0.1\% + 3d)$	
	5.000k $\Omega$	$\pm(0.1\% + 2d)$	
	50.00k $\Omega$	$\pm(0.1\% + 2d)$	
	500.0k $\Omega$	$\pm(0.1\% + 2d)$	
	5.00M $\Omega$	$\pm(0.4\% + 3d)$	
Capacitance:	50.00M $\Omega$	$\pm(1.5\% + 5d)$	Accuracies stated for film capacitors or better Input protection; 600VDC/AC
	50.00nF	$\pm(0.8\% + 3d)$	
	500.0nF	$\pm(0.8\% + 3d)$	
	5.000 $\mu$ F	$\pm(1.0\% + 3d)$	
	50.00 $\mu$ F	$\pm(2.0\% + 3d)$	
	500.0 $\mu$ F	$\pm(3.5\% + 5d)$	
Temperature: (MP530 only)	-58F to 1832°F	$\pm(0.3\% + 5d)$	Thermocouple range and accuracy not included
	-50 to 1000°C	$\pm(0.3\% + 3d)$	

Frequency:	Function	Range	Sensitivity	Accuracy (%rdg + digits)
	mV	5Hz to 125kHz	300mV	$\pm(0.01\% + 2d)$
	5V	5Hz to 125kHz	2V	$\pm(0.01\% + 2d)$
	50V	5Hz to 20kHz	20V	$\pm(0.01\% + 2d)$
	500V	5Hz to 1kHz	80V	$\pm(0.01\% + 2d)$
	1000V	5Hz to 1kHz	300V	$\pm(0.01\% + 2d)$
	$\Omega$ , Cx, diode	5Hz to 125kHz	300mV	$\pm(0.01\% + 2d)$
	$\mu$ A, mA, A	5Hz to 125kHz	10%FS	$\pm(0.01\% + 2d)$

Diode test: 2.000V  $\pm(1\% + 1digit)$  Open circuit voltage <3.5V, 0.8mA typical test current

Continuity: Buzzer sounds between 20 $\Omega$  and 200 $\Omega$ , Response time <100 $\mu$ s

Crest Mode: (for V&A)  $\pm 150$  digits for changes > 5msec in duration

Display: 5000 count LCD with backlighting and bargraph

Update Rate: 5 per second, Bargraph; 60 per second

Auto Power Off: After 17 minutes inactive

Standards: IEC 1010, CAT. III- 600V

Operating Temperature: 32 to 122°F (0 to 50°C)

Storage Temperature: -4 to 176°F (-20 to 60°C)

Relative Humidity: 80% (32 to 95°F/ 0 to 35°C), 70% (95 to 122°F/ 35 to 50°C)

Power Supply: 9V alkaline battery

Power consumption: 2.7mA typical

Dimensions: 7.32 x 3.42 x 1.39" (186 x 87 x 35.5mm)

Weight: 0.75lb (340g)

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