

## AC/DC TRMS Clamp Meter Model 474

### INTRODUCTION

METRAVI-PRO 474 is the most complete AC T-RMS / DC clamp meter with data logger with all the features that you could possibly think off. No need to remove display to have remote display of readings, just connect this clamp meter via Bluetooth 4.0 to the smart phone using Free App to display data at remote location and to record the data. The recorded data can then be converted to report and text could be added to make final report and can be sent via email.

The trend capture facility is available not only in the instrument but also on the smart phone simultaneously. The data logging can also be done in both the instrument as well as the smartphone.

The flexible current clamp provided can measure up to 3000 AAC. The instrument confirms to CAT-IV 600V, CAT-III 1000V, CE, IEC-61010-1. Inrush Current measurement, VFD AC T-RMS Voltage measurement and Lo-Z Voltage measurement can be done with this clamp meter. AC+DC Voltage measurement can also be accomplished.

The data logging can be done for all parameters that the instrument can measure. The instrument has a color TFT LCD Display.

- Professional T-RMS AC/DC Clamp Meter
- Color TFT LCD Display 6000 Counts
- Bluetooth 4.0
- Flexible Clamp to measure up to 3000A AC
- Confirms to CAT-IV 600V, CAT-III 1000V, CE, IEC-61010-1
- 1000V AC/DC Protection in all ranges
- 34 mm Clamp Jaw Dia
- Auto Power Off
- No need to remove display, get the display right on your mobile phone using Bluetooth 4.0
- Data Logging Facility in the instrument and over Bluetooth on the mobile Phone
- Inrush Current, VFD AC T-RMS Voltage, Lo-Z Voltage
- Non Contact Voltage Detector
- Flash light in the Jaw to access dark areas
- Double Injection Housing, providing double insulation
- Peak Mode, MAX/MIN Record, Relative Measurement
- Trend Capture for Voltage and Current within the instrument and simultaneously on smart phone.
- 1000V AC T-RMS/DC
- 1000A AC T-RMS/DC
- AC+DC Voltage
- 3000A AC Through Flexible Clamp (Flexible Clamp Included)
- 100mF Capacitance, 100kHz Frequency, 60M, Ohms Resistance
- Temperature upto 1000 Degree C using K type sensor
- Temperature measurement in C / F scales
- Free App available.
- Report generation with trend capture and data table
- Report can be exported and shared right from the App from your phone
- Save and Retrieve data measured.



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### GENERAL SPECIFICATIONS

<b>Clamp Jaw Opening</b>	1.3" (34mm) approx.
<b>Display</b>	3-5/6 digits (6000counts) TFT Color LCD
<b>Continuity Check</b>	Threshold 50Ω Test current <0.5mA.
<b>Diode Test</b>	Test current of 0.3mA typical : Open circuit voltage <3.3V DC typical.
<b>Over-Range Indication</b>	"OL" display
<b>Measurement Rate</b>	3 readings per second, nominal
<b>Peak</b>	Captures peaks >1ms
<b>Temperature Sensor</b>	Type K thermocouple
<b>Input Impedance</b>	10M VDC and 9M VAC
<b>AC Response</b>	True RMS (AAC and VAC)
<b>Operating Temperature</b>	5 to 40°C (41 to 104°F)
<b>Storage Temperature</b>	-20 to 60°C (-4 to 140°F)
<b>Operating Humidity</b>	Max 80% upto 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)
<b>Storage Humidity</b>	<80%
<b>Operating Altitude</b>	7000ft. (2000 meters) maximum.
<b>Battery</b>	Three (3)AAA battery
<b>Auto Power Off</b>	After approx. 15-60 minutes.
<b>Safety</b>	For indoor use and in accordance with the requirements for double insulation to IEC1010-1 (2001): EN61010-1 (2001) Over voltage Category III 1000V and Category IV 600V, Pollution Degree 2.

### SPECIFICATIONS

Accuracy calculated as [% reading+(num.digits\* resolution)]  
at 18 to 28°C; <75%HR.

#### DC Voltage

Range	Resolution	Accuracy
600.0mV	0.1mV	±(0.5% +8 digits)
6.000V	0.001V	±(1.5% +5 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Input Impedance** : >10MΩ

**Protection Against Overcharge** : 1000V AC/DC RMS

#### AC TRMS Voltage (50Hz-400Hz)

Range	Resolution	Accuracy
6.000V	0.001V	±(1.5% +5 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Input Impedance** : >9MΩ

**Protection Against Overcharge** : 1000V DC/AC rms.

**Accuracy Specified from** : 10% to 100% of the measuring range,  
sine wave

**Accuracy PEAK Function** : ±10%rdg, PEAK response time : 1ms  
VFD AC Voltage reading for reference only.

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### LowZ AC TRMS Voltage (50Hz-400Hz)

Range	Resolution	Accuracy
6.000V	0.001V	±(3.0% + 40 digits)
60.00V	0.01V	
300.0V	0.1V	

**Input Impedance** : < 300kΩ

**Protection Against Overcharge** : 1000V DC/AC RMS.

**Accuracy Specified from** : 10% to 100% of the measuring, rang, sine wave.

### DC Current

Range	Resolution	Accuracy
600.0A	0.1A	±(2.5% + 5 digits)
1000A	1A	±(2.8% + 5 digits)

**Protection Against Overcharge** : 1000A DC/AC rms

### AC TRMS Current (50Hz-60Hz)

Range	Resolution	Accuracy
600.0A	0.01A	±(2.5% + 5 digits)
1000A	1A	±(2.8% + 5 digits)

**Protection Against Overcharge** : 1000A DC/AC rms

### Flexible Coil Current (50Hz-400Hz)

Range	Resolution	Accuracy
30.00A	0.01A	±(3.0% + 5 digits)
300.0A	0.1A	
3000A	1A	

**Protection Against Overcharge** : 3000A DC/AC rms

**Accuracy Specified from** : 10% to 100% of the measuring range, sine wave.

### Resistance and Continuity Test

Range	Resolution	Accuracy
600.0Ω	0.1Ω	±(1.0% + 10 digits)
6.000kΩ	0.001kΩ	±(1.5% + 5 digits)
60.00kΩ	0.01kΩ	
600.0kΩ	0.1kΩ	
6.000MΩ	0.001MΩ	±(2.5% + 5 digits)
60.00MΩ	0.01MΩ	±(3.5% + 10 digits)

**Buzzer** : <50Ω

**Protection Against Overcharge** : 1000V DC/AC RMS.

### AC+DC TRMS Voltage (50Hz-400Hz)

Range	Resolution	Accuracy
6.000V	0.001V	±(2.5% + 20 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Input Impedance** : > 10MΩ

**Protection Against Overcharge** : 1000V DC/AC rms.

### Diode Test

Test Current <1.5mA
Max voltage with open circuit : 3.3V DC

### Frequency (Electronic Circuits)

Range	Resolution	Accuracy
9.999Hz-99.99kHz	0.01-10Hz	±(1.2% + 5 digits)

**Protection Against Overcharge** : 1000V DC/AC RMS.

**Sensitivity** : >5Vrms (at 20% - 80% duty cycle)

### Duty Cycle

Range	Resolution	Accuracy
10.0% - 90.0%	0.1%	±(1.2% + 8 digits)

**Pulse Frequency Range** : 40Hz - 10kHz

**Pulse Amplitude** : ±5V (0.1ms - 100ms)

### Capacitance

Range	Resolution	Accuracy
60.00nF	0.01nF	±(4.0% + 20 digits)
600.0nF	0.1nF	±(3.0% + 8 digits)
6.000μF	0.001μF	
60.00μF	0.01μF	
600.0μF	0.1μF	±(5.0% + 8 digits)
6000μF	1μF	±(5.0% + 20 digits)
60.00mF	0.01mF	
100.0mF	0.1mF	

**Protection Against Overcharge** : 1000V DC/AC RMS.

### Temperature with K-Type Probe

Range	Resolution	Accuracy
-40.0 to 600.0°C	0.1°C	±(1.5% + 3°C)
600 to 1000°C	1°C	
-40.0 to 600.0°F	0.1°F	±(1.5% + 5.4°F)
600 to 1800°F	1°F	

**Protection Against Overcharge** : 1000V DC/AC RMS.

Instrument accuracy without prob; Specified accuracy with stable environmental temperature at ±1°C

For long-lasting measurements, reading increases by 2°C