

METRAVI PRO®

Digital TRMS Clamp Meter with IR Thermometer PRO IRC-600 / PRO IRC-700

DESCRIPTION

The Metravi PRO IRC-600 and PRO IRC-700 Clamp Meters provide fast A/D converting sampling time, high accuracy, TRMS AC measurements and also offer all needed features for measurements, including Non-contact Voltage Detector and a built-in Infrared Thermometer!

They feature a modern body with double-moulded housing and 34mm jaws designed for perfect handhold and tight place testing. A clear, backlit, 6000 Counts LCD display is easy to see and a handy data hold keeps measurements on the display.

GENERAL SPECIFICATIONS

Clamp Size:

Opening 1.3" (33mm) approx

TRMS:

The AC Voltage and AC Current of this instrument are measured by TRMS, True RMS measurement is different from mean measurement.

The mean measurement method can only measure the symmetric waveform, such as sine wave.

True RMS measurements can reliably measure any irregular waveform and obtain valid values for AC voltage or AC current.

Diode Test:

Test current of 0.3mA typical;
Open circuit voltage 3.2V DC typical.


Continuity Check:

Threshold <50Ω; Test current < 0.5mA

Low Pass Filter:

VFD Measurements

Low Battery Indication:

" " is displayed

Overrange Indication:

"OL" is displayed

Measurements Rate:

2 per second, Nominal $\geq 10M\Omega$ (VDC and VAC)

Input Impedance:

Display:

6000 counts LCD

AC Current:

50 to 60Hz (AAC)

AC Voltage Bandwidth:

50 to 1000Hz (VAC)

Operating Temperature:

5 to 40°C (41 to 104°F)

Storage Temperature:

-20 to 60°C (-4 to 140°F)

Operating Humidity:

Max 80% up to 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)

Storage Humidity:

<80%RH

Operating Altitude:

2000 meters (7000ft.) maximum.

Over Voltage:

CAT III 1000V, CAT IV 600V

Battery:

Three "AAA" 1.5V Battery

Auto Power-off:

After approx. 15 minutes of non-operation

Safety:

For indoor use and in accordance with Overvoltage Category II, Pollution Degree 2.

Category II includes local level, appliance, portable equipment, etc., with transient overvoltages less than Overvoltage CAT III.



Digital TRMS Clamp Meter with IR Thermometer PRO IRC-600 / PRO IRC-700

TECHNICAL SPECIFICATION

DC Current (PRO IRC-700 only)

Range	Resolution	Accuracy
60A	0.01A	±(2.8% + 8 digits)
600A	0.1A	±(2.8% + 5 digits)

AC Current (T-RMS)

Range	Resolution	Accuracy
60A	0.01A	±(1.5% + 10 digits)
600A	0.1A	

DC Voltage

Range	Resolution	Accuracy
600mV	0.1mV	±(0.8% + 4 digits)
6V	0.001V	±(1.2% + 5 digits)
60V	0.01V	
600V	0.1V	
1000V	1V	

AC Voltage (T-RMS)

Range	Resolution	Accuracy
6V	0.001V	±(1.5% + 5 digits)
60V	0.01V	
600V	0.1V	
1000V	1V	

Resistance

Range	Resolution	Accuracy
600Ω	0.1Ω	±(1.5% + 6 digits)
6kΩ	0.001kΩ	±(2.0% + 5 digits)
60kΩ	0.01kΩ	
600kΩ	0.1kΩ	
6MΩ	0.001MΩ	±(2.8% + 10 digits)
60MΩ	0.01MΩ	

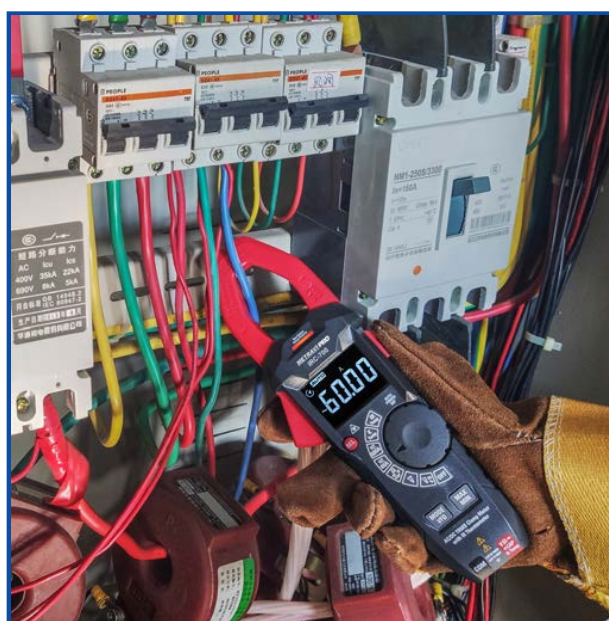
Capacitance

Range	Resolution	Accuracy
999.9nF	0.1nF	±(4% + 6 digits)
9.999μF	0.001μF	
99.99μF	0.01μF	
999.9μF	0.1μF	
9.999mF	0.001mF	±(6% + 15 digits)
99.99mF	0.01mF	

Frequency

Range	Resolution	Accuracy
5 to 9.999Hz	0.001Hz	±(1.5% + 6 digits)
99.99Hz	0.01Hz	
999.9Hz	0.1Hz	
9.999kHz	0.001kHz	

Sensitivity: >8Vrms



Digital TRMS Clamp Meter with IR Thermometer PRO IRC-600 / PRO IRC-700

Duty Cycle

Range	Resolution	Accuracy
20.0% to 80.0%	0.1%	$\pm(1.2\% + 5 \text{ digits})$

Sensitivity: >8Vrms

Type-K Temp

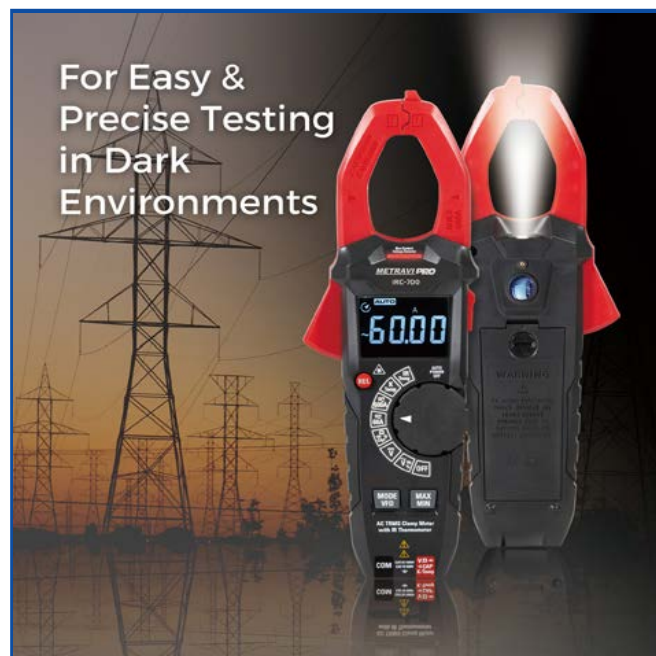
Range	Resolution	Accuracy
-20.0° to 1000°C	0.1°C	$\pm(3\% + 3^\circ\text{C})$
-4.0° to 1800°F	0.1°F	$\pm(3\% + 6^\circ\text{F})$

Probe accuracy not included.

Infrared Temperature

Range	Resolution	Accuracy
-30.0° to 350.0°C	0.1°C	$\pm 3^\circ\text{C}$ at -30 to 0°C
		$\pm 2.0\%$ or $\pm 2^\circ\text{C}$ at 0 to 350°C
-22.0° to 662.0°F	0.1°F	$\pm 5^\circ\text{F}$ at -22 to 32°F
		$\pm 2.0\%$ or $\pm 4^\circ\text{F}$ at 32 to 662°F

D:S=4:1



Features for Dark Environments:

- Flashlight
- Backlit LCD
- Backlit Rotary Knob Indicator
- Backlit Ranges

Accessories: Carrying Case, Silicon Test Leads, K-type Thermocouple, Thermocouple Adaptor, User Manual, Batteries

Note: Accuracy is given as $\pm(\%$ of reading+counts of least significant digit) at $23^\circ\text{C}\pm 5^\circ\text{C}$, with relative humidity less than 80%RH. The precision index mentioned above refers to the accuracy of 40%~60% range of each measurement range. The accuracy index of the current measured outside the measuring range increased by 1.5%, and the accuracy of other measurement functions increased by 1%. Check waveform is sine wave. Current accuracy assessment shall be based on the position of clamp center.