

A world of professional measurement at hands reach

*Enhanced ergonomics. High performance in a handy compact design:
for all-purpose multimeter clamps that offer more.*

RMS Multimeter clamps



- For measurement of voltage, current resistance, temperature, power and frequency
- Measures RMS for all currents, sinusoidal and distorted
- Enhanced ergonomics for ease of use
- Auto AC/DC, Auto-range, Hold, Backlit LCD screen
- Optimal safety: V-live protection, EN 61010-1, 600V Cat III
- Compliant with IEC 61010 CAT II 1000 V / CAT III 600 V / CAT IV 300 V

■ High-performance and compact.

F0x multimeter clamps measure true RMS for all currents, even the most distorted. The reading displayed is true!

■ More than a simple multimeter!

Combining advanced technology and compact design, these clamps propose a wide range of professional measurements in a single apparatus!

- AC/DC voltage
- AC/DC intensity
- resistance with audible continuity and semi-conductor test
- Frequency
- Single and balanced three-phase power
- Temperature
- Adapter function allowing the addition of probes adapted to different physical measurements: hygrometry, light metering, tachometry, etc.

■ Other special features

On three-phase systems, the phase rotation sequence is indicated.

A Min/Max button allows access to minimum and maximum values (AC and DC) as well as to the peak values of a signal.

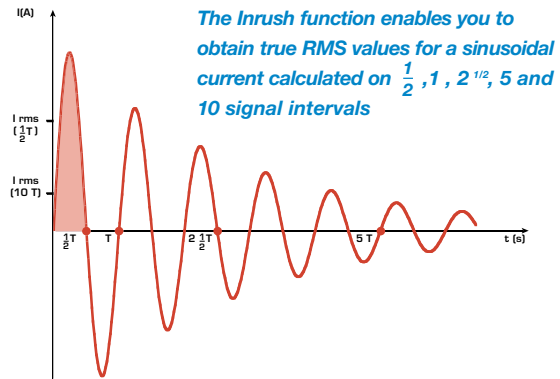
Another "extra": in resistance mode the semi-conductor test (or diode test) verifies that the different components are functioning correctly, and detects any short-circuits or cuts on your installation.

■ Measuring motor inrush currents

A strong inrush current may set off its safety system or even damage your installation. The "Inrush current" function measures the evolution of the motor's start-up current, without requiring graphic display, and defines the amplitude-time parameters of the motor's safety device.



Measuring motor inrush currents



Select your clamp

Function/Model	F01	F03	F05	F07 <small>TRMS</small>	F09 <small>TRMS</small>
Measurement [in true RMS]	[AC]	[AC], DC	[AC], DC	[AC+DC], [AC], DC	[AC+DC], [AC], DC
AC / DC current	AC	•	•	•	•
AC / DC voltage	•	•	•	•	•
Power (W, VA, var, PF) single- and three-phase			• (W and PF single-phase only)		•
Phase rotation			•		•
Motor start-up (InRush)			•	•	•
Temperature		•		•	
Frequency			•	•	•
Backlit LCD display		•	•	•	•
Automatic switch-off	•	•	•	•	•
Display Hold function	•	•	•	•	•
Battery level indicator	•	•	•	•	•
Presence of dangerous voltage (V-live)	•	•	•	•	•
Automatic AC / DC Choice of automatic/manual mode		•	•	•	•
Automatic zero DC		•	•	•	•
Lead Resistance compensation		•	•	•	•
Min / Max 100 ms		•	•	•	•
Peak 500 μs		•	•	•	•

■ Ease of use and enhanced safety features

On the ohmmeter function, the Hold button carries out lead resistance compensation automatically (Ω Zero), ensuring reliable measurements without necessitating complex adjustments.

Likewise, in DC ammeter mode, the apparatus also automatically corrects direct current measurement variations (DC Zero) by simply pressing on the function key.

User safety is ensured thanks to the V-live function integrated on the clamps: a buzzer sounds in voltage measurement mode, to warn that a potentially dangerous voltage (greater than 45 V peak) has been detected.



Measurement of physical quantities is made easy, using the F07 adapter function : with memorisation in scale factor decades enabling the direct reading of measurements



Measuring temperature

By the simple addition of a sensor, the Temperature function of F03 and F07 clamps measures both ambient and surface temperatures, in °C or °F.

■ Enhanced ergonomics

After several minutes without use, the clamps switch-off automatically, optimizing battery autonomy. Light and robust, the clamps are specially designed for all-round professional use.

Each clamp automatically **selects the nature of the signal to be measured (AC or DC) and the measurement range (auto-range)**. It is however possible to switch to manual mode as desired.



Because they are so small and easy to handle, these F01/F03/F05/F07/F09 clamps can be used anywhere !

Specifications *

- **Display:** 4 000 points
- **Voltages (in 3 ranges)**
 - ➔ AC from 0.20 V to 600 V eff. / 900 V peak
 - ➔ DC from 0.20 V to 600 V
 Accuracy**: 1%L + 2 cts
 Impedance: 1 MΩ
- **Currents (in 3 ranges)**
 - ➔ AC from 0.20 A to 400.0 A eff. / 600 A peak
 - ➔ DC from 0.20 A to 400.0 A
 Accuracy*: 1.5%L + 2 cts
- **Bandwidth:** 1 kHz
- **Crest factor:** 3.5
- **Resistances:**
 - ➔ F01 from 0.2 to 400 Ω (in 1 range)
 - ➔ F03 from 0.2 to 4000 Ω (in 2 ranges)
 - ➔ F05/F07/F09 from 0.2 to 40.00 kΩ (in 3 ranges)
 Accuracy**: 1%L + 2 cts
- **Continuity:**
thresholds programmable from 1 to 40 Ω
- **Min/Max :** 100 ms typ.
- **Peak :** 500 μs typ.
- **V-live :** > 45 V peak ± 2 V
- **Frequencies** from 10.00 Hz to 19.99 kHz
Accuracy*: 0.4%L + 1 ct
- **External temperature** from -50 °C to 1000 °C
Accuracy: 1%L + 1.5°C
(via optional thermocouple K)
- **AC power supplies:** from 5 W to 240 kW;
from 5 to 240 kvar ; from 5 to 240 kVA
Accuracy: 2%L + 2 cts
- **Power factor:** 0.20 à 1.00
- **Phase angle rotation:**
2-wire frequency range method:
50 or 60 Hz ± 3 Hz
- **Inrush current :**
Calculated on RMS voltage at $\frac{1}{2}$, 1, 2^{1/2}, 5 and 10 signal cycles - Frequency range: 15 to 70 Hz
- **Adapter function**
Input signal: 0.5 mV to 4000 V
 - Typical accuracy: 1 %R ± 2 cts
 - Programmable scale factor for direct reading of the value from 0.001 to 100 000 for all sensors in connection with decades (output/input).
For example: 1 mV/100Lux
- **Dimensions:** 70 x 193 x 37 mm
- **Weight:** 260 g
- **Power supply:**
standard 9 V battery 6LF22
Operating radius:
25 000 measurements at 10 s
Flashing battery level indicator:
battery life < 1h
- **Clamping diameter:** < 26 mm
- **Standards:**
EN 61010-1/
EN 61010-2-032 - 600 V Cat III poll.2
- **Operating conditions:**
0 to 50 °C / 90 % RH
Storing conditions:
- 40 to 70 °C / 90 % RH
- **Impermeability:** IP 40
- **Electromagnetic compatibility:**
EN 61326-1, ed. 97

* Varies according to model
** Accuracy of the best range

To order

	Ref.
F01 Clamp	P01.1209.01Z
F03 Clamp	P01.1209.13Z
F05 Clamp	P01.1209.05Z
F07 Clamp	P01.1209.07Z
F09 Clamp	P01.1209.09

Delivered with carrying case, a set of 2 test probe leads, 9 V battery, and user's manual (+ an adapter for k thermo-couple on models F03 and F07, + a crocodile clip on model F05 and F09)

■ Accessories	
Set of 2 safety plug leads (IEC1010)	P01.2950.88
Set of 2 crocodile clips (IEC1010)	P01.1018.48
Set of 2 test probe leads IP2X	P01.2951.57
Accessories kit	P01.1019.98

A complete range of physical measurement accessories.
Catalogue available on request.

■ Spares	
Set of 2 test probe leads (IEC1010)	P01.2950.84
Carrying case n°7	P01.2985.32
Adapter for K thermocouple (F03 and F07 models)	P01.1017.80



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