

# F404T

## AC/DC Photovoltaic Clamp Meter

Zero DC current on the panel strings

Safety comes first



IP 54

CAT IV  
1000 V

CAT III  
1500 V



Measure up



# Ensure the safety of your work on photovoltaic systems

## THE DANGER OF AN ELECTRIC ARC

Photovoltaic systems consist of a series of strings of panels connected in series and in parallel to increase the current and voltage that an inverter collects to generate electrical energy. When working on the system, the technician will need to disconnect part of the system, for example to replace a panel or connector, repair a faulty cable, work on the inverter, or replace fuses.

As with any source of electrical energy, the risk of electric shock remains present. Opening a string that continuously carries direct current poses a significant risk; an electric arc may form and endanger people or cause significant property damage.

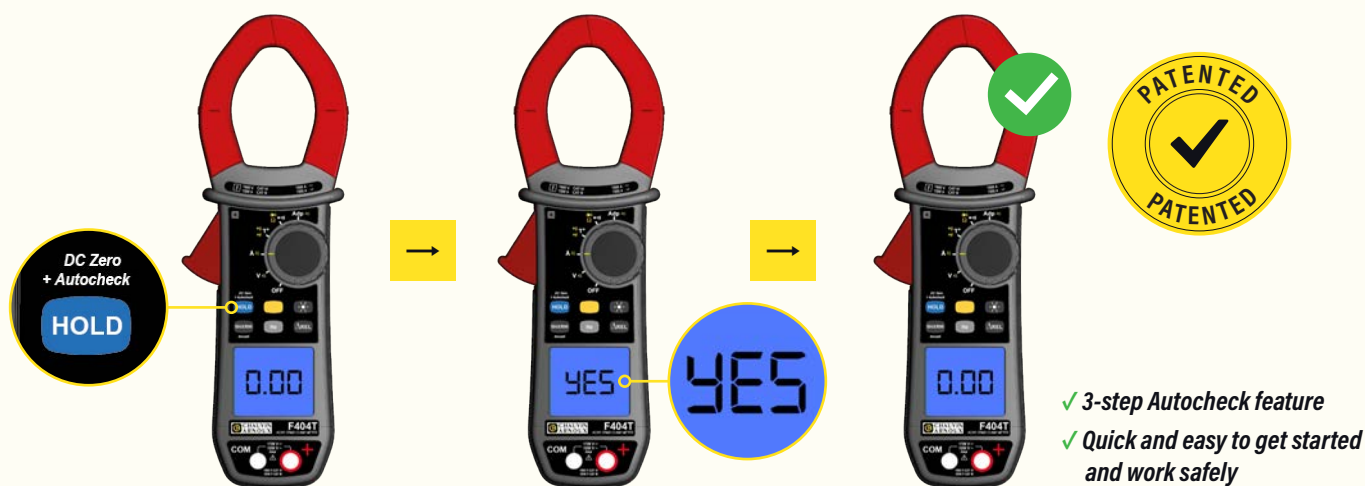


Electrical professionals have made it a habit to secure the system before any maintenance, repair, or technical work to ensure they are working on a de-energized system. However, for work on photovoltaic systems, it is the **verification of the absence of current** that matters, and this is performed using a clamp meter.

## ENSURE THE RELIABILITY OF THE POWER FAILURE DETECTION SYSTEM

However, a standard current clamp that is improperly configured or defective may falsely indicate the absence of current, creating a new source of risk.

Only the F404T clamp has proven its reliability; it incorporates a patented **Autocheck** function that generates a direct current and allows for verification of proper operation.



## MONITORS THE OPERATION OF THE SYSTEM

- DC currents up to 1500 A and DC voltages up to 1700 V for in-service monitoring of a photovoltaic system
- Temperature: supplied with a Type K thermocouple probe, the F404T clamp can monitor the temperature at the rear of photovoltaic panels

### + TRAFFIC CITATIONS

Up to 1500 A<sub>DC</sub> and 1700 V<sub>DC</sub>

### + AUTOCHECK SAFETY

To ensure the reliability of the power-off check

## A 2-IN-1 CLAMP METER

High-performance, it features a fast 12-bit TRMS digital acquisition system that delivers high measurement accuracy. General-purpose, in addition to the measurements available in the F404 clamp meter family, it offers assistance and analysis functions to facilitate field diagnostics:

- The Min and Max functions, where values are calculated as TRMS over a 100 ms period.
- The  $\Delta$ REL and  $\Delta$ REL/R functions. Expressed in the unit of the measured quantity, the differential value gives the difference between the stored reference value and the measured value; whereas the relative value gives a proportion, expressed as a percentage, between this difference and the reference value.

### SAFETY AND DURABILITY

Safety rating: 1000 V CAT IV / 1500 V CAT III.

The IP54 protection rating protects the device from dust in particular, thereby ensuring its safety over time.

The mechanical design of this clamp allows it to pass the standard drop test from a height of 2 meters.

### PERFORMANCE

The F404T clamp meter features a fast 12-bit TRMS digital acquisition system that delivers high measurement accuracy. Thanks to its wide bandwidth and high crest factor, this clamp provides accurate measurements regardless of the signal type.

### ERGONOMICS

The F404T clamp meter is designed for one-handed operation, even when wearing protective gloves.

For maximum efficiency and simplicity, each measurement corresponds to a switch position, and each button corresponds to a single function.

The clamp features automatic detection of AC or DC signal type for current and voltage.



Clamping diameter: 48 mm

The rotary switch is overmolded to ensure a secure grip even when wearing protective gloves

Equipped with a shock-absorbing strap, the pliers' housing offers excellent resistance to drops

Exceptional readability thanks to the high-resolution backlit LCD display (10,000 dots), which offers unparalleled contrast and viewing angles

### + EFFECTIVENESS

Automatic AC/DC detection

### + SIMPLICITY

One function per key

### + SAFETY

Category IV up to 1000 V

# TECHNICAL SPECIFICATIONS

## F404T

	<b>F404T</b>		
Display	Screen type/Display	Backlit LCD	
	Resolution	10,000 points	
	Measurements displayed	1	
Acquisition method	12-bit AC/DC TRMS		
Automatic ranges (Autorange)	Yes		
Automatic AC/DC detection	Yes (in V and A)		
Current	AC range	0.25 to 1000 A (1500 A <sub>peak</sub> )	
	DC range	0.25 to 1500 A	
	Best accuracy	1% L ± 3 pts	
Voltage	AC range	0.15 to 1200 V (1700 V <sub>peak</sub> )	
	DC range	0.15 to 1700 V	
	Best accuracy	1% L ± 3 pts	
Frequency	Current	5.0 Hz to 2000 Hz	
	In voltage	5.0 Hz to 20.00 kHz	
Resistance	Range	0.1 Ω to 99.99 kΩ	
	Open-circuit voltage	≤ 3.6 V	
	Measurement current	≤ 550 μA	
Audible continuity	Continuity threshold	Adjustable between 1 and 999 Ω	
Diode test	(semiconductor junction)	Yes	
Temperature	Type K	-60.0 °C to +1000 °C	
		-76.0 °F to +1832 °F	
Functions	Adapter function	Yes	
	Autocheck I <sub>DC</sub>	Yes	
	True Inrush	Overcurrent measurement	
		Motor start-up	
		Load change	
	Min / MAX	Yes / Yes (100 ms)	
	ΔREL (relative ΔX / differential ΔX/X)	Yes / Yes	
Auto Power Off	Yes		
Electrical Safety	IEC/EN 61010-2-032	1000 V CAT IV / 1500V CAT III	
Protection rating	IEC 60529	IP54	
Ø clamping/clamping diameter	48 mm		
Dimensions	92 × 272 × 41 mm		
Weight	600 g		
Power supply	4 × 1.5 V AA		



### DELIVERY STATUS

- 1 set of PVC cables with a Ø4 mm male banana plug (angled) and a Ø4 mm male banana plug (straight), 1.5 m long, CAT IV 1000 V-CAT III 1500 V 15 A, dual-material
- 1 set of 2 test probes/insulated female plug Ø4 mm, CAT IV 1000 V - CAT III 1500 V 15 A, dual-material
- 1 set of PVC cables with male banana plugs Ø4 mm/MC4 M/F type
- 1 thermocouple wire with insulated Ø4 mm banana connectors, 19 mm center-to-center spacing
- 4 1.5 V AA alkaline batteries
- 1 paper quick start guide in 5 languages
- 1 pre-fitted MultiFix bag

### TO ORDER

F404T.....P01120948