

FR1050 Series Flexible Current Clamp Meter



I . Characteristic

FR1050 series flexible current clamp meter is carefully designed and manufactured for field testing of AC large current and leakage current. With the characteristics of high precision, good linearity and anti-interference ability, it can replace traditional ordinary clamp meters and large-caliber clamp meters to measure large current leakage current, and is widely used in electric power, communication, meteorology, railway, oil field, construction, measurement, scientific research and teaching units, industrial and mining enterprises and other fields. It is especially suitable for places with dense wiring, transformers connected to the wall for core current testing, thick wire cable testing, relay protection, thyristor rectification, variable frequency speed regulation, semiconductor switches, power electronic conversion equipment, arc welding and other serious signal distortion. Current testing in industrial environments.

The flexible current sensor, namely Rogowski Coil (Rogowski Coil), adopts advanced Rogowski Coil (or Rogowski Coil) technology. It is a toroidal coil uniformly wound on a non-ferromagnetic material, with no hysteresis effect and no magnetic saturation phenomenon. High linearity and strong anti-interference ability. The output signal is the differential of current to time. By integrating the output voltage signal, the input current can be truly restored, and the measurement current range can be from milliamps to tens of thousands of amperes. There is no exposed metal conductor in the coil part of the flexible current clamp, non-contact measurement, safe and fast; its small size, light weight, beautiful appearance, soft and flexible, suitable for narrow environments and places with dense wiring; high measurement accuracy, strong reliability, Response frequency bandwidth, users can customize the coil length according to their needs.

The instrument also has functions such as AC and DC current and voltage testing, higher than set value alarm, data retention, data storage, etc. It is easy to use and is an essential tool for electrical safety testing.

- ★ New design, high-end appearance, luxurious black screen.
- ★ 1mA resolution, accurate leakage current measurement.
- ★ Can replace the traditional bulky large-caliber pliers, convenient and accurate, flexible caliber configuration.
- ★ AC voltage: 0~750V DC voltage: 0.0V~1000V
- ★ 500 sets of data storage

II. Model Specification

Model	FR1050A	FR1050	FR1050E
Coil length	470mm	470mm	950mm
Coil inner diameter	φ 150mm	φ 150mm	φ 300mm
Current range	0A-10000A	0mA-10000A	0mA-10000A
Current resolution	0.1A	1mA	1mA

III. Technical Specification

Features	Current test, leakage current test
Current accuracy	Accuracy $\pm 2\% \pm 5\text{dgt}$ (the wire is at the center of the flexible coil, $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$)
AC voltage	0.0V~750V AC Accuracy $\pm 1.5\% \text{rdg} \pm 3\text{dgt}$
AC Voltage Resolution	0.1V
DC voltage range	0.0V~1000V DC Accuracy $\pm 1.5\% \text{rdg} \pm 5\text{dgt}$
DC voltage resolution	0.1V
Sample rate	2 times/sec
Powered by	DC4.5V AA alkaline battery (1.5V AAA×3)
Backlight	Have
Test method	flexible CT
Meter size	Host size: width, thickness and height 151*100*35mm (without coil)
LCD size	45mm×28mm
Coil thickness	Φ8mm (suitable for narrow environments and places with dense wiring, etc.)
The total mass of the instrument	220g (φ150mm diameter including battery)
Overflow display	Overrange overflow function: "OL" symbol display
Data storage	500 groups
Data full	Data full function: "FULL" symbol display
Battery voltage	The battery voltage is displayed in 4 grids. When the battery symbol is empty, the battery is less than 3.15V.
Insulation resistance	Greater than 100M (1kV)
Working temperature and humidity	$-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$ Below 70%rh
Storage temperature and humidity	$-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$ Below 80%rh
Suitable for safety regulations	IEC1010-1, IEC1010-2-032, pollution degree 2, CAT III (600V) IEC61326 (EMC standard)

IV. Packing LIST

Meter	1 set
Test lead	1 set (one red and one black)

Instrument package	1
Detector battery	3 AA alkaline AAA batteries
Manual, Warranty	1 set

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