

multicomp PRO



Current Probe
MP770291

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1. Overview

The MP770291 clamp is a current probe for oscilloscope which uses a Hall effect cell for the measurement of DC or AC current without modification of the installation (without switching off the circuit)

It can measure currents from 50 mA to 100 A peak.

It has 2 ranges and 2 lights indication:

- “ON”, correct power supply to the clamp.
- “OL”, overload of the range in use (saturation or peak).

In addition, a thumbwheel can be used to reset zero for adaptation to the measurement environment.

This clamp adapts to any measurement instruments which have a BNC input and an impedance of $1M\Omega$, $< 100pF$.

2. Specification

Range	100mV/A	10mV/A
Current range	50mA-10Apeak	10A-100Apeak
Error (Accuracy)	2%±2mV	
Bandwidth (-3dB)	DC~100kHz	
Phase shift	DC~65Hz: $<1.5^\circ$	DC~65Hz: $<1^\circ$
Load Impedance	$\geq 1M\Omega$ 和 $\leq 100pF$	
Insert impedance	0. 01 Ω	
Noise	3mV	480 μ V
Slew Rat	0.3V/ μ s	20mV/ μ s
Rise/fall time	3 μ s	$<4\mu$ s
Measurement Conditions	23 $^\circ$ C \pm 5 $^\circ$ C ,20~75%RH, Sinusoidal frequency :48~65Hz, External magnetic field $<40A/m$, no load flow, the center of the test sample, load impedance:1M Ω	
Battery	9V Alkaline battery (meet up with: NEDA 1604A, IEC 6LR61)	
Low battery indicator	$>6.5V$, LED is green	
Overload indicator	Red LED means the measure current is too big and it need to change the measuring range	
Max. insert	10.3mm Diameter	
Dimension	231×36×67mm	
Weight	330g (include battery)	
Output	2 meters coaxial cable, terminal with insulation BNC connector jack	

3. Operating environment

- 1). Operating. Temp: 0~+50°C
- 2). Storage. Temp: -3~+80°C
- 3). Operation relative humidity:
+10°C~+30°C: 85±5% relative humidity (non-condensing):
+40°C~+50°C: 45±5% relative humidity (non-condensing) 4).
- Operating height: 0~2000m

4. Operation

- 1). To make a current measurement, switch on the clamp by selecting the 100mV/A range. Check that the battery indicator (green) is lit and that the <>indicator is not lit.
- 2). Connect the clamp to the oscilloscope. With the clamp closed and without clamping a conductor, select the highest sensitivity (for example 1mV/cm) on the oscilloscope and 100mV/A on the clamp, then set zero on the clamp with the thumbwheel in relation to a reference chosen on the oscilloscope. Zero on the oscilloscope makes it possible to adjust this setting.
- 3). Select the measurement sensitivities of the clamp and the oscilloscope.
- 4). Choose the connection method which is the best adapted to measurement on the oscilloscope
- 5). Note the direction of the primary current by means of the arrow marked on and under the case.
- 6). Insert the conductor carrying the current to be measured in the clamp and take the measurement.
- 7). If necessary, re-check the origin of the graph, with the jaws not clamped around the conductor, and make the measurement again.

5. Maintenance



For maintenance, please kindly contact the reseller or manufacturer.

- **Jaw faces:** It is necessary to always keep the jaw faces clean. Clean them and lightly oil them to prevent corrosion. Do not leave the clamp in very damp places, or directly exposed to water.
- **Handles and case:** Clean with a damp cloth or a sponge, then dry with a cloth or blow dry with warm air.
- To maintain the performance of the clamp, it is advisable to carry out a check or re-calibration every year.

INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used. Contact your local authority for details of recycling schemes in your area.



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