

AC/DC Clamp-on Adaptors User Manual



Introduction

The AC/DC A Current Clamp is a transducer which will allow your multimeter to measure electrical or/and electronic current up to 1000 amperes AC/DC, with a frequency response to 50/60/1-1z. When measuring current with this clamp, there is no need to break a circuit or to affect the isolation. When measuring DC current, a simple operating knob is designed for zero adjustment.

Application Procedures

1. Insert the black banana plug into the COM jack and the red banana plug into the V jack of any multimeter with a minimum input impedance of 10k ohms.(OUTPUT and V jack link)
2. Set the power switch from "OFF" to the desired range, 600A (output 1mV/A) or 1000A (0.1mV/A) position. The green LED will light to indicate that the clamp is switched on.
3. For current measurement below 600A, set the unit to 600A range and set the multimeter to 400mV or 600mV AC range for AC current measurements, or 400mV or 600mV DC range for DC current 4. When perform DC current measurement, always turn the zero adjustment knob on the clamp until the multimeter reads zero.
5. Clamp the jaws around the current-carrying conductor and interpret the reading according to Step 3 above.
6. When 600A range of clamp unit is selected, the measured current value in A. For example, if the multimeter reads 100mV, the measured current is $100\text{mV} (1\text{mV/A}) = 100\text{A}$. When 1000A range is selected, the measured current value in A. For example, if the multimeter reads 100mV, the measured current is $100\text{mV} (0.1\text{mV/A}) = 1000\text{A}$.

Application Notes

1. In the case of DC current, the output is positive when the current flows from the upside to the underside of the clamp. The red banana plug and is positive(OUTPUT aperture).
2. In the case of DC current measurement, a hysteresis effect can occur so that it is impossible to zero the clamp properly. To eliminate this effect, open and close the jaws several times and turn zero adjustment knob.

Operator Safety

1. Do not clamp around conductors with voltages equal to or exceeding 300V DC or 240V rms AC.
2. To avoid physical injury, measurements on bare conductors or conductors with cracked or frayed insulator are forbidden.

Specifications

General

Captured Conductor Size: 30mm maximum diameter

Low Battery Indicator: red LED lighting Operating Temperature: 0°C to 50°C, 70% R.H.

Storage Temperature: 20°C to +70°C, 80% R.H.

Battery Type: 9V DC NEDA 1604, 6F22, 006P

Battery Life: 80 hours typical with alkaline **Weight:** 260g typical

Dimensions: 229 x 80 x 49mm (9.0 x 3.1 x 2.0") Electrical (At 23±5°C, 70% R.H. Maximum)

Effective Measurement Range

600A (output: 1 mV/A): DC or rms AC for 400mV or 600mV range of the multimeter.

1000A (output: 0.1 mV/A): DC or rms AC for 600mV range of the multimeter.

Accuracy

Current Clamp Accuracy:

DCA range:	600A
0-600.0ADC:	± (2.5% + 0.6A)
DC range: 0-	1000A
1000ADC:	± (2.8% + 6A)
ACA range:	600A(50/60Hz)
0-600.0AAC:	± (2.5% + 0.6A)
ACA range:	1000A(50/60Hz)
0-1000AAC:	± (2.8% + 8A)

Safety Information

The instrument complies with class II, overvoltage CAT II - 600V of the EN 61010-1, and EN 61010-2-032 standards. Pollution degree 2 in accordance with IEC 664 indoor use. If the equipment is used in a manner not specified, the protection provided by the equipment may be impaired.