AC/DC CURRENT CLAMP OPERATOR'S MANUAL

INTRODUCTION

The AC/DC Current Clamp is an accessory which will allow your multimeter to measure electrical current up to 600 amperes DC/AC, with a frequency response up to 400Hz. When measuring current with this clamp, there is no need to break a circuit or to affect the isolation.

APPLICATION PROCEDURE

1. Insert the black banana plug into the COM jack and the red banana plug into the V-Ω jack of any multimeter with a minimum input impedance of 10k ohms.
2. Set the power switch from "Off" to "On" position, the green LED will be lighting to indicate that the clamp is switched on. For current measurement below 200 amperes, set the multimeter range to 200mVAC for AC current measurements or 200mVDC for DC current measurements. The reading is directly in amperes. For current measurements above 200 amperes, set the multimeter range to 2V AC or DC, depending on whether measuring AC or DC current. The reading is now amperes x1000.
3. Turn the zero adjustment knob on the clamp until the multimeter reads zero.
4. Clamp the jaws around the current-carrying conductor and interpret the reading according to Step 2 above.

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 is positive.
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 then zero again.

3. When there is a strong stray magnetic field, it is best to zero the clamp approximately 2 to 4 inches from the conductor to be measured. The conductor itself will have no influence at this distance. Then clamp the jaws around the conductor and measure the current.
4. A good practice for measuring low currents is to loop an appropriate number of turns of the conductor through the jaws. The actual current is the measured value divided by the number of turns.

BATTERY REPLACEMENT

Remove the screw on the back side, remove the battery, and replace with a 9-volt battery, NEDA 1604 Type.

SPECIFICATIONS

GENERAL

Captured Conductor Size: 30 mm maximum.
Low Battery Indicator: Red LED lighting.
Operating Temperature: 0°C to 50°C, 70% R.H.
Storage Temperature: -20°C +70°C, 80% R.H.
Weight: 290 gm typical
Dimensions: 178mm (H) × 70mm (W) × 33mm (D).

ELECTRICAL (At 23 ±5°C, 70% R.H. maximum)
Accuracy:
DC Current
0 to 600A, ±(2% reading + 2A)
AC Current (50Hz to 400Hz)
0 to 400A, ±(2% reading + 2A)
400A to 500A, ±(3% reading + 2A)
500A to 600A, ±(6% reading + 2A)
Load Resistance: 10kΩ Typical.
Rate Output: 0 to 600mV (AC and DC) for 0 to 600A.
Battery Life: 100 hours typical with carbon-zinc.

P/N: 7000-1351A

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