

TA015 DCA/ACA CURRENT CLAMP OPERATOR'S MANUAL

ELECTRICAL (At $23 \pm 5^\circ\text{C}$, 70% R.H. maximum)

Range: 0 ~ 1500A AC or 0 ~ 2000A DC max.

Output: 0 ~ 1.5V rms or 0 ~ 2V DC with $\geq 1\text{Meg}$ ohms input impedance.

Transfer Rate: 1mV/1A.

Accuracy

System Accuracy: Current clamp accuracy+DMM accuracy.

Current Clamp Accuracy

DC current:

0 ~ 400A $\pm(1.5\% + 2\text{A})$

400A ~ 800A $\pm(2.5\% + 2\text{A})$

800A ~ 1000A $\pm(3.5\% + 3\text{A})$

1000A ~ 2000A $\pm(5.0\% + 5\text{A})$

AC current:

0 ~ 400A 50Hz ~ 60Hz $\pm(1.5\% + 2\text{A})$

0 ~ 400A 61Hz ~ 400Hz $\pm(3.0\% + 2\text{A})$

400A ~ 1000A 50Hz ~ 60Hz $\pm(2.0\% + 3\text{A})$

400A ~ 1000A 61Hz ~ 400Hz $\pm(3.5\% + 3\text{A})$

1000A ~ 1500A 50Hz ~ 400Hz $\pm(5.0\% + 5\text{A})$

Overload Protection: 2000A for 60 seconds maximum.

BATTERY REPLACEMENT

Remove the screw on the back side, open the case and remove the battery from the battery room, and replace with a 9-volt battery, NEDA 1604 type.

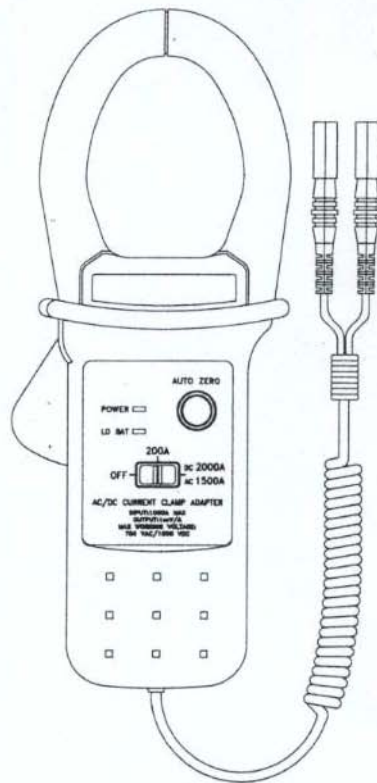
SAFETY INFORMATION

The instrument complies with class II, \square CAT II 1000V of the EN 61010-1, and EN 61010-2-032 standards. Pollution degree 2 in accordance with IEC 664 indoor use.



This product complies with the requirements of the following European Community Directives: 89/336/EEC(Electromagnetic Compatibility) and 73/23/EEC(Low voltage) as amended by 93/68/EEC(CE marking)

P/N: 7000-1501



INTRODUCTION

The Model CA2000D DCA/ACA Current Clamp is a transducer which will allow your multimeter to measure electrical current up to 1500 amperes ACA or 2000 amperes DCA, 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.

The clamp is built with a design of finger guard which ensures user operating the clamp under a safety situation, with a rugged case that is shock resistant and fire-retardant.

APPLICATION PROCEDURES

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 1Meg ohms.
2. Set the power switch from "OFF" to the desired range, 200A or 2000A position. The green LED will light to indicate that the clamp is switched on.
3. For current measurement below 200 amperes, set the unit to 200A range and set the multimeter to 200mV AC range for AC current measurements or 200mV DC for DC current measurements. The reading is directly in amperes.
4. For current measurement above 200 amperes, set the unit to 2000A position and set the multimeter range to 2V AC or DC, depending on whether measuring AC or DC current. The reading is now amperes x1000.
5. When perform DC current measurement, always push the zero adjustment button on the clamp until the multimeter reads zero.
6. Clamp the jaws around the current-carrying conductor and interpret the reading according to step 3 or 4 above.

APPLICATION NOTES

1. In the case of DC current, the output is positive when the current flows from the upside (marking "+" textured on the jaws) to the underside of the clamp. The red banana plug end 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 push zero adjustment button.
3. Measurements can not be made when more than one conductor is clamped.
4. The most accurate reading will be obtained by keeping the conductor across center of the clamp jaws.

OPERATOR SAFETY

1. Do not clamp around conductors with voltages equal to or exceeding 1000V DC or 750V AC rms.
2. This instrument probably measures a high current up to 2000A carried in a conductor where some level of high voltage may exist contemporaneously. Any incorrect operation could result in a hazard and/or lethal injury.
3. Use extreme caution when working around bare conductors or bus bars. Accidental contact with the conductor could result in electric shock. Some protective materials such as rubber shoes, rubber mats, or any approved insulating material, must be used to keep your body isolated from ground to ensure a safe operation.
4. Do not attempt to open the instrument case or repair the instrument when performing measurements.

SPECIFICATIONS

GENERAL

Jaws Opening Capability: 57mm conductor, 70 x 18 mm bus bars.

Operating Environment: 0°C to 50°C at < 70% R.H.

Storage Temperature: -20°C to 60°C, 0 to 80% R.H.

Temperature Coefficient: 0.1 x (specified accuracy) / 1°C (0°C to 18°C, 28°C to 50°C).

Altitude: 6561.7 feet (2000M).

Low Battery Indicator: Red LED lighting.

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

Battery life: 100 hours typical with alkaline.

Weight: Approx. 490g (including battery).

Size: 244mm (H) x 100mm (W) x 40mm (D).

Output: Coil cable with straight banana plug.