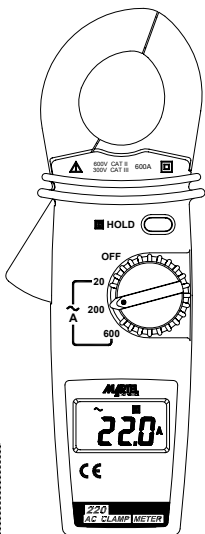


**MARTEL**  
ELECTRONICS

**220**

TEST **TOOLS**

CE



## Instruction Manual



**MINI CLAMP METER**

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## I. Safety Information

Do not operate the tester if the body of meter looks broken.

Check the main function dial and make sure it is at the correct position before each measurement.

Exercise extreme caution when measuring live systems with voltages greater than 60V DC or 30V AC.

Keep the fingers behind the protection ring when taking measurements.

Change the battery when the  symbol appears to avoid erroneous readings.

### **Environmental Conditions:**

Altitude up to 2000 meters.

Operating temperature:


0°C ~ 40°C, <80% RH, non-condensing


Storage temperature:


-10°C ~ 60°C, <70% RH, battery removed

Pollution Degree: 2

### **Explanation of Symbols:**

 Attention! Refer to operation instructions.

 This instrument has double insulation.

Approvals:  EN61010 600V CAT II 300V CAT III

## II. Specification

### General Specification:

#### Digital Display:


3 1/2 digits LCD display with maximum reading 1999

#### Over Load:

When the indication is larger than the 1999 counts, the LCD will show 1000 with blinking 1

**Sample Rate:** 2 times/sec

#### Low Power Indication:

When the battery must be replaced, the  symbol will appear on the LCD display.

**Power Source:** UM-4 or AAA 1.5V battery x 2.

**Clamp opening size:** 25mm

#### Dimension (L x W x H) :

187x50x29mm; 7.36x1.97x1.14 inch

**Weight:** 200g (including battery)

**Battery Life:** 1000 Hr. approx. (alkaline battery)

#### Accessories:

Instruction Manual, Carrying Case, Battery 1.5Vx2

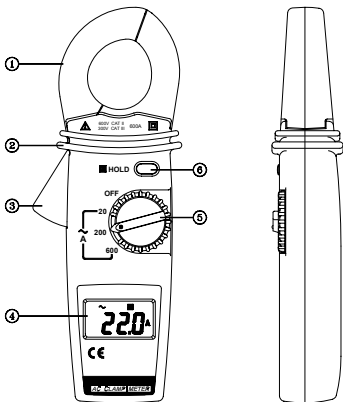
### Electrical Specification:

The accuracy specification is defined as  $\pm$  ( ...%reading + ...count ) At  $23 \pm 5^{\circ}\text{C}$ ,  $\leq 80$  %RH

#### ACA

Range	Resolution	Accuracy	Overload Protection
20A	0.01A	2%+5	200Arms
200A	0.1A		660Arms
600A	1A		

### III. Instrument Familiarization:



- ① Current Sensing Clamp
- ② Safety protection ring
- ③ Clamp opening handle
- ④ LCD display
- ⑤ Function select dial
- ⑥ Data Hold button

#### IV. AC Amp Measuring Instruction:

Switch the function selector to desire Ampere range.

Open the clamp by pressing the jaw-opening handle and insert the cable to be measured into the jaw.

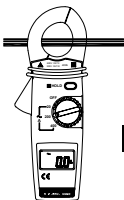
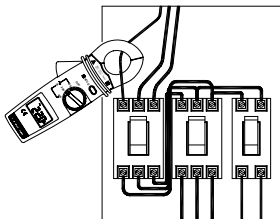
Close the clamp and get the reading from the LCD panel.

**Note:**

In locations where seeing the display is difficult, push the HOLD button to freeze the display to read the result later.




**CORRECT**



**INCORRECT**

## V. Battery Changing:

1. When the battery needs replacing, the  symbol will appear on the LCD display.
2. Before changing the battery, switch the function selector to "OFF" and disconnect the test leads. Open the back cover with a screwdriver. Replace the old batteries with two UM-4 or AAA size batteries.
3. Close the back cover and fasten the screw.

## VI. Maintenance:

### CAUTION

To avoid contamination or static damage, do not touch the circuit board without proper static protection.

### REMARKS

- \* If the meter is not going to be used for a long time, remove the batteries. Do not store the meter in high temperature or high humidity environments.
- \* When making current measurements, keep the cable at the center of the clamp for more accurate readings.

### CLEANING

Periodically wipe the case with a dry cloth. Do not use detergents, abrasives, or solvents on this instrument.

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