

CENTER[®] 24

TRMS FLEXIBLE CURRENT METER



Instruction Manual



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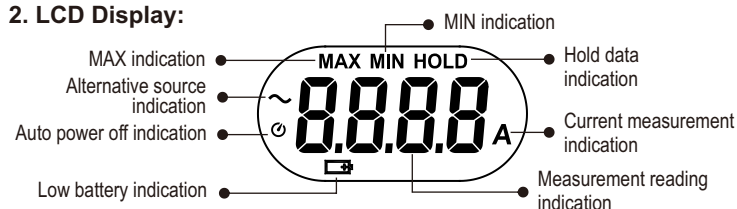
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2. LCD Display:



⚠ Safety Information

Read first, to ensure safe operating and service of this current clamp, follow these instructions:

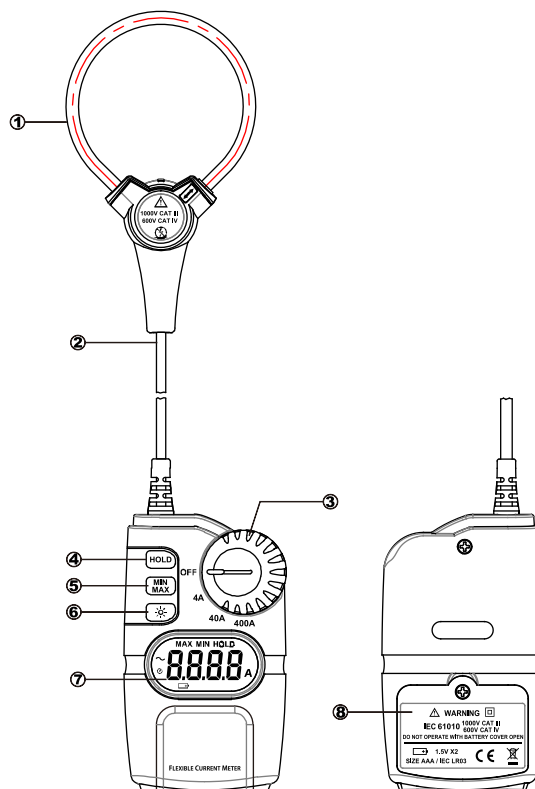
- Read the operating instructions and follow all safety instructions before using this instrument.
- Do not operate the tester if the body of meter or the current probe looks broken.
- Check the main function dial and make sure it is at the correct position before each measurement.
- Always de-energize the circuit under test before installing flexible probe measuring head. Always inspect the electronics unit, connecting cable, and flexible probe for damage before using this product.
- Exercise extreme caution when measuring live system with voltage greater than 60V DC or 30V AC.
- To avoid false readings, replace the battery as soon as possible, when "⚡" symbol appears.
- Always wear protective clothing and gloves if hazardous live parts are present in the installation where the measurement is carried out.
- Never use the probe on a circuit with voltages higher than 600 V CATIII. CATIII equipment is designed to protect against transients in equipment in fixed equipment installations, such as distribution panels, feeders and short branch circuits, and lighting systems in large buildings.

Environmental Conditions:

- Altitude up to 2000 meters.
- Operating temperature/humidity: 0°C~50°C, <80% RH, non-condensing

Symbol Definition & Button Location

1. Name of Parts & Position:



- | | | |
|--------------------------|--------------------|-----------------------------|
| ① Flexible current probe | ④ Data hold button | ⑦ LCD display |
| ② Probe coupling | ⑤ MIN/MAX button | ⑧ Battery compartment cover |
| ③ Range switch | ⑥ Backlight button | |

- Storage temperature/humidity: -10°C ~ 60°C, <70% RH, battery removed
- Pollution Degree: 2

Explanation of Symbols:

- ⚠ Attention! Refer to operation instructions.
- ⚡ Do not apply around or remove from HAZARDOUS LIVE conductors.
- ⊠ Product is protected by double insulation.
- CE Conforms to relevant European standards

Approvals: CE EN61010 1000V CAT III / 600V CAT IV

Maintenance

⚠ WARNING & CAUTION!

- Before opening the battery door, disconnect flexible current probe and never use the meter if the battery door is open.
- Always inspect the unit, connecting cable, and flexible probe for damage before use.
- To avoid electric shock, keep the clean and free of surface contamination.
- Make sure the flexible probe, connecting cable, and electronics enclosure are dry before further use.
- To avoid contamination or static damage, do not touch the circuit board without proper static protection.

REMARK:

If the meter is not going to be used for a long time, take out the battery and do not store the meter in high temperature or high humidity environment. When taking current measurement, keep the cable at the center of the clamp to get more accurate test result. Repairs or servicing not covered in this manual should be performed only by qualified person.

CLEANING:

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

Specifications


● GENERAL SPECIFICATION:

Digital Display: 4 digits LCD display with maximum reading 4200

Over Load: When the signal larger than the maximum will be shown **-OL-**


Sample Rate: 2 times/sec

Low Power Indication:


When the battery is below the proper operation range,  will appear on the LCD display.

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

Auto Power Off:

If there is no key or dial operation for 15 minutes, the meter will automatically power off to save battery consumption. The  symbol indicates the function is enabled.

Disable-Auto Power Off:

To disable the function, press the "Hold" button and keep it pressed while powering on the meter. The  indicator will not be displayed.

Dimension (Meter): 120mm(L)x70mm(W)x26 mm(H); 4.7"(L)x2.8"(W)x1"(H)

Probe Cable Length(s): 203mm (8")

Probe Cable Diameter: 5.5mm (nominal)

Cable Length (Probe to Meter): 1.5m (5 ft)

Weight: Approx.196g (include battery)

● ELECTRICAL SPECIFICATION:

(At 23±5°C, ≤80 %RH, conductor located at the center of the flexible loop)

Measuring Ranges: 4A/40A/400A

Resolution: 0.001A/0.01A/0.1A

Accuracy (45-500Hz): ±3% ±5digits

Position Sensitivity: Refer to Figure 1.

Power Supply: UM-4 or AAA 1.5V battery x2

Battery Life: Approx.120Hours(alkaline battery)

Temperature Coefficients:

Add 0.1 x specified accuracy for each degree C above 28°C or below 18°C

Measuring Instruction



Always use appropriate equipment for personal protection. Do not use the flexible current probe to measure bare conductors unless wearing protective clothing and gloves suitable for high voltage work.

- To activate unit, move the rotary switch from the "off" position to the required measuring range.
- Select the desired range. If the value of current being measured is unknown, first select the highest range and then reduce accordingly.
- Connect the flexible probe around the conductor (See Figure 2.)
- Center the conductor perpendicularly inside the flexible probe area.
- Observe the current value on the LCD.

Figure 2. Connecting the flexible probe around the conductor

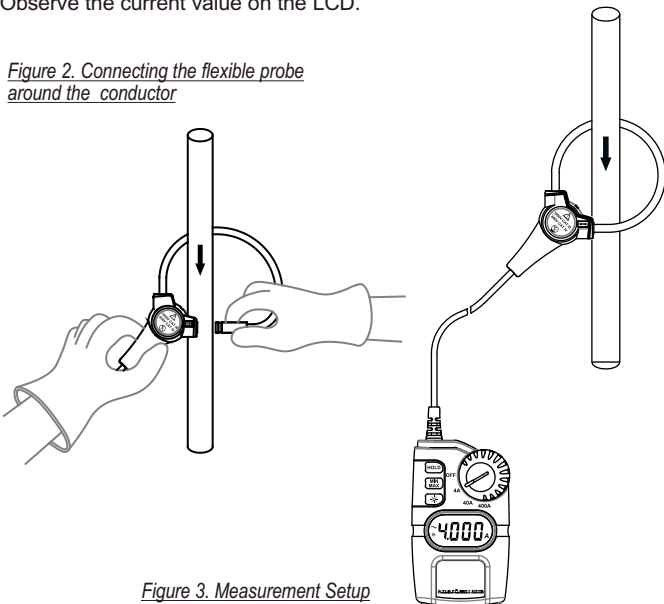


Figure 3. Measurement Setup

Position Sensitivity

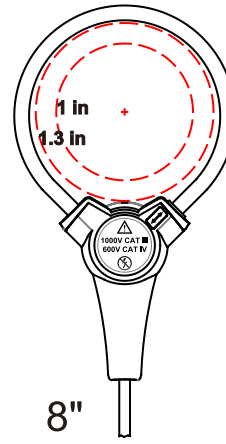


Figure 1.


| 8" Flexible Current Probe | Distance from optimum | |
|------------------------------|-----------------------|-------|
| | 1 in | Error |
| | 1.3 in | ± 2% |


Note:

Measurement uncertainty assumes centralized primary conductor at optimum position, no external electrical or magnetic field, and within operating temperature range.

Button Instruction

● Back Light Button:

Press the  button to turn on back-light.

Press the  button again to turn off back-light. The back-light will also be turned off automatically after 30 seconds to extend battery life.

● Hold Button:


Press the **HOLD** button to hold data.

Press the **HOLD** button again to release held data.

● MAX/MIN Button:

Press the **MAX/MIN** button to enter the Max/Min mode. Press the **MAX/MIN** button, to read Max, Min, and current reading in sequence. Press the **MAX/MIN** button for 2 seconds, to exit the Max/Min mode.

Replacing Battery

1. When the battery voltage drops below proper operation range the " " symbol will appear on the LCD display and the battery needs to be replaced.
2. Remove the flexible current probe from any measuring object.
3. Switch the main dial to "OFF".
4. Open the battery door with a screwdriver.
5. Replace the old batteries with two new 1.5V (AAA Size) batteries.
6. Close the battery door and fasten the screw.

