

Leakage Current Clamp Meter***Instruction Sheet******Safety Information*****⚠ ⚠ Read First: Safety Information**

To avoid shock or personal injury, ensure safe operation and service of the Leakage Current Clamp Meter (“Clamp Meter”), follow these instructions:

- Read the operating instructions before use and follow all safety instructions.
- Use the Clamp Meter only as specified in the operating instructions otherwise the instrument’s safety features may not protect you.
- Adhere to local and national safety codes. Individual protective equipment must be used to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Before each use, inspect the Clamp Meter. Look for cracks or missing portions of the clamp housing. Also look for loose or weakened components. Pay particular attention to the insulation surrounding the jaws.
- Disconnect the Clamp Meter from measurable conductors under test before opening the case to replace the battery.
- Avoid using the instrument if it has been exposed to rain or moisture or if your hands are wet.
- Do not use the instrument in an atmosphere where flammable or explosive gas is present.
- Do not use the Clamp Meter near noise-emitting equipment or where there may be sudden changes in temperature. Otherwise the Clamp Meter may produce unstable readings or errors.
- Never use the Clamp Meter on a circuit with voltages greater than 300 V CAT III.

CAT III 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.

- Use extreme caution when working around bare conductors or bus bars. Contact with the conductor could result in electric shock.
- Use caution when working with voltages above 60 V dc or 30 V ac. Such voltages pose a shock hazard.
- Do not leave the Clamp Meter exposed to direct sunlight or in a hot or humid location for any prolonged period of time.
- Keep fingers behind the tactile barrier. See Figure 1.

Symbols

Table 1. Symbols

| Symbol | Explanation |
|---|---|
|  | Product is protected by double insulation. |
|  | Risk of Danger. Important information. See Instruction Sheet. |
|  | Hazardous voltage |
|  | Alternating Current |
|  | Direct Current |
|  | Earth |
|  | May be used on hazardous live conductors |
|  | Do not dispose of this product as unsorted municipal waste. Contact Fluke or a qualified recycler for disposal. |
|  | Conforms to relevant European Union directives |
|  | Battery |

Components

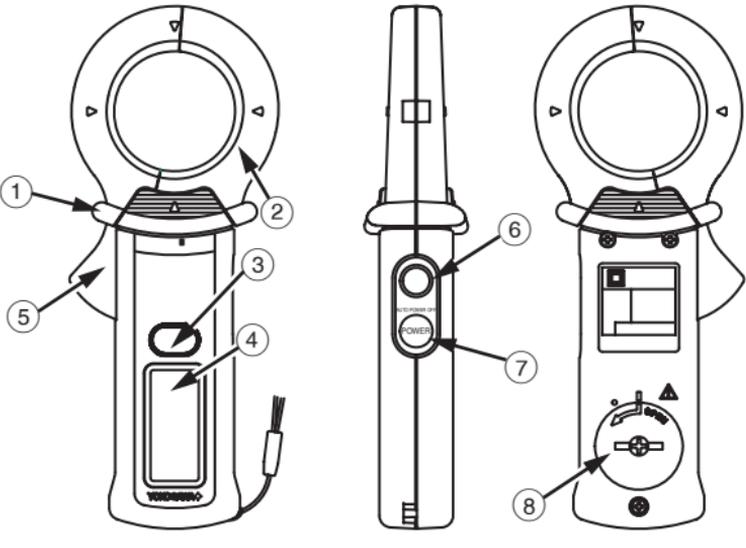
|  | |
|---|---|
| epq001.eps | |
| Item | Explanation |
| ① | Place fingers behind the Tactile Barrier |
| ② | The Jaw is a precision sensor for detecting current |
| ③ | Use the mA/A Selector Switch to choose the range of ac current (either mA or A) to be measured |
| ④ | The Display shows the measured value (digital reading or bargraph), unit, function, and low-battery symbol |
| ⑤ | Open and close the jaw with the Open/Close Lever |
| ⑥ | The Data Hold Switch retains the measured data on the display. If pressed, D•H appears and the data is retained. If pressed again, data hold is canceled and D•H disappears. |
| ⑦ | Press the Power Button to turn on Clamp Meter power |
| ⑧ | Battery Housing holds the battery |

Figure 1. The 360 Clamp Meter

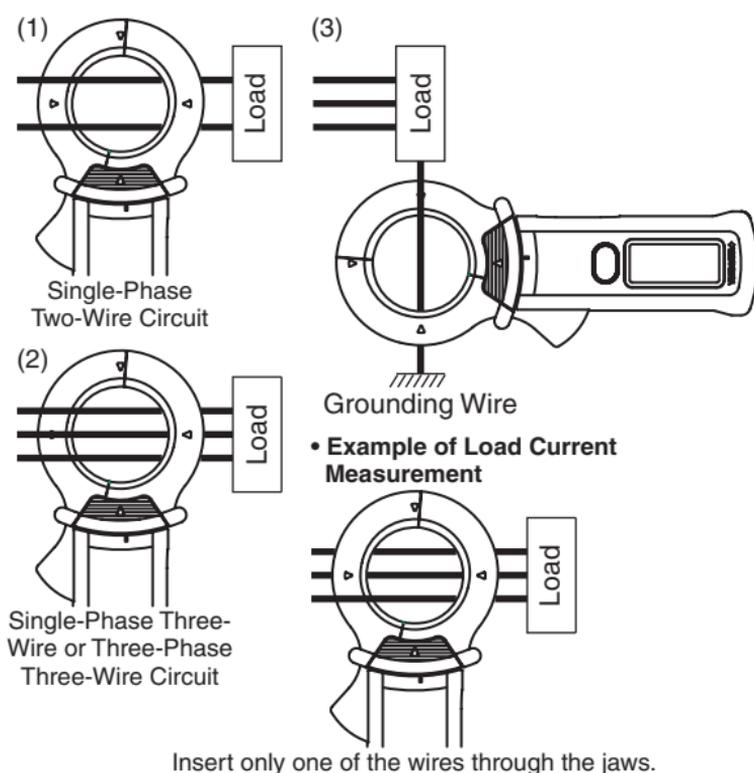
Measuring Instructions

⚠ Caution

Do not subject the jaw to unreasonably strong shock, vibration, or force.

If dust gets into the top of the jaws, remove it immediately. Do not close the jaws when dust is trapped in its joints as the sensor may be damaged.

1. Turn the Clamp Meter on by pressing the power button.
2. Open the jaws and insert the conductor under test through the jaws, making sure the tops of the jaws are tightly shut.
3. Once the reading stabilizes, read the value. Use the DATA HOLD function if the reading is difficult to read.
4. Make sure the jaws are perpendicular to the conductor.
5. For optimal readings, make sure the conductor is positioned between the alignment marks on the jaws of the Clamp Meter. Refer to Figure 2.



epq002.eps

Figure 2. Measurements

Auto Power Off

The instrument automatically turns off 10 minutes after the last switch operation. A beeper sounds 15 seconds before the automatic power off.

Maintenance

If the Clamp Meter does not work or perform properly, use the following steps to help isolate the problem:

1. Inspect the jaw mating surface for cleanliness. If any foreign material is present, the jaw will not close properly and measurement errors will result.
2. Verify that the range on the Clamp Meter is correct.

Cleaning

Periodically wipe the case with a damp cloth and mild detergent.

⚠ Caution

To avoid damaging the Clamp Meter, do not use abrasives or solvents to clean the clamp.

Open the jaws and blow air to remove dust or debris at the jaw mating surfaces.

Battery Replacement

If battery voltage drops below the operating voltage, the battery symbol () appears on the display. If this happens, replace the battery as soon as possible.

Warning

There is risk of electric shock during battery replacement. Always remove the Clamp Meter from measurable conductors under test before replacing the battery.

Always use the correct replacement battery.

To replace the battery, see Figure 3:

1. Make sure the power is off.
2. Place the Clamp Meter on its face and turn the battery cover counter clockwise using a Phillips screwdriver.
3. Remove the cover and the installed battery.
4. Replace the battery, making sure that the polarity is correct.
5. Reinstall the battery cover, turn it clockwise and reinstall the screw.

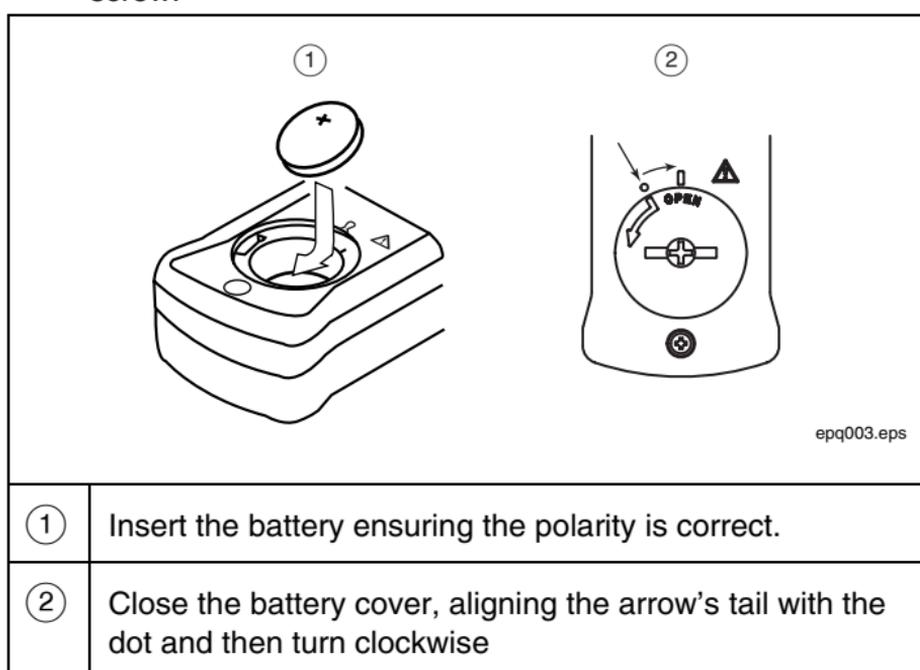


Figure 3. Changing the Battery

General Specifications

| | |
|--|--|
| Measurement functions | AC current |
| Additional functions | Data hold and Auto power-off |
| Display (LCD) | Digital reading : 3200 counts Bar Graph: 32 segments “OL” over-range indication Low-battery symbol |
| Range Selection | Automatic |
| Sampling | Digital reading: 2 times/sec Bar graph: 12 times/sec |
| Operating temperature and humidity range | 0 to 50 °C, with a maximum humidity of 80 % RH (no condensation) |
| Storage temperature and humidity range | -20 to 60 °C, with humidity range 20 to 70 % RH (no condensation) |
| Temperature Coefficient | ± 0.05 % of measuring range/°C (< 18 °C or > 28 °C). Measuring range: 0 to 50 A 0.0005 % typical value (in terms |

| | |
|---|--|
| Effect of external magnetic fields | of the magnitude of current in adjacent wires) |
| Maximum conductor Size | 40 mm |
| Maximum circuit voltage | 300 V rms |
| Power Consumption | 6 mW maximum |
| Automatic Power off | Automatically turns off the power approximately 10 minutes after the last switch operation. The beeper will turn on 15 seconds before power off. |
| Power Supply | CR2032 lithium battery |
| Battery Life | Approximately 90 hours of continuous operation |
| Dimensions | 70 mm (W) x 176 mm (H) x 25 mm (D) |
| Weight | Approximately 200 g (including battery) |

Safety Specifications

Category Rating

CAT III 300 V per IEC/EN61010-1, and 61010-2-032 Pollution Degree 2, indoor use

EMC

EN61326-1

Effect of Radiated Immunity

Rated accuracy +4.0 % in an electromagnetic field of 3 v/m.

Operating Altitude

2000 m

Accessories

C75 soft carrying case

Electrical Specifications

Reference Conditions: 23 ± 5 °C and 80 % RH maximum

Accuracy: ±(percent of reading + digit)

AC Current Measurement

| Range | Resolution | Accuracy (50/60 Hz) | Maximum Allowable Current |
|-------|------------|---------------------|---------------------------|
| 3 mA | 0.001 mA | 1% + 5 | 60 A rms |
| 30 mA | 0.01 mA | | |
| 30 A | 0.01 A | 0 to 50 A: 1 % + 5 | |
| 60 A | 0.1 A | 50 to 60 A: 5 % + 5 | |

Zero correction: Fractions smaller than approximately 0.01 mA are calibrated to zero.

Contacting Fluke

To contact Fluke, call one of the following telephone numbers:

USA: 1-888-44-FLUKE (1-888-443-5853)

Canada: 1-800-36-FLUKE (1-800-363-5853)

Europe: +31 402-675-200

Japan: +81-3-3434-0181

Singapore: +65-738-5655

Anywhere in the world: +1-425-446-5500

USA Service: 1-888-99-FLUKE (1-888-993-5853)

Or, visit Fluke's Web site at www.fluke.com.

To register your product, visit register.fluke.com

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

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