Operating Instruction for Milliamp Process Clamp Meter

Please read this manual before switching the unit on.
Important safety information inside.

Content Page

1.Introduction..... 4
2.Features 4
3.Safety Information and Symbols..... 4
3-1.To ensure safe operation and service of the Meter, follow these instructions..... 4
3-2.The symbols that are used on the Meter or in this instruction sheet..... 5
4.Milliamp Process Clamp Meter Description..... 6
5.Operation..... 7
5-1.Percentage Span..... 7
5-2.Zero Adjust..... 7
5-3.Backlight..... 7
5-4.Measurement Spotlight LED..... 7
5-5.Display HOLD..... 7
5-6.Auto Off..... 8
5-7.Taking Measurements..... 8
6.Maintenance..... 9
7.Cleaning the Meter..... 9
8.Battery Replacement..... 9
9.The Meter comes with..... 9
10.Specifications..... 10

1.Introduction

The Milliamp Process Clamp Meter is a hand-held battery-operated clamp meter that measures 4-20 mA dc without breaking the electrical circuit. Unlike conventional clamp meters, the Meter features a remote jaw that is connected to the main body via extension cable.

2.Features

- DC mA measurement (4-20mA) using a remotely connected clamp via extension cable
- Electronic zero
- Percentage span (0-100%)
- Hold
- Display backlight
- Auto power off
- Measurement spotlight LED

3.Safety Information and Symbols

3-1. To ensure safe operation and service of the Meter, follow these instructions

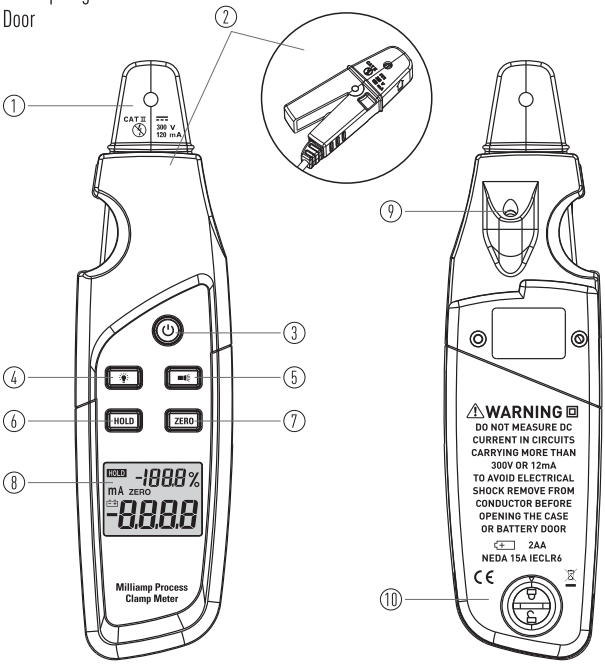
- Read the Instruction Sheet before use and follow all safety instructions.
- Use the Meter only as specified in the Instruction Sheet; otherwise, the Meter's safety features may be impaired.
- Before each use inspect meter and cable for damage. Look for cracks and missing portions of the clamp and cable. Do not use if clamp is damaged.
- Use caution when working with voltages above 33V rms 47V peak or 70V dc these voltages pose a shock hazard.
- Do not use to measure ac current.
- Do not use to measure dc mA in circuits carrying more than 300V CAT II.
- Avoid working alone so assistance can be rendered in an emergency.
- Use extreme caution when working around bare conductors or bus bars. Contact with the conductor could result in electric shock.
- To avoid false readings that can lead to electrical shock and injury, replace the batteries as soon as the low battery indicator appears.
- 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.
- When measuring, keep fingers behind the Tactile Barrier.
- Not to be used on non-insulated conductors.

3-2. The symbols that are used on the Meter or in this instruction sheet.

	Do not apply around, or remove from HAZARDOUS LIVE conductors
	Risk of danger. Important information.
	Risk of Electrical Shock
	Equipment protected by double or reinforced insulation
	Battery
	DC (Direct Current)
	Conforms to relevant European Union directives
	Do not dispose of this product as unsorted municipal waste.
CAT II 300V	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.

4.Milliamp Process Clamp Meter Description

1-Detachable Clamp
2-Tactile Barrier Docked and Un-Docked
3-Turns the Meter On and Off
When the meter is in sleep mode, press this button to wake it up.
4-Turns the Backlight Off and On
5-Measurement Spotlight LED Button
6-Captures and Holds the Current Reading
7-Removes Interference and Zeros the Display
8-LCD
9-Measurement Spotlight LED
10-Battery Door



5.Operation

5-1.Percentage Span

The Percentage Span feature displays the span for 4 to 20 mA loops.

Electric Current	Percentage Span
2mA	-12.5%
3.2mA	-5.0%
3.6mA	-2.5%
4mA	0%
8mA	25%
12mA	50%
16mA	75%
20mA	100%

5-2.Zero Adjust

- Before taking each measurement, push **ZERO** to zero the display by removing dc offset.
- Make sure the clamp jaws are closed and no current is flowing through them.

5-3.Backlight

- Press ☼ to turn the backlight on and off. The backlight automatically turns off after 30 seconds.
- To disable the automatic 30-second backlight timeout, hold down ☼ while turning the Meter on.

5-4.Measurement Spotlight LED

- The Measurement Spotlight LED helps to quickly find mA signal wires.
- To activate it, press ◄. To extend battery life, the light automatically turns off after 2 minutes.
- To disable the automatic timeout, hold down ◄ while turning the Meter on.

5-5.Display HOLD

- Pressing **HOLD** activates Display Hold mode. **HOLD** displayed and the Meter freezes the display.
- To exit and return to normal operation, press **HOLD** a second time.

⚠ To avoid electric shock, when Display HOLD is activated, the display will not change when a different current is applied.

5-6.Auto Off

- The Meter automatically turns off after 10 minutes of inactivity.
- If the Meter has automatically shut down, restart it by pushing ⏻ ("WAKE UP").

5-7.Taking Measurements

⚠ The Clamp Meter is not for use on non-insulated conductors.

Measurements can be taken with the clamp in the docked position, or remotely via the 1 m cable.

For accurate measurements:

- Always zero the Meter prior to taking measurements.
- Zero the Meter as close to the measurement source as possible.
- Make sure the clamp is free of contamination.

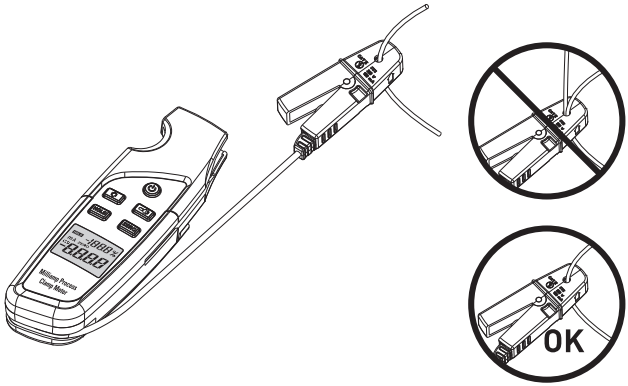
Note: To reduce magnetic influences, zero the Meter in the same position or jaw direction that is used for the measurements.

1.With the clamp disconnected from any conductor, press ⏻ to turn the Meter on and press **ZERO**.

2.Clamp the jaw around the conductor under test. The Meter displays the measured conductor current.

- A positive reading indicates current flowing in the direction of the arrow on the clamp.
- A negative reading indicates current flowing in the opposite direction of the arrow.
- Do not clamp more than one wire. Currents cancel and no results are returned.

The small secondary display shows the reading in terms of percentage span.



6.Maintenance

To avoid possible electric shock or personal injury, repairs or servicing not covered in this manual should be performed only by qualified personnel.

7.Cleaning the Meter

⚠ To avoid electrical shock, remove any input signals before cleaning.

⚠ To avoid damaging the Meter, do not use aromatic hydrocarbons or chlorinated solvents for cleaning. These solutions will react with the plastics used in the Meter.

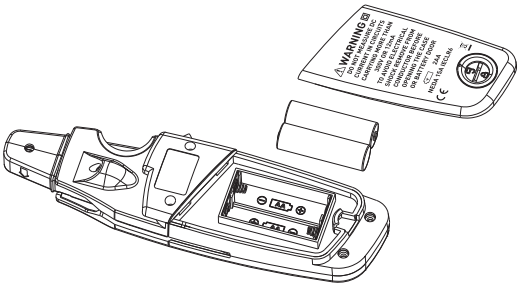
Clean the instrument case with a damp cloth and mild detergent.

8.Battery Replacement

⚠ To avoid false readings, that could lead to possible electric shock or personal injury, replace the battery as soon as the low battery indicator ( ) appears.

To replace the battery:

1.Turn the Meter off.
2.Use a flat head screwdriver to loosen the battery compartment door screw, and remove the door from the case bottom.
3.Remove the battery.
4.Replace the battery with two new AA batteries.
5.Reattach the battery compartment door to the case bottom and tighten the screw.



9.The Meter Comes With

- Two AA alkaline batteries (installed)
- Soft Case
- Instruction Sheet

10.Specifications

Current Ranges	0mA...±20.99mA	±21.0mA...±99.9mA
Resolution	0.01 mA	0.1 mA
Accuracy	0.3% reading ±8 digits	1% reading ±8 digits
Maximum Reading	±99.9mA	
Influence of Earth's Field	< 0.25mA	
Battery	2 AA 1.5V Alkaline	
Working hours	40 hours	
Operating Temperature	-10 to 50°C	
Storage Temperature	-15 to 60°C	
Operating Humidity	<90% at <30°C / <75% at 30 to 50°C	
Operating Altitude	0 to 2000m	
IP Rating	IP40	
Measurement Category	IEC 61010-1, 61010-2-032, CAT II 300 V	
Agency Approvals	CE	

Rev.190413