

PCE Americas Inc.
711 Commerce Way
Suite 8
Jupiter
FL-33458
USA

From outside US: +1
Tel: (561) 320-9162
Fax: (561) 320-9176
info@pce-americas.com

PCE Instruments UK Ltd.
Units 12/13
Southpoint Business Park
Ensign way
Hampshire / Southampton
United Kingdom, SO31 4RF

From outside UK: +44
Tel: (0) 2380 98703 0
Fax: (0) 2380 98703 9
info@pce-instruments.com

www.pce-instruments.com/english
www.pce-instruments.com

Manual Flexible Clamp Meter PCE-CM 4



Contents

1	Introduction	3
2	Safety notes	3
3	Specification	4
3.1	Electrical Specification	4
3.2	General Technical Data	4
4	System description	5
4.1	Meter discription	5
4.2	Display discription	5
5	Operation	6
5.1	Measuring instruction	6
5.2	Position sensivity	6
5.3	Button description	6
5.3.1	Backlight button	6
5.3.2	Hold button	6
5.3.3	MAX/MIN button	6
5.4	Replacing the Battery	7
6	Contact	8
6.1	PCE Instruments UK	8
6.2	PCE Americas	8

1 Introduction

Thank you for purchasing a flexible clamp meter PCE-CM 4 from PCE Instruments.

The flexible clamp meter PCE-CM 4 is a high quality meter for the measuring of current: It's possible to measure current at inaccessible electric conductors. The flexible clamp meter PCE-CM 4 has a measuring range up to 400 A. The meter is easy to handle. You can control the device with three buttons and one rotary switch. The meter is able to measure minimum and maximum readings. The HOLD-function allows freezing the data. The LCD-display has 4 digits, which means a high accuracy. The small and handy device promises a wide range of possibilities in any environment.

2 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. There is no warranty of damages or injuries caused by non-observance of the manual.

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 the battery symbol appears.

The device may only be used in approved temperature range

The opening of the case should only be done by qualified personnel of the PCE Instruments.

The instrument should never be placed with the user interface (e.g. keyboard side on a table)

You should not make technical changes on the device

The appliance should only be cleaned with a damp cloth / use only pH-neutral cleaner

This user's handbook is published from PCE Instruments without any guarantee.

We expressly point to our general guarantee terms, they can be found in our general terms of business.

If you have any questions please contact PCE Instruments.

3 Specification

3.1 Electrical Specification

Measuring Ranges	4A / 40A / 400A
Resolution	0,001A / 0,01A / 0,1A
Accuracy (45 ... 500Hz)	±3 %
Power Supply	2 x AAA oder 2 x UM-4; 1,5 V
Battery Life	120 Std.
Temperature Coefficients	0,1 deviation over 28 and under 18 °C

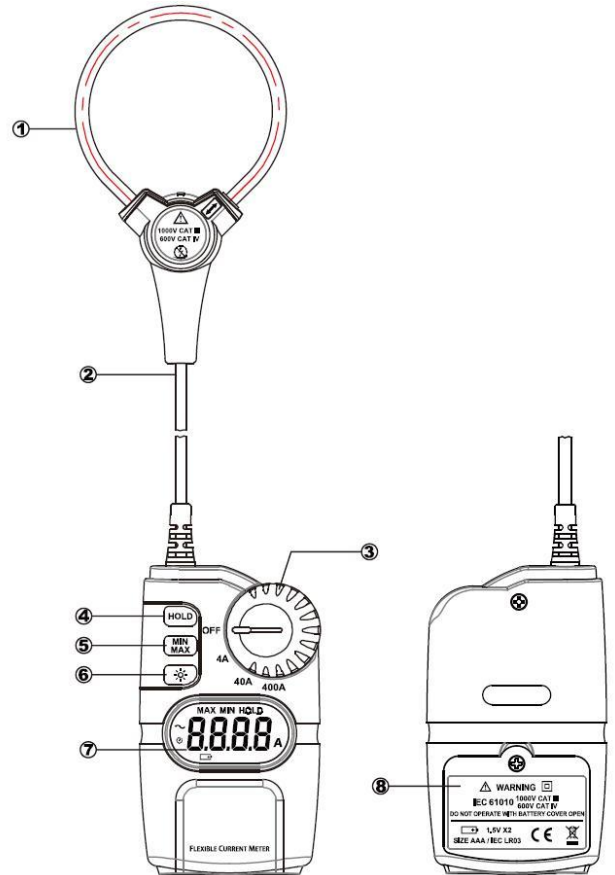
3.2 General Technical Data

Display	4 digits LCD display
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, it will be shown
Auto Power off	If there is no key or dial operation for 15 minutes, the meter will automatically power off to save battery
Disable Auto Power off	To disable the function, press the "Hold" button and keep it pressed while powering on the meter.
Probe Cable Length(s)	203 mm
Probe Cable Diameter	5,5 mm
Cable Length	1,5 m
Weight	196 g (include Battery)
Dimension (meter)	120mm(L)x70mm(W)x26 mm(H); 4.7"(L)x2.8"(W)x1"(H)

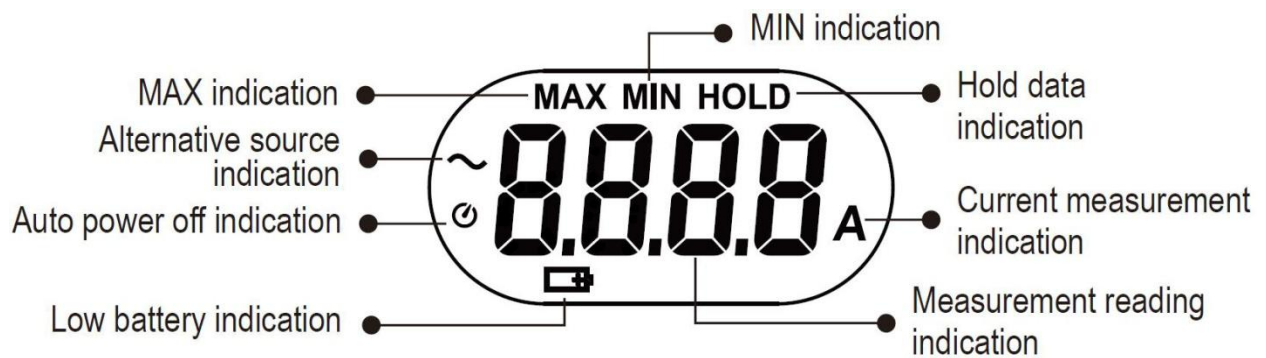
4 System description

4.1 Meter description

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



4.2 Display description



5 Operation

5.1 Measuring instruction

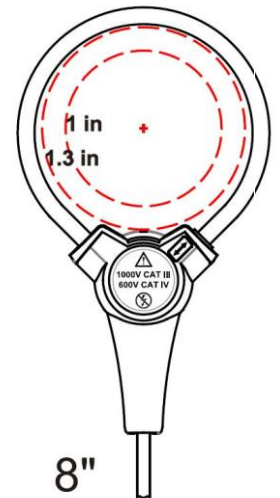
- To activate unit, move the rotary switch from the “off” position to the required measuring range.
- Select the desired range. If the value of current being measured is unknown, first select the highest range and then reduce accordingly.
- Connect the flexible probe around the conductor.
- Center the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

5.2 Position sensitivity

8" Flexible Current Probe	Distance from optimum	Error
	1 in	± 1%
	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.



5.3 Button description

5.3.1 Backlight button

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

5.3.2 Hold button

- Press the HOLD button to hold data.
- Press the HOLD button again to release held data.

5.3.3 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.

5.4 Replacing the Battery

1. When the battery voltage drops below proper operation range the battery 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.



6 Contact

If you have any questions about our range of products or measuring instruments please contact PCE Instruments.

6.1 PCE Instruments UK

By post:

PCE Instruments UK Ltd.
Units 12/13 Southpoint Business Park
Ensign Way, Southampton
Hampshire

United Kingdom, SO31 4RF

By phone:

02380 987 035

6.2 PCE Americas

By post:

PCE Americas Inc.
711 Commerce Way
Suite 8
Jupiter
33458 FL
USA

By phone:

561 320 9162

