



User Manual

PCE-MCM 10 Clamp Meter



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: www.pce-instruments.com

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1 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. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, ...) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.
- Never touch live components when measuring. There is a danger to life.
- Before replacing the batteries or the fuses, all test leads must be removed from the meter.

We do not assume liability for printing errors or any other mistakes in this manual.

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

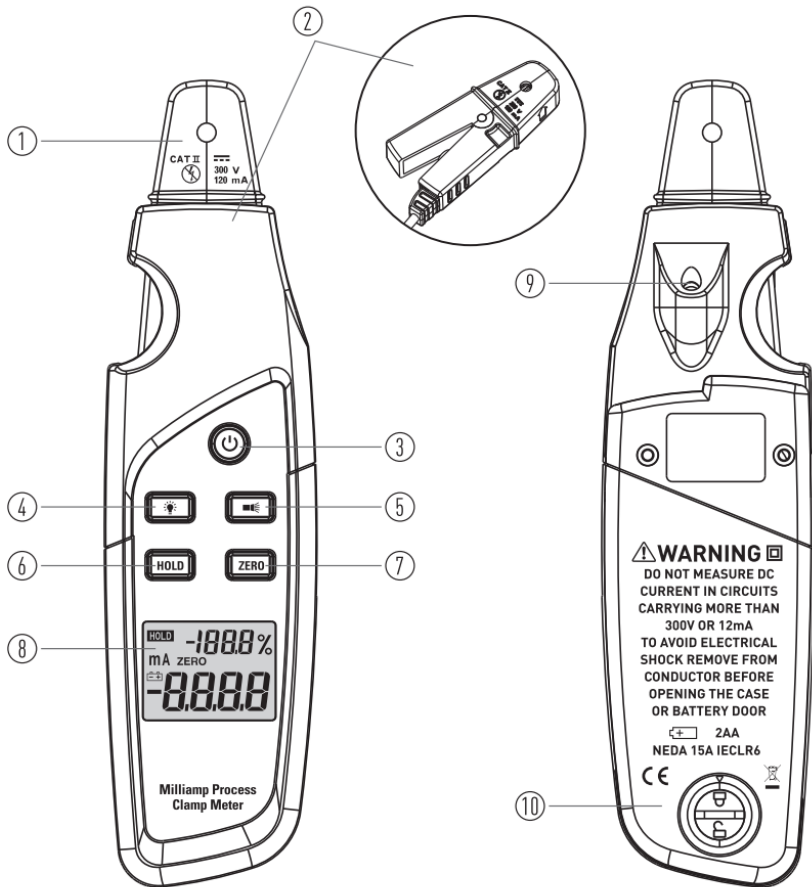
2 Specifications

Measurement range 1	±20.99 mA DC
Resolution	0.01 mA
Accuracy	±0.3 % of rdg. +8 digits
Measurement range 2	±21.0 ... ±99.9 mA DC
Resolution	0.1 mA
Accuracy	±1 % of rdg. + 8 digits
Influence of the earth's magnetic field on the measured value	max. 0.25 mA DC
Current clamp aperture	5 mm
Automatic power off	after 10 minutes (can be deactivated)
Operating voltage	3 V via 2 AA batteries
Battery life	approx. 40 hours
Protection class	IP40
Overvoltage category	CAT II 300 V
Operating conditions	-10 ... +50 °C / 14 ... 122 °F
Storage conditions	-15 ... +60 °C // 5 ... 140 °F
Environmental humidity	<90 % RH at <30 °C / 86 °F <75 % RH at 30 ... 50 °C / 86 ... 122 °F
Working height	0 ... 2000 m above sea level
Dimensions	handheld: 180 x 55 x 39 mm / 7.1 x 2.2 x 1.5 in current clamp: 90 x 40 x 1.5 mm / 3.5 x 1.6 x 0.06 in cable length: approx. 1 m / 3.3 ft
Weight	268 g / 0.6 lbs with batteries inserted

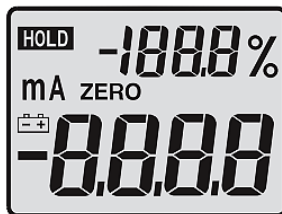
3 Delivery scope

1 x PCE-MCM 10
 1 x transport bag
 2 x 1.5 V AA battery
 1 x user manual

4 Device description



No.	Description
1	Current clamp
2	Current clamp compartment / removed current clamp
3	On and off key
4	On/off key for automatic power off
5	On and off key for the torch
6	Freeze measured value (HOLD)
7	Zero display
8	LC display
9	Torch
10	Battery compartment









The lower part of the display shows the current measured value. The upper part of the display shows the measured value scaled as a percentage. The scaling values can be taken from the following chart.

Measured value	Percentage display
0 mA	-25.0 %
2 mA	-12.5 %
3.2 mA	-5.0 %
3.6 mA	-2.5 %
4 mA	0 %
8 mA	25.0 %
12 mA	50.0 %
16 mA	75.0 %
20 mA	100.0 %

Formula: displayed percentage = 6.25 x measured value - 25


4.2 Icons

Icon	Description
	Keep away from dangerous live wires
	Important information
	Risk of electric shock
	Meter insulated according to class 2
	Batteries
	Direct current

5 Switching the meter on and off

To switch the meter on, press and hold the on/off key for three seconds. To switch the meter off again, press and hold the key again for three seconds.

5.1 Automatic power off

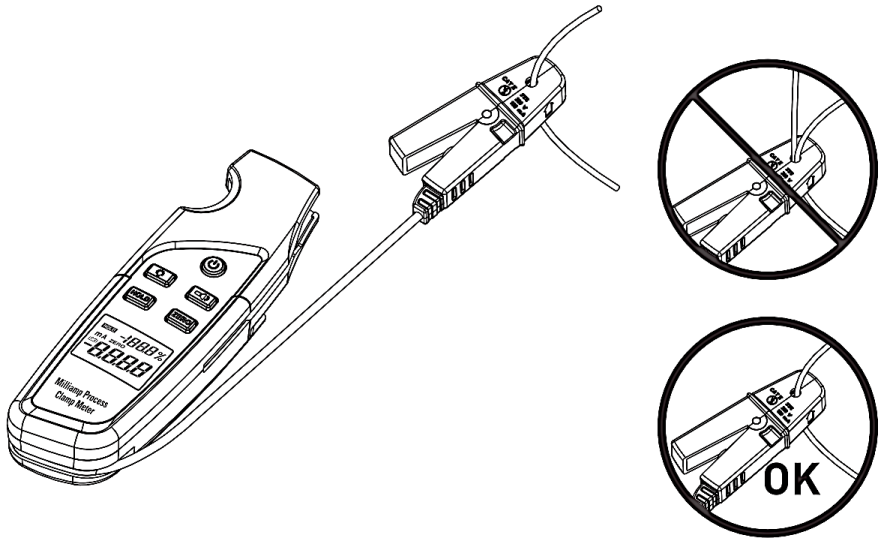
If the automatic power off function is active, the meter switches itself off within 10 minutes. To deactivate automatic power off, press and hold the  key for two seconds. To reactivate automatic power off, press and hold the key again.

Note: After restarting the meter, automatic power off is reactivated.

6 Making a measurement

To make a measurement, remove the measuring clamp from the meter and unwind the cable completely. Clamp the current clamp around the cable to be measured. Pay attention to the direction of current flow. This is marked on the current clamp. Only one cable must be in the current clamp at a time. If there are more than one, the measured values may be incorrect. The measured value is displayed directly.

Important: No measurement must be carried out on uninsulated lines.



6.1 Carry out zeroing

Before the measurement is made, the measured value should be zeroed to prevent an incorrect measured value from being displayed. The cable should not be connected during this.



To perform zeroing, press and hold the "ZERO" key for two seconds until "ZERO" lights up once briefly on the display. The measured value is now zeroed.

Note: Zeroing does not increase the measurement range. When zeroing, the current clamp must not be wrapped around a test lead.

6.2 Freeze measured value

To freeze the displayed reading, press and hold the HOLD key for two seconds. "HOLD" appears on the display. To resume the measurement, press and hold the HOLD key again for two seconds.

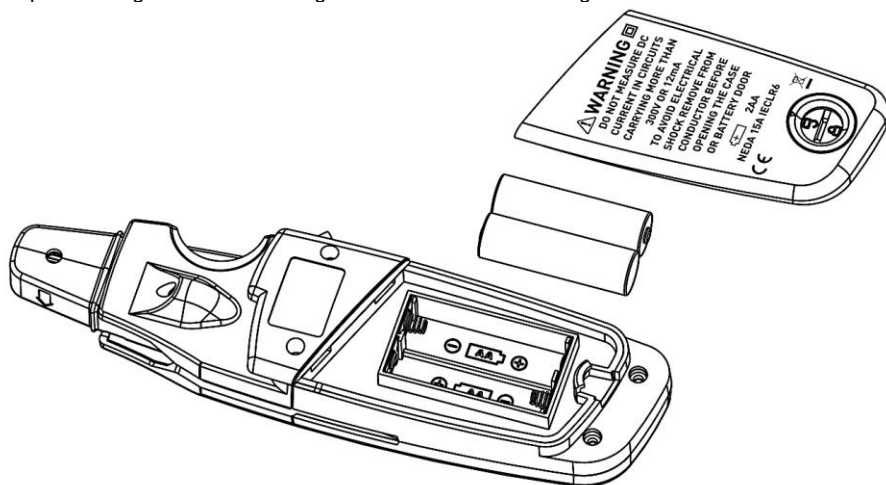
7 Torch

To activate the torch, press the  key for two seconds. To deactivate the torch, press and hold the  key again for two seconds.

8 Replace / insert batteries

If the battery voltage is too low, the batteries must be replaced with new ones. Otherwise, incorrect measurements may occur.

To replace or insert the batteries, first switch off the meter and disconnect the clamp from the test lead. Then open the battery compartment on the back. Insert new batteries and close the battery compartment again. The measuring device can now be used again.



9 Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

10 Disposal

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations.

If you have any questions, please contact PCE Instruments.





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