

# Moisture Meter User Manual PCE-PMI 1

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The NON-Contact Moisture Meter is an electronic dampness indicator with a measuring process working on the principle of high frequency measurement. The instrument is used for non-destructively tracing dampness in building materials of all kinds as well as for detecting damp distribution in walls, ceilings and floors. It is particularly suitable for pre-testing the readiness of building materials for covering prior to CM measurement.

## Features

- Quickly indicate the moisture content of materials
- Depth of penetration about 20-40mm.
- Low battery indication
- Auto Power Off
- MAX/MIN Function
- Measure and HOLD Function
- White Backlit LCD Display

## Specification

Specifications:

Sensor Type:	metal spheroid
Measuring Range:	0 to 100
Max Resolution:	1
Battery:	9V battery
Dimensions:	180 mm×45mm×35mm
Weight:	180g

# Adjustment

The instrument is calibrated fully electronically and readjustment is not necessary.

## Safety remarks

There is a risk of injury if the metal ball comes into contact with live parts. Do not use the instrument in the immediate vicinity of older equipment or equipment equally sensitive to high frequencies (e.g. functioning medicinal equipment). Use the instrument only for measuring the dampness in hardened building materials by bringing the ball into contact with the surface.

## Instrument Check

Hold the instrument as near to the back as possible. Press the "MESA" button and hold the instrument with the ball in the air. The displayed value must be between -5 and +5.

## Front Panel Description

1. Metal Ball
2. MAX/MIN Button
3. LCD Display
4. Power ON/OFF Button
5. Backlight Button
6. MEAS Button
7. Battery Cover



## Button Function

### Power Button

Turn the meter power ON or OFF.

### MEAS Button

Press the MEAS button, the instrument will start measuring. Release this button the “HOLD” icon will appear on the LCD indicating that the current reading is being held.

### MAX/MIN Button

When taking measurements, press MAX/MIN Button, the ‘MAX’ icon will appear on LCD display and the meter will begin keeping track of MAX value. Press the button again, ‘MIN’ icon will appear on LCD display and the meter will begin keeping track of MIN value. Press MAX/MIN button for two seconds to exit this mode.

### Backlight button

Turn the backlight on or off.

## Operation

After switching on and pressing “MEAS” the instrument does a self-calibration. Therefore hold the instrument during the first measurement into the air away from yourself and other surfaces. The display indicates “CAL”. After approx. 2 seconds it will display 000 (Keep “Meas” pressed until CAL disappears. Now you can start with the measurements. Hold the instrument as near to the back as possible. Press the “MEAS” button and use the ball to scan the surface under investigation. The ball must be in firm contact with the material. To obtain the best results, the instrument should be held at an angle of 90° to the surface to be measured.

## Note:

Do not take measurements on metallic linings!

In corners or recessed areas a distance of ca. 8-10 cm from the edge/recess must be maintained.

If there is any metal in substructure (constructional steel, channels, pipes, plaster rails, etc.) and with normal coverings, the display jumps to ca. 50 digits for otherwise dry surroundings.

It is only possible to reach a conclusion about the absolute dampness in wt-% or the dampness in CM-% if the normal drying out process has taken place (e.g. not during or shortly after the use of drying agents or heat guns). If there is not a roughly normal variation in dampness between the surface and the interior, too low a measured value may be indicated.

The raw density of the material being measured has a noticeable effect. Basically, the value displayed with dry and damp building materials increases correspondingly with increasing raw density.

The values given in the table below are indicative and non-binding. Please bear in mind, when evaluating the measured value displayed on the NON-Contact Moisture Meter with respect to the material, that it is not a dampness measurement qualified to VOB or the relevant specialist regulations.

All information and tables in these operating instructions concerning permissible or common dampness conditions in practice as well as the general definition of terms are taken from the technical literature. The manufacturer of the instrument can thus not give any guarantee for the correctness of this information. The conclusions to be drawn from the result of measurements by each user depend upon the individual circumstances and his experience gained from professional practice.

<b>Building Materials</b>	<b>Moisture range (unit)</b>	<b>Moisture status</b>
Gypsum	< 30	DRY
	30 - 60	MEDIUM
	> 60	WET
Cement	< 25	DRY
	25 - 50	MEDIUM
	> 50	WET
Wood	< 50	DRY
	50 - 80	MEDIUM
	> 80	WET

## Converting table

<b>LCD</b>	<b>Gypsum (mineral) %water</b>	<b>Screed/Cement %water</b>	<b>Wood %water</b>
15			
20			10,00
25			12,00
30	0,25		15,00
35	0,30	2,50	17,00
40	0,40	2,65	20,00
45	0,65	2,85	
50	1,00	3,20	
55	1,40	3,55	
60	1,70	4,00	
65	1,90	4,30	
70	2,05	4,70	
75	2,20	5,10	
80	2,35	5,45	
85	2,50	5,75	
90	2,65	6,10	

This information is a roughly indication. For wood the results are determined by pine tree.

## Battery replacement

If the icon “” appears on the LCD display, it indicates that the battery should be replaced. Open the battery case and replace the exhausted battery with new battery.

## Waste disposal



This product has been manufactured using high-grade materials and components which can be recycled and reused.

Never dispose of empty batteries and rechargeable batteries in household waste.

As a consumer, you are legally required to take them to your retail store or to an appropriate collection site depending on national or local regulations in order to protect the environment. The symbols for the heavy metals contained are: Cd=cadmium, Hg=mercury, Pb=lead



This instrument is labelled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE). Please do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated

 collection point for the disposal of electrical and electronic equipment, in order to ensure environmentally-compatible disposal



This sign certifies that the product meets the requirements of the EEC directive and has been tested according to the specified test methods.

Technical changes, any errors and misprints reserved.