Metrix+™ MM 2

Pin-type Moisture Meter

User's Manual





Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.

⚠ Warning

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire or serious injury.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not expose device to harmful or corrosive chemicals.
- Do not immerse the device in water. Do not allow liquids to penetrate into the device.
- The device may only be used in dry surroundings and must not be used in the rain or at a relative humidity exceeding the operating conditions.
- Protect the device from permanent direct sunlight.
- Do not expose the device to strong vibrations.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Do not operate the device near medical equipment (e.g. pacemakers).
- Do not open the device.
- Do not operate the device near open electrical wiring.
- Never charge batteries that cannot be recharged.
- Insert the batteries into the compartment according to the correct polarity.
- Remove discharged batteries from the device. Batteries contain materials hazardous to the environment. Dispose of the batteries according to the national regulations.
- Remove the batteries from the device if you will not use the device for a long time.
- Never short-circuit the supply terminal in the battery compartment.

- Do not swallow batteries, If a battery is swallowed, it can cause severe internal burns within 2 hours. These burns can lead to death.
- If you think batteries might have been swallowed or otherwise entered the body, seek medical attention immediately.
- Keep batteries and open battery compartments away from children.

Warning of electrical voltage

- There is a risk of a short circuit due to liquid penetrating the housing. Do not immerse the device and accessories in water.
- Work on the electrical components must only be carried out by an authorised specialist company.

Product description and specifications

Intended use

This moisture meter is used for determination of the material moisture approximately in wood, paper (packing materials) and wall (building materials), it based on the principle that the electrical conductivity of the measured material changes with the change of moisture content, the electrical conductivity of the measured material is deduced from the resistance which is determined by the moisture meter.

This moisture meter reading data is displayed as %, it is based on the dry mass of the measured material. The moisture content is calculated according to the following formula: moisture content in mass% = (mass of water contained in the material / dry mass of the material)x100%.

Example: 600g material contains 100g water=20% moisture content.

Product features

- The self-developed advanced software algorithm is used to ensure that the measurement is fast, accurate and stable;
- Large liquid-crystal display for clear readings;
- Double alarm with buzzer and three color backlight;

Technical parameters

Measuring range	Paper:4%~90%
	Wall:1.5%~30%
	Wood:4%~75%
Accuracy	±0.5%
APO	5min
Alarm mode	LCD backlight and buzzer
Screen	1.7 inch LCD
Battery	2*AAA batteries
Electrode lengt	10mm(0.4")

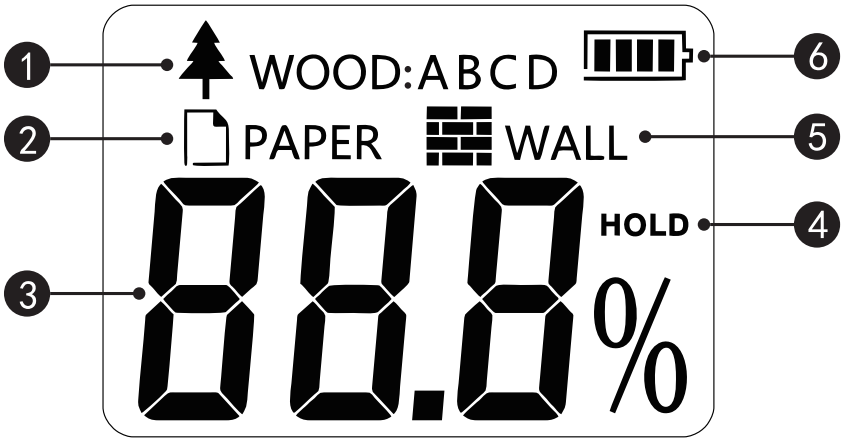
Electrode pins	Integrated
Operation temperature	0~40℃(32~104℉)
Operation humidity	5%~95%RH
Storage temperature	-10~50℃(14~22℉)
Size	145*67 * 32mm (5.7"* 2.6"*1.3")
Weight	Including batteries120g(4.2oz)

Product part description



1. Protective cover
2. Electrode pins
3. Display screen
4. Power button
5. Hold screen button
6. PAPER/WALL mode selection button
7. WOOD groups button
8. Battery compartment

Display description



1. "WOOD" groups
2. "PAPER" measurement mode
3. Measured values
4. Data hold
5. "WALL" measurement mode
6. Battery level indication

Product Usage

1.Power on

Put 2 AAA batteries into the device and remove the protective cover of the instrument, then press the power button " ⏻ " to power on.

2.Start measuring

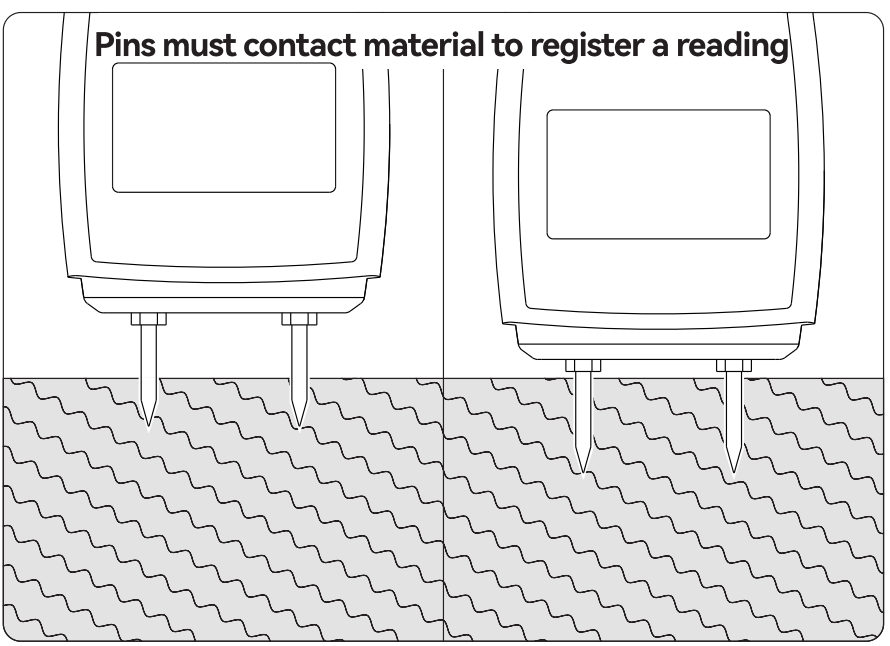
Selecting the measurement mode

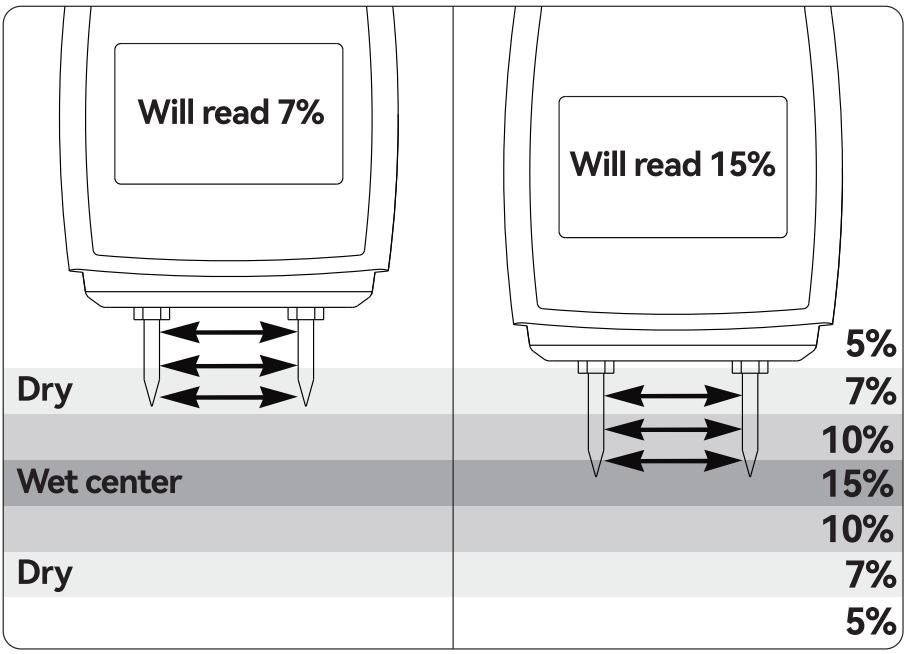
For optimum measuring results, the material characteristic must be selected before each measurement. Press the button " WOOD " or " PAPER WALL "to select the appropriate material. then insert the electrode pins into the material, the reading on the display is the moisture content of the material being measured. To hold the reading, press the button " HOLD " when the reading is stable.



NOTES:

1. The electrode pins of this instrument is very sharp, and it must not be used as a toy for children, so as not to be injured. When not in use, please close the protective cover tightly.
2. This instrument is a high-resistance instrument, all parts should have good insulation, in storage and use, we should pay attention to moisture and dust, keep the meter dry and clean, in order to ensure the accuracy of measurement.
3. For best results of wood moisture content, Push the Pins deep into the material, Make sure Pins are in contact with the material(wall, wood or hardwood).
4. Pins sense and measure along their full length, so that Pins penetrating a dry material through a wet outer surface can read moisture content.





Reference table of materials

Measurement mode		Example of materials
Paper		Cardboard, Carton, Paper...
Wall		Sheetrock, Wall Board, Floor...
Wood	A	Teak, Walnut, Afrormosia, Rubber Tree, Imbuia, Kokrodua, Niove Bidinkala, Cork...
	B	Keruing, White Poplar, Beech, Cedar, Tola...
	C	Lauan, Ash, Elm, Fir, Maple, Padauk, Oak, Cherry...
	D	Basswood, Larch, Pine, Birch...

Reference table of moisture level

Group / Moisture level	Wood(%)				Paper (%)	Wall (%)
	A	B	C	D		
Green	<12	<12	<20	<20	<12	<7
Yellow	12~16	12~16	20~26	20~26	12~16	7~10
Red	>16	>16	>26	>26	>16	>10

3.Battery change

A battery change is required when the device can no longer be turn on or the battery icon shows low power " ". Please remove the old battery, then observe the polarity mark in the battery compartment, and install new batteries according to the correct polarity.

4.Power off

When the measurement is complete, press the power button " " to power off. Or wait for the instrument to shut down automatically after 5 minutes of no operation.

Transportation and storage

If you store or transport the device improperly, the device may be damaged. Note the information regarding transport and storage of the device.

When the device is not being used, observe the following storage conditions:

1. Dry and protected from frost and heat
2. Protected from dust and direct sunlight
3. The storage temperature complies with the values specified in the technical data.

Maintenance and repair

- **Cleaning**

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing.

- **Repair**

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Waste disposal



At the end of its useful life, the product must not be disposed of with household waste. Always dispose of packaging materials, batteries, and waste electronic devices in an environmentally friendly manner and in accordance with local regulations.