USER MANUAL

MADE IN CHINA

CE RoHS M101040055

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Non-destructive moisture meter

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120*90mm

Overview

Nondestructive hygrometer, mainly through the spherical humidity sensor no-damage test material containing moisture. A maximum penetration depth of approximately 20mm-40mm and is suitable for measuring concrete, wood, floors, walls, and other building materials.

The water for solidification in the production process of concrete, mortar and plaster can only spread after 1~2 months.

Even if doors and windows are well insulated, water and moisture can still penetrate brick walls.

Even after a high water level or flood, the water trapped in the masonry is released very slowly, so is the water contained in the stored materials.

The water (water vapor) released from some parts of buildings or materials is absorbed by the surrounding air, and the water content increases, eventually leading to corrosion, mildew, decay, paint peeling and other unnecessary damages.

Warnings:

The humidity level shown is the average value determined by the humidity on the outer surface and inside the material. If there is any visible surface moisture or water, please wipe it off and allow the surface to dry for a few minutes before starting the measurement.

The measuring depth of the device is 20~40mm. If the thickness of the material is less than 20mm, the measured value of humidity level may be inaccurate due to the adjacent materials.

Other factors can also affect the measurement. Before measurement, any paint residue, dust, etc. on the corresponding surface must be removed.

If the ball head is fixed at a corner (such as a tile joint or a corner), the measured value is usually higher. The measuring head does not measure a single surface, so the head must be 80~100mm away from the corner.

When measuring, keep your hands away from the measuring head, in case the humidity of your hands may affect the results.

If the measured material contains metal (such as nails, screws, leads, metal pipes, etc.) and is located in the measuring area of the sensor, the measured value suddenly increases due to strong reflection.

Place the humidity sensor on smooth surfaces. Rough surfaces lead to inaccurate measurement results.

The density of the measured material plays an important role in the measurement results. The measured values increase with their respective densities.

The humidity sensor must be held at right angles directly to the surface to be measured.

1. Safety information

This product is not a toy. Please keep it properly to avoid danger or injury caused by contact from the children.

Keep the product far away from high temperature, direct sunlight, strong vibration, humidity, corrosive gases or objects.

If the product is obviously damaged or abnormal, please stop using it to avoid the error of measurement data, which will lead to accidents.

If the use environment of the product suddenly changes, the measurement results may be inaccurate, so put the product for a period of time before use to make its temperature balance.

Do not drop or hit the product.

If the surface of the product is stained or dusty, please clean it with a wet sponge or soft cloth.

Please ensure the correct polarity when loading the battery, and take it out for long-term storage to prevent from leaking.

Do not disassemble the product to avoid malfunction.

The user is responsible for the measurement results of this product. Under no circumstances do we accept any responsibility for damage caused by the application of the measurement results.

2. LCD display



1. Analog display
2. Numeric display
3. Low battery
4. DRY
5. RISK
6. WET
7. HOLD data hold
8. MAX maximum value
9. MIN minimum value
10. Automatic shutdown symbol

3. Function introduction



1. Non-destructive humidity sensor
2. Color screen
3. Power
4. SET key
5. MEAS calibration/ data hold key
6. (▼/▲) Numeric adjustment plus and minus key
7. MAX / MIN max, min value lock

4. Operation guide

Switch the machine: Short press of the (⏻) key.

Calibration: After starting the unit for the first time, put it in the air for calibration, so that the non-destructive humidity sensor does not touch any objects. The minimum distance from any surface or your hand to the ball head of the sensor should be 80-100 mm. Press MEAS to start the calibration procedure. During the calibration, the LCD screen displays "CAL", and the calibration is completed after the product makes two beeps in about 3 seconds. After calibration, the LCD shows the current humidity level, and the calibration value should be "0". If not, please shut down and restart the unit and repeat the calibration procedure.

Note:

If the product has not been calibrated, do not change the position of your hand in the subsequent measurement. The measurement calibration and measurement must use the same hand position, because the change of your hand position relative to the ball head of the humidity sensor can lead to measurement errors.

The calibration must always be carried out again after each new switch-on as well as each change of the measuring point or the measured object!

* MAX / MIN: Press the MAX / MIN key briefly during the measurement to clear the maximum or minimum value lock.

5. Measurement

Hold the ball head of the humidity sensor at right angles to the surface. The display shows the measured value.

Move the product to measure a larger surface, and the LCD screen should display the current measured value and the maximum and minimum measured values.

If necessary, press the MEAS key to lock the value on the display and "HOLD" appears on the display.

Press the MEAS key in the "HOLD" mode to exit the "HOLD" mode and perform further measurement.

After completing the measurement, press short (⏻) to close the instrument. If not, it automatically closes after 30 minutes.

To cancel the automatic shutdown function, press the MEAS key to turn on the unit in the shutdown state. The screen shows "APO" to cancel the automatic shutdown function. This function cannot be saved and needs to be reset after manual shutdown.

Set the limit value:

The measurement unit also displays three non-digital measurement formats: "DRY", "RISK" and "WET".

When the humidity reaches "RISK" or "WET", the measuring unit beeps during measurement.

In the "WET" range, the measuring unit beeps urgently.

By default, a humidity reading of <30 will display "DRY"; 30 - 60 will display "RISK"; and a reading above 60 will display "WET".

Different materials have different moisture tolerance. Please refer to Humidity limit ranges for further information.

Set the limit value:

When the "HOLD" symbol is displayed, press the SET key to enter the set mode.

When the "RISK" symbol flashes, press the ▼key or the ▲ key to adjust the lower limit for "RISK".

The value can be set from 0 to 50. The factory default setting is 30. Press the SET key to confirm your selection.

When the "WET" symbol flashes, press the ▼ key or ▲ key to adjust the lower limit for "WET".

The value can be set from 51 to 100. The factory default setting is 60.

Press the SET key to confirm your selection. The LC display switches back to

the initial mode ("HOLD") .The limit values of "RISK" and "WET" are set and stored.

Press the MEAS key to enter the measurement mode.

6. Technical specifications

Product name	Non-destructive moisture meter
Measurement range	0-100
Measured depth	20-40mm
Range of RISK limit value	0-50
Range of WET limit value	51-100
Automatic shut-down	30 minutes
Display	Color screen
Battery	1.5V×3 AAA
Operation current	About 35mA
Operation temperature	0-40 °C
Operation humidity	0%-70%RH
Storage environment	-10~50°C(5%-95%RH)
Dimension	225*63*32mm
Weight	200g(excluding batteries)

7. Humidity limit ranges

Building material	Humidity range (unit)	Humidity status
Wood	< 50	DRY
	50-80	RISK
	> 80	WET
Cement	< 25	DRY
	25-50	RISK
	> 50	WET
Plaster	< 30	DRY
	30-60	RISK
	> 60	WET

8. Replacing batteries

① Turn off the product power.

② Use a screwdriver to remove screws of the battery cover on the back of the product.

③ Remove the battery cover.

④ Remove the old battery.

⑤ Replace with new 1.5Vx3AAA batteries.

⑥ Install the battery cover and tighten the fixing screws.

9. Packing list

① Non-destructive moisture meter	×1
② Operating manual	×1
③ 1.5Vx3 AAA battery	×3
④ Storage bag	×1