Non-destructive moisture meter

User Manual

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 from away from children to avoid unnecessary danger and injury.

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.

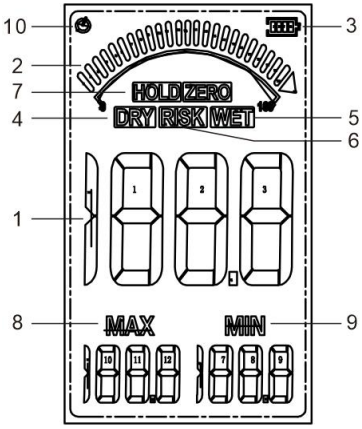
Please ensure the correct polarity when loading the battery, and take it out for long-term storage to prevent from leaking.

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. Numeric display 2.Analog display

3.Battery indicator 4.DRY

5.WET 6.RISK

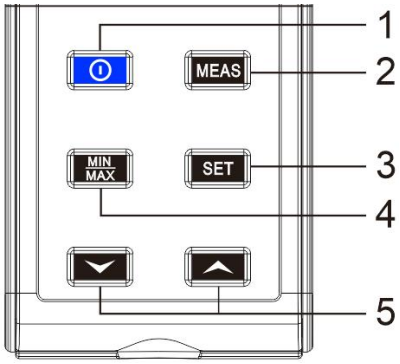
7.HOLD data hold

8.MAX maximum value

9.MIN minimum value

10.Automatic shutdown symbol

3.Function introduction



1 Power

2 MEAS calibration/data hold key

3 SET key

4 MAX/MIN max,min value lock

5 (▼ / ▲) Numeric adjustment plus and minus key

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 conversion MAX / MIN key briefly to lock the maximum and minimum measurements of the data.

5.Measurement

Hold the ball head of the humidity sensor Vertical 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 doses after 30 minutes.

To cancel the automatic shutdown function. Long press MEAS key in the shutdown state and meanwhile press the (⏻) power key, auto-shutdown function is canceled successfully when “APO” display on the screen.The screen shows "APO" to cancel the automatic

shutdown function. This function cannot be saved and needs to be reset after manual shutdown.

Explanation of limit values:

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 LCD 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	Lithium battery 3.7V 400mAh
Operation current	About 35mA
Operation temperature	0-40℃
Operation humidity	0%-70%RH
Storage environment	-10-50℃(5%-95%RH)
Size	195x60x30.5mm
Weight	153g

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.Charging instructions

When the battery voltage drops below the normal operating range, the "  " symbol will appear on the display and the battery needs to be charged.

1) Connect the DC-5V power adapter common to mobile phones or other electronic devices to the USB charging port of the meter with a Type-C USB cable.

2) The charging symbol displays full and stops flashing, indicating that charging is complete.

9.Packing list

Non-destructive moisture meter	*1
Operating manual	*1
Storage bag	*1

Above picture and content just for your reference. Please be subject to the actual products if anything different or updated. Please pardon for not informing in advance.