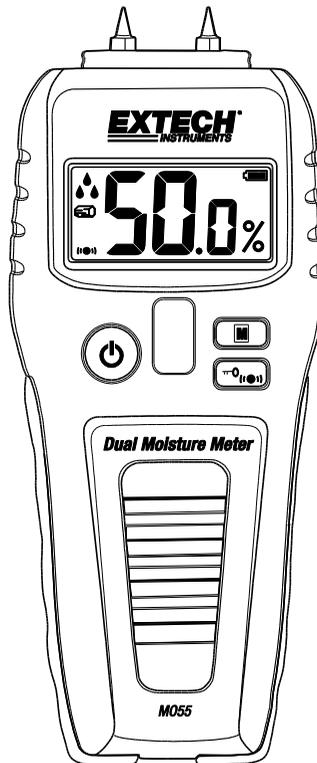


## Dual Moisture Meter

Pin and Pinless Moisture Measurements

Model MO55



## ***Introduction***

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Thank you for selecting the Extech MO55 Pin and Pinless Dual Moisture Meter. The compact MO55 takes quick Moisture level reference measurements (in percent %) on wood and building materials. The MO55 can be used in pinless mode (rear sensor) or in pin mode. The MO55 is simple to operate and offers measurement digits, audible tones and 'moisture drop' icons to indicate moisture level content.

The MO55 is ideal for building restoration projects and applications where moisture detection on floors and under carpets is critical. The MO55 is a great tool for analyzing the after-effects of water leakage behind walls and in ceilings.

This meter is shipped fully tested and calibrated and, with proper use, will provide years of reliable service. Please visit our website ([www.extech.com](http://www.extech.com)) to check for the latest version of this User Guide, Product Updates, Product Registration, and Customer Support.

## ***Features***

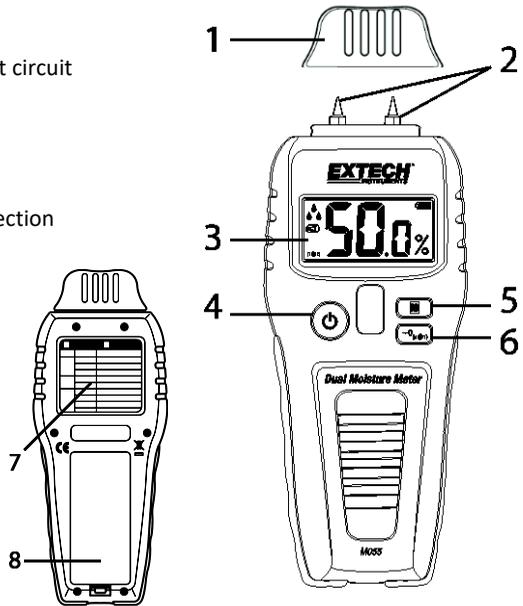
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- Displays the moisture level in wood and building materials (wall board, sheet rock, cardboard, plaster, concrete, and mortar)
- Pinless (non-invasive) or Pin modes of operation
- Auto zero calibration for Pinless mode
- Audible tone rate beeps faster as the moisture level increases (8 tone variations)
- 'Moisture drop' Icons display low, medium and high levels of moisture content
- Easy-to-use, compact design
- Display Lock freezes reading on display
- Auto Power Off after 2 minutes conserves battery power
- Complete with protective cap and 9V battery

# Description

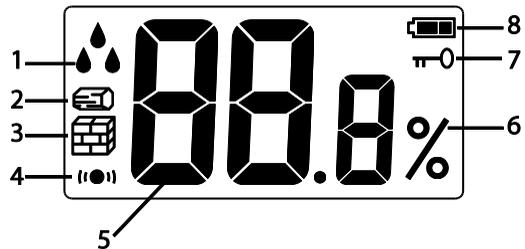
## Meter Description

1. Protective cover and pin-mode self-test circuit
2. Measurement pins
3. LCD Display
4. Power button
5. Mode (M) Pin/Pinless and Material selection
6. Display Lock/Beeper button
7. Internal sensor (rear)
8. Battery compartment (rear)



## Display Description

1. Moisture Drop icons (1 droplet for low moisture content, 2 for medium, and 3 for high)
2. Wood mode
3. Building Material mode
4. Beeper active icon
5. Moisture reading digits
6. Percent moisture unit (relative)
7. Display Lock mode
8. Battery status icon



## Button Description

Button	Button name	Description
	Power ON-OFF	Press and hold to switch the meter ON or OFF
<b>M</b>	Mode (Material Select)	Select Material (Wood, Building Materials) for Pin or Pinless mode
	Display Lock / Beeper control	Short press locks reading on the display Long press toggles the Beeper ON/OFF

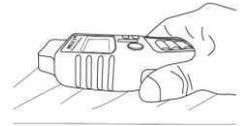
# Operation



**CAUTION:** The electrode measurement pins are extremely sharp. Use care when handling this instrument. Cover the pins with the protective cap when not in use.

## Operating Steps

1. For pin mode, carefully remove the protective/test cap to expose the electrode pins.
2. Switch the meter ON by long press of the  button. The meter emits audible tones and the display switches on when the meter powers up. If the meter does not switch on please check the battery in the rear compartment.
3. Momentary presses of the Mode (M) button step through the following four material modes: Wood - Pin mode , Building Material - Pin mode , Wood - Pinless mode (icon blinking) , and Building Material - Pinless mode (icon blinking) .
4. For pin mode, push the electrode pins into the material under test.
5. For pinless mode, with power on, hold the meter in open air (rear sensor should be clear of hands and any objects) and then select material (step 3); the meter is now zero-calibrated. Press the sensor firmly against the surface under test to take a reading.
6. Observe the displayed reading in percent (%), view the displayed moisture droplet icon  and listen for the audible tones.



*1 moisture droplet for low readings; 2 for medium readings; 3 for high readings; refer to the chart on the back of the meter. Listen for the audible tone (fast beeping for higher readings and slow beeping for lower readings). There are eight (8) tone variations.*

7. Long press of the power button switches the meter off.

## Measurement Interpretation Table

		PIN MODE		PINLESS MODE	
		WOOD (%)	BUILDING MATERIAL (%)	WOOD (%)	BUILDING MATERIAL (%)
<b>TOTAL RANGE &gt;</b>		<b>5.0~50.0</b>	<b>1.5~33.0</b>	<b>0.0~99.9</b>	<b>0.0~99.9</b>
	<b>LOW</b>	5.0~11.9	1.5~16.9	0.0~16.9	0.0~16.9
	<b>MEDIUM</b>	12.0~15.9	17.0~17.9	17.0~29.9	17.0~29.9
	<b>HIGH</b>	16.0~50.0	20.0~33.0	30.0~99.9	30.0~99.9

## Auto Power OFF (APO)

To conserve battery energy the meter automatically switches off after a two-minute period of inactivity.

## Display Lock

Press the Display Lock button  to freeze the displayed reading. The  icon is visible on the display when Display Lock is active. Press  again to return to the normal operating mode.

## Beeper ON/OFF

The beeper defaults to ON. To switch the beeper OFF, press and hold the Display Lock/Audible Beeper button  until the icon disappears. When the beeper is active the audio display icon  will be visible.

## Pin-Mode Self-Test

Turn on the meter and set the meter to Pin mode Wood or Building materials and then touch the electrode pins to the contacts through the holes at the top of the Protective/Test cap.

Expected result: **Wood** 17.0 to 19.0%; **Building** 15.5 to 17.5%

When the meter reads outside of these ranges please replace the battery and retry. If the meter continues to read outside of these ranges, the meter should be returned for service.

## Pinless Mode Comparison Measurements

While holding the meter against a known dry surface, turn on the meter. Press the Mode (M) button to step to the preferred setting, blinking wood or blinking building material icon. The meter will now read 0% (relative/offset reading). Now move the meter to other areas to test to find higher levels of moisture.

## Maintenance

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### Battery Replacement

When the battery status icon  appears empty or flashing, replace the battery.

1. Remove the rear battery compartment cover by pushing the compartment latch.
2. Replace the 9V battery observing correct polarity.
3. Replace the compartment door securely.
4. Dispose of battery responsibly and within applicable legal regulations.



*Never dispose of used batteries or rechargeable batteries in household waste.*

*As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.*

**Disposal:** *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.*

### Care and Cleaning

- When the instrument is not in use please keep the protective cap in place.
- Store the meter in a stable, dust-free environment; out of direct sunlight.
- Remove the battery from the instrument if the meter is to be stored for long periods or if the battery power symbol appears empty (or flashing) on the display.
- To clean the meter case, wipe with a damp cloth do not use solvents or abrasives.
- To clean the pins, wipe carefully with a damp cloth to remove residue; allow to dry well.

## Specifications

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Display	LCD with multi-function indicators
Measurement type	Relative Moisture Content (%)
Measurement principle	Electrical resistance (pins) Electrical capacitance internal sensor (pinless)
Measurement depth	Pinless mode: < 25mm (1 in.)
Auto Calibration	Pinless mode in open air
Measurement indication	Digital, Moisture Droplet icons (1, 2, or 3 droplets) and audible tone with 8 levels of intensity indicating low to high moisture readings
Measurement ranges	PIN MODE: 5.0~50.0% (wood), 1.4~33.0% (building materials); PINLESS MODE: 0.0~99.9% (for wood and building materials)
Resolution	0.1%
Accuracy (Pin mode)	± (3% + 5 digits) for ambient conditions 22 °C to 25 °C (72 °F to 77 °F)
Electrode pin length	0.3" (8mm)
Electrode pin type	Stainless steel. Integrated, replaceable
Auto Power OFF	After approx. two (2) minutes
Power supply	One (1) 9V Battery (rear compartment)
Consumption	< 40mA
Low Battery indication	Battery status icon  appears empty or flashing
Operating conditions	5~45°C (41~113°F); 80%RH max.
Storage conditions	0~50°C (32~122°F); 85%RH max.
Dimensions	170 x 65 x 30mm (6.7 x 2.6 x 1.2")
Weight	120g (4.2 oz.) without battery

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