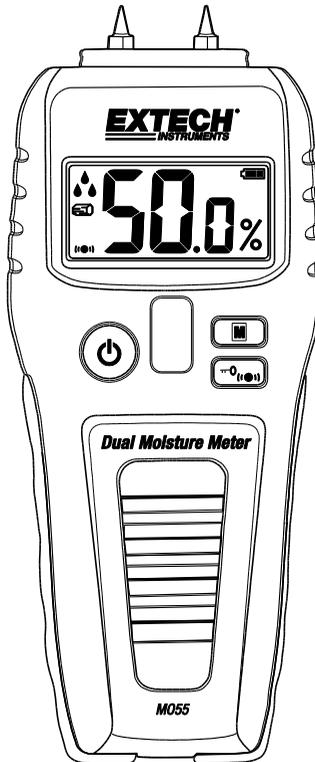


Dual Moisture Meter

Pin and Pinless Moisture Measurements

Model M055



Introduction

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) to check for the latest version of this User Guide, Product Updates, Product Registration, and Customer Support.

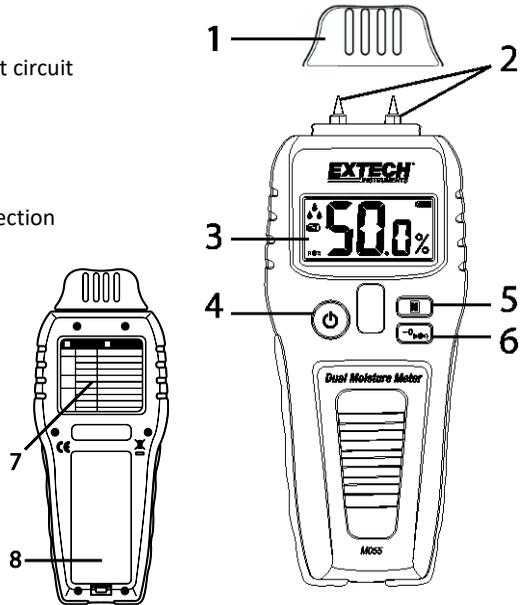
Features

- 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

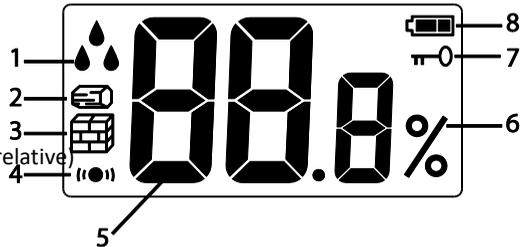
Meter Description

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
M	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

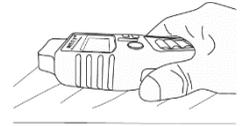
Operation



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 (%)
TOTAL RANGE >		5.0~50.0	1.5~33.0	0.0~99.9	0.0~99.9
	LOW	5.0~11.9	1.5~16.9	0.0~16.9	0.0~16.9
	MEDIUM	12.0~15.9	17.0~17.9	17.0~29.9	17.0~29.9
	HIGH	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

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.

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

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: < 1 in. (25mm)
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 72 °F to 77 °F (22 °C to 25 °C)
Electrode pin length	0.3 in. (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	41~113°F (5~45°C); 80%RH max.
Storage conditions	32~122°F (0~50°C); 85%RH max.
Dimensions	6.7 x 2.6 x 1.2 in. (170 x 65 x 30mm)
Weight	4.2 oz. (120g) without battery



Two-year Warranty

Teledyne FLIR warrants this Extech brand instrument to be free of defects in parts and workmanship for two years from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: <http://www.extech.com/support/warranties>.

Calibration and Repair Services

Teledyne FLIR offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

Contact Customer Support

Customer Support Telephone List: <https://support.flir.com/contact>

Calibration, Repair, and Returns: repair@extech.com

Technical Support: <https://support.flir.com>

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