

MRHIII Digital Moisture Meter

The digital Moisture and Humidity Meter for Moisture Evaluation of Buildings and Construction Materials

The MRH is a pocket-sized, Non-Destructive, Digital Hand-Held electronic impedance moisture meter. Incorporating 3 modes of operation, this is the complete instrument for Moisture and Humidity testing. Also available as a kit.



Industry

Wood, flooring, Indoor Air Quality, Water Restoration, Pest Control, Inspection / Surveying.

Material

Wood, Plaster / Brick, Tiles, Plasterboard (drywall).

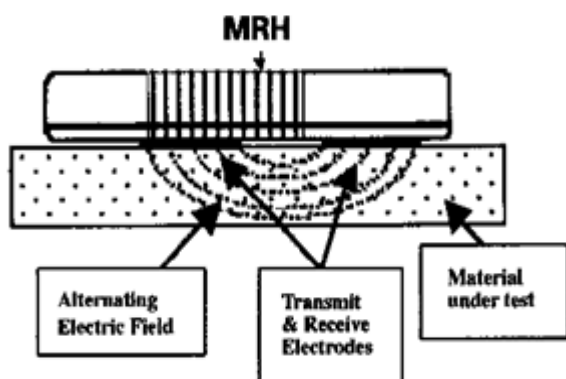


The **MRH** gives you:

- Digital, Non-Destructive Moisture Meter.
- Plug in Wood Probe.
- Plug in Humidity Probe for Relative Humidity, Temperature, Dew Point and Mixing Ratio readings.
- Specific Gravity adjustment for most wood species
- Deep signal penetration up to over 25 mm into the materials being tested without the need to damage the surface.
- External Rubber electrodes make direct contact with the material being tested for best sensitivity and repeatability.
- Wide range of readings for wood of 5% to 30% and 0 to 100 comparative for all other materials.
- Large, clear, easy to read display
- Hold Function enables user to "freeze" the reading. Useful for taking readings when the meter face is not visible.
- Switch-able "On" or "Off" audio warning tone.
- Automatic Power Cut-off switches "Off" when not in use.
- Automatic Default to last user setting when switched back on. Battery operated (included).

How It Works

The **MRH** operates on the principle of electrical impedance measurement to give accurate non-destructive moisture readings in wood, masonry, roofing, drywall, ceramic tiles and other construction materials. The electrical impedance of a material varies with its moisture content. The electrical impedance is measured by creating a low frequency alternating electric field between the electrodes as illustrated below. This field penetrates the material under test. The very small alternating current flowing through the field is inversely proportional to the impedance of the material. The instrument detects this current, determines its amplitude and derives the moisture content which is displayed by the instrument.



In Hygrometer mode, the **MRH** determines the capacitance of the RH probe sensor which varies with the relative humidity of the testing environment. The MRH displays this capacitance as percentage relative humidity (%RH).

Moisture content or humidity readings are instantly displayed on its

clear easy to read LCD.



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Features

- Instant non-destructive moisture measurement of wood, plaster, drywall block, ceramic tile, brick, roofing and most materials found in the building envelope.
- Optional intelligent Humidity probe which plugs into the **MRH** converting it to a most versatile digital hygrometer allowing Humidity measurement of the building environment and components such as flooring to comply with ASTM F 2170-02 and ASTM F2420-05, BS5325: 2001 and BS 8203:2001.
- Deep signal penetration up to 30mm to detect elevated moisture through most covering materials such as Porcelain or Ceramic tile, Drywall, Carpet, Vinyl Flooring, VCT tile, Floor Laminates, Wall Coverings, Roofing Membranes without having to damage or puncture the material being tested.
- Easy to read display giving meaningful readings.
- Hold function enables user to “freeze” the reading where the meter face may not be visible.
- High Moisture Audio Warning Tone that can be switched on or off.

Technical Specifications

Moisture Content Measuring Method:	Non-destructive impedance
Measurement Range:	3% to 40% Wood. 0 to 100 Comparative
Electrodes:	Direct contact co-planer conductive rubber
Dimensions:	150mm x 80mm x 35mm
Humidity measuring method:	Capacitive
Range:	5% RH to 98% RH

A complete Kit for Moisture Testing of Wood, Drywall, masonry, Roofing and other Construction Materials with Plug-In probes for Measuring Humidity and Wood Moisture Content



MRH Non-destructive moisture testing mode

The MRH is a digital display version of the Tramex Moisture Encounter MEP hand-held electronic impedance moisture meter. It operates on the principle of non-destructive impedance measurement. Parallel co-planer electrodes are mounted on the base which, during operation, transmit a low-frequency signal into the material under test. To carry out moisture tests simply press the MRH firmly against the surface being tested and take a reading. There is no surface damage and the reading is immediate. The MRH has 5 different measurement scales Wood, Roofing, Masonry, Drywall and Laminate.



Wood Moisture Pin Probe Pin-type resistance mode

PIN PROBE mode is extremely easy to use, simply select the Pin Probe using the > key on the MRH instrument. Insert either the Tramex Hand probe or Hammer Probe directly into the socket at the top of the instrument. The pin probe gives accurate readings in 0.1% increments over the entire measurement range. Readings are displayed on the LCD of the MRH. The Pin Probe offers a most practical and accurate way of determining that wood is at the correct moisture level for its intended use, proving to be a vital tool for good quality control of wood flooring and other wood applications.



Relative Humidity (RH) Probe Hygrometer mode

When the Tramex RH Probe is plugged into the MRH, it automatically changes to Hygrometer Mode. The Tramex RH Probe provides the ideal solution for Measurement of Humidity, Temperature and Dew-point in structural material such as concrete flooring, walls etc as well as the environment conditions within the building or structure. Humidity readings are displayed in both percentage Relative Humidity (%MRH) and mixing ratio (grains/lb or grams/kg). The solid state capacitive sensor in the RH probe gives accurate, fast results. Allows testing of concrete slabs using the In situ (ASTM F 2170) or RH hood (ASTM 2420, BS 5325 A BS 8203) methods.



MRH Test Kit

The standard MRH Kit comes in a carrying case with die-cut foam lining and contains the following: MRH, Hand Probe, Relative Humidity Probe, IR Surface Thermometer (Kit shown with optional Hammer Probe)

This kit is of particular significance to inspectors, surveyors and technical field staff who wish to avoid the damage and risks associated with excess moisture

