



# Moisture Meters

for measuring the dampness in buildings



ETI manufactures a range of portable, pin-type (resistance) moisture meters for both the professional and the craftsman. Pin-type moisture meters are acknowledged as a reliable way to obtain percentage moisture readings in a wide range of building materials. The relationship between moisture content and electrical resistance provides consistent and accurate results over the range of 4 % to the fibre saturation point, which is approximately 30 %, dependant on the material.

## WME - wood moisture equivalent

ETI moisture meters are calibrated for wood but are also suitable for measuring other building materials. When testing wood, the instruments measure the actual percentage moisture content. However, when testing other building materials, the instrument measures the WME value of the material. The WME is the moisture level that would be attained by a piece of wood in equilibrium with the material being tested. As the critical moisture levels for wood are known, the WME measurements enable the moisture meter user to establish if materials are in a dry, borderline or damp condition.

## building materials

Some moisture is unavoidable and may even be necessary in certain building materials, but too much can cause mould, decay and other problems. ETI moisture meters are cost-effective instruments that can easily determine moisture levels - allowing the user to diagnose problems and make informed decisions with regard to remedial actions.

## problems in measuring moisture

The main problems arise from the 'structure' of the material being tested, in particular, the presence of other conductive material that can effect the reading. Therefore when measuring the moisture content of a material it is important to appreciate a number of factors:

- surrounding environment
- density of the material
- grain size or direction
- ability of a material to absorb moisture

## why measure moisture in floors & walls?

Many flooring materials use water-based adhesives, which are more likely to fail today than the older, traditional, solvent-based adhesives. Moisture can cause laminates to fail, tiles to lift and hardwood floors to warp or split. A newly poured concrete floor slab is usually the slowest-drying element of a building. Therefore it is important to measure the moisture content accurately to ensure a successful floor.

Measuring the moisture content of walls is a traditional method for locating damp and other related problems, i.e. damaged pipework, breached damp-proof courses etc. It is important to ascertain the cause of the dampness, i.e. rising damp, penetrating damp or condensation before any remedial action is undertaken.

## 7150 Moisture Meter

### for monitoring moisture levels in timber

- ✓ ideal for checking the moisture in a variety of woods
- ✓ supplied with a probe, protective wallet & 50 spare pins

The 7150 is a compact timber moisture meter designed to be used by building professionals and tradesmen to check the moisture level in timber for moisture content diagnosis. The timber moisture meter incorporates a range of design features that make it simple to use and easy to read.

The analogue meter incorporates three colour-coded scales, wood scale 1 and 2 that indicate the moisture content of wood - 6 to 30 % (tables of wood groups are supplied for both scales). A reference scale of 1 to 10 is included for comparison readings without reference to a particular % moisture content.

Scale 1 - calibrated from 15 to 30 % moisture content

Scale 2 - calibrated from 6 to 16 % moisture content

Scale 3 - reference scale calibrated from 1 to 10

For alternative probes available, see page 96.

order code	description
224-073	7150 timber moisture meter
602-530	spare pins (50)
830-207	protective PVC boot

specification	7150 moisture meter
range scale 1	15 to 30 %
scale 2	6 to 16 %
scale 3 (linear)	1 to 10
accuracy	±3 %
battery	9 volt PP3
battery life	120 hours
sensor type	resistance probe (12.7 mm spacing)
dimensions	36 x 80 x 147 mm
weight	190 grams



## 7200 Moisture Meter

### for monitoring moisture in plaster/concrete

- ✓ general purpose building moisture meter
- ✓ supplied with a probe, protective wallet & 50 spare pins

The 7200 is a compact, easy to use, general purpose, building moisture meter designed to be used by building professionals and tradesmen to check the moisture level of building materials (plaster and concrete) for moisture content diagnosis.

The colour-coded analogue meter indicates high or low levels of WME % moisture content of plaster or concrete over the range of 4 to 20 %. A reference scale of 1 to 10 is also included for comparison readings without reference to a particular percentage moisture content.

Scale 1 - calibrated from 8 to 20 % moisture content

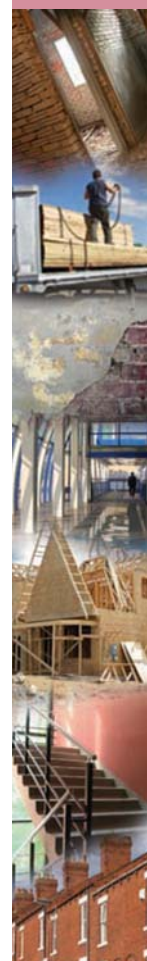
Scale 2 - calibrated from 4 to 14 % moisture content

Scale 3 - reference scale calibrated from 1 to 10

For alternative probes available, see page 96.

order code	description
224-072	7200 building moisture meter
602-530	spare pins (50)
830-207	protective PVC boot

specification	7200 moisture meter
range scale 1 (plaster)	8 to 20 %
scale 2 (concrete)	4 to 14 %
scale 3 (linear)	1 to 10
accuracy	±3 %
battery	9 volt PP3
battery life	120 hours
sensor type	resistance probe (12.7 mm spacing)
dimensions	36 x 80 x 147 mm
weight	190 grams



# 7000 Moisture Meter

for timber & general building materials

- ✓ five scales - concrete, plaster, two timber & reference
- ✓ colour-coded scales for ease of reading

The 7000 is ideal for assessing the moisture content in buildings. The unit can be used for making rapid moisture assessments in a wide range of building materials including wood, brickwork, plaster and concrete. The instrument is housed in a flip-top polypropylene case and incorporates a clear analogue meter that has five colour-coded scales:- wood 1, wood 2, plaster, concrete and a reference scale.

Each unit is supplied with a remote 2-pin moisture probe with a one-metre PVC connecting lead and 50 spare pins. For full details of the probes available, see below.



specification	7000 moisture meter
range scale 1 (wood 1)	14 to 30 %
scale 2 (wood 2)	15 to 30 %
scale 3 (plaster)	8 to 20 %
scale 4 (concrete)	5 to 14 %
scale 5 (linear)	1 to 10
accuracy	±3 %
battery & battery life	9 volt PP3 alkaline - 120 hours
sensor type	resistance probe (12.7 mm spacing)
dimensions	58 x 127 x 195 mm
weight	448 grams (including probe)

order code	description
224-070	7000 moisture meter
602-530	spare pins (50)

## Moisture Probes

for use with 7000, 7150 & 7200 moisture meters

		order code
<p><b>general purpose probe</b></p> <p>26 x 33 x 60 mm overall</p>	This standard, general purpose, two-pin (12.7 mm spacing) moisture meter probe is ideal for measuring moisture in a variety of building materials. Supplied with a one metre PVC lead and BNC connector.	180-160
	Spare pins Ø1.2 x 7 mm (fitted) pack of 50	602-530
<p><b>heavy duty hammer probe</b></p> <p>Ø40 x 290 mm overall</p>	This hammer probe is designed for measuring moisture in wood and similar materials. The pin's insulated shanks ensure the measurements are taken at the pin tip, allowing varying depth measurements. Supplied with a one metre PVC lead and BNC connector.	180-170
	Spare standard pins Ø2.4 x 30 mm (fitted) pack of 10	602-537
<p><b>deep wall probe</b></p> <p>Ø3.3 x 150 mm overall</p>	This insulated deep wall probe measures moisture deep within walls, regardless of surface dampness. The insulated shanks should be inserted into pre-drilled holes. Each pair of probe assemblies is supplied with a one metre PVC lead and BNC connector.	180-180
	Spare standard probes Ø3.3 x 130 mm (pack of 2)	602-539

# 8040 Multi Purpose Moisture Meter

## complete with air temperature measurement

- ✓ easy-to-read backlit display
- ✓ displays ambient air temperature
- ✓ ten minute auto-power off function
- ✓ seven scales for different building materials



The 8040 is a compact general purpose moisture meter designed to be used by building professionals and tradesmen to check the moisture level in a variety of construction materials. The timber moisture meter incorporates a range of design features that make it simple to use and easy to read.

The digital meter incorporates seven scales as listed below:-

Scale 1 - hard wood	8.9 to 95.7 %
Scale 2 - soft wood	7.1 to 80.0 %
Scale 3 - plaster	1.0 to 2.5 %
Scale 4 - anhydrite	0.0 to 3.3 %
Scale 5 - cement mortar	0.7 to 3.8 %
Scale 6 - lime mortar	0.5 to 7.4 %
Scale 7 - bricks	0.0 to 23.4 %

The moisture meter simultaneously displays both the moisture content of the material and the ambient air temperature over the range of -9.9 to 49.9 °C.

The 8040 moisture meter is powered by three 1.5 volt AAA batteries that give a minimum of 250 hours battery life. The instrument will power off automatically after ten minutes, maximising battery life.

Accurate monitoring of building materials ensures best practice in the construction industry. The 8040 moisture meter is an essential tool for flooring surveyors, building and construction engineers.



specification	8040 moisture meter
range Scale 1	8.9 to 95.7 %
Scale 2	7.1 to 80.0 %
Scale 3	1.0 to 2.5 %
Scale 4	0.0 to 3.3 %
Scale 5	0.7 to 3.8 %
Scale 6	0.5 to 7.4 %
Scale 7	0.0 to 23.4 %
temperature range	-9.9 to 49.9 °C
resolution	0.1 % or 0.1 °C/°F
accuracy	±2 % or ±1 °C
battery	3 x 1.5 volt AAA alkaline
battery life	250 hours continuous use
sensor type	resistance probe
dimensions	30 x 60 x 121 mm
weight	180 grams

order code	description
825-600	8040 moisture meter

