

# MoistureFinder



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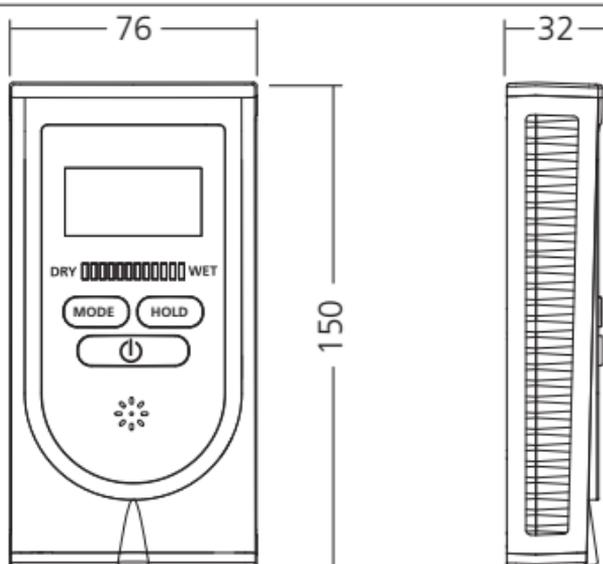
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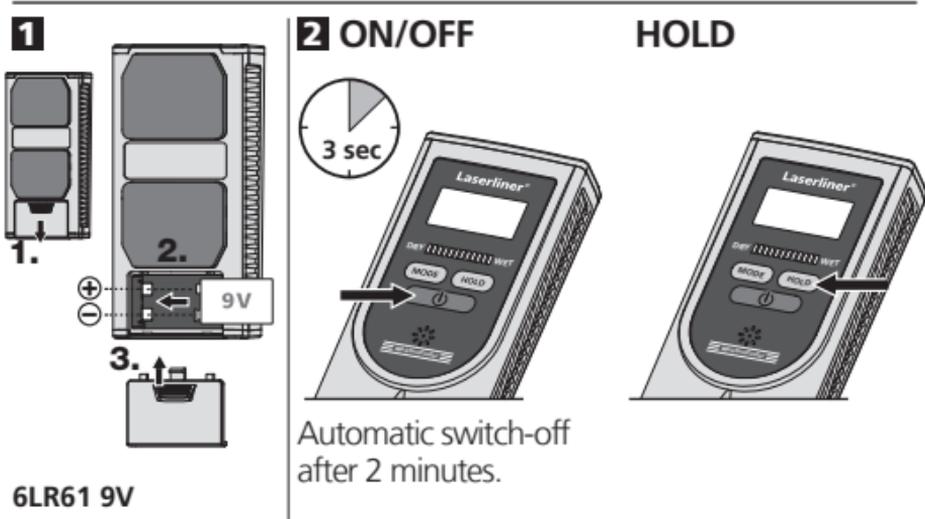
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**Function/application:**

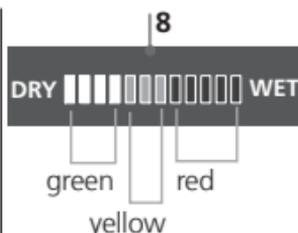
This material moisture measuring device operates on the impedance measuring principle. Moisture-dependent permittivity of the material is measured between 2 conductive rubber contacts on the underside of the device and this measured value is recalculated internally into % of material moisture based on the material-dependent characteristic. The intended purpose of the device is the non-destructive assessment of moisture content in wood, screed and plaster.



- 1** ON/OFF
- 2** Hold current measurement
- 3** Material setup/ switchover



- 4** Selected material characteristic
- 5** Battery charge
- 6** Present measurement is retained
- 7** Measured value in % of relative material moisture



- 8** Wet/dry LED display
- 12-position LED:
- 0...4 LEDs green = dry
  - 5...7 LEDs yellow = moist
  - 8...12 LEDs red = wet

## 3 Application notices

- place the conducting contacts completely on the material to be measured, pressing slightly if necessary to achieve good contact
- measured surface should be free of dust and dirt
- keep at least a 5 cm distance from metal objects
- metal pipes, electric lines and reinforcing steel can falsify measurement results
- make measurements at several locations on the surface

## 4 Material characteristics

This instrument has 4 selectable material characteristics. Before making a measurement, press the **MODE** button to select the appropriate material.



Screed	cement screed CT - C30 - F4 (DIN EN 13813)
Plaster	gypsum plaster (machine plaster)
Soft-wood	low-density woods: e.g. spruce, pine, limewood, poplar, cedar, mahogany
Hard-wood	higher-density woods: e.g. beech, oak, ash, birch

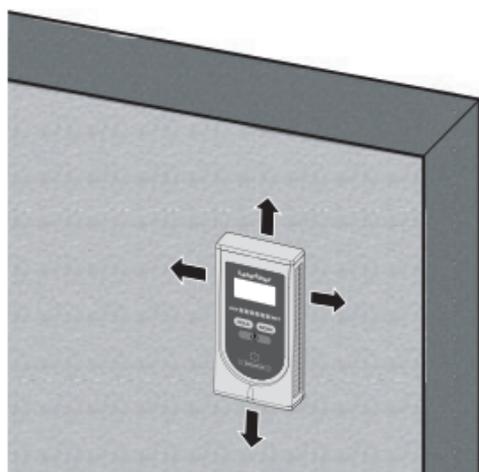
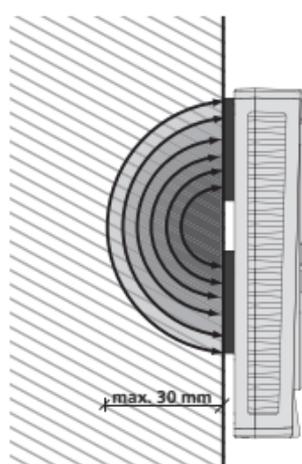
## 5 Wet/dry LED indicator

In addition to numeric measurement display in % of relative material moisture, the LED display also provides a material-dependent evaluation of moisture. The LED display bar becomes larger, from left to right, with increasing moisture content. The 12-position LED display is subdivided into 4 green (dry), 3 yellow (moist) and 5 red (wet) segments. Wet material causes an additional acoustic signal.



The classification „dry“ means that materials in a heated room have reached a balanced moisture level and are thus suitable for further processing.

## 6 Determining material moisture



Due to the differing constitution and composition of materials, specific application notices are to be followed for their moisture assessment:

### **Screed:**

This device also measures through tiles, linoleum, vinyl and wood but these coverings will influence the measurements. The resulting value is therefore to be viewed as a relative value to localise moisture and moisture paths.

### **Plaster:**

This device also measures through wallpaper and paint but not through metal (foils). Though measurements may be influenced, the moisture in walls can be readily tracked by moisture differences such that conclusions can be made with respect to damage, for example, to insulation, vapour barriers or masonry.

### **Softwood / hardwood**

The measurement should be made with the length of the device in parallel with the grain of the wood. The measured depth in wood is 30 mm maximum but does vary somewhat with differing wood densities. Measurements made on thin wood boards should, if possible, be made on a stack of these boards as otherwise the measurement will be too low. Measurements made on installed wooden structures are influenced by the structural conditions and their chemical treatments (e.g. paints) with various materials. Thus such measurements should only be viewed relatively. Nevertheless, the differences in moisture distribution are very good for localising moist places as an indication of damage, e.g. in insulation.

# MoistureFinder

Greatest accuracy is reached between 6 % and 30 % material moisture. In very dry wood (< 6 %) irregular moisture distribution can be detected, in very wet wood (> 30 %) saturation of the wood fibres begins. Material relative moisture reference values, in %, for use with wood:

– Outdoor usage:	12 % ... 19 %
– Use in unheated rooms:	12 % ... 16 %
– In heated rooms (12 °C ... 21 °C):	9 % ... 13 %
– In heated rooms (> 21 °C):	6 % ... 10 %

## Example:

100% material moisture for 1 kg of wet wood = 500 g water.

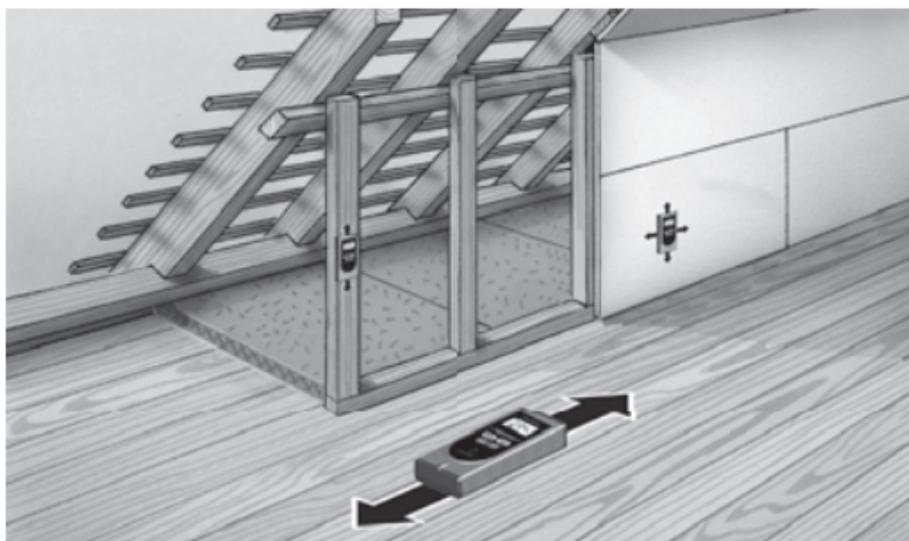
**!** Functional and operational safety is only warranted when the instrument is operated within the specified climatic conditions and is only used for those purposes for which it is designed. The assessment of measurement results and actions taken as a consequence lie in the user's scope of responsibility, depending on the given type of work.

## Technical data

Technical revisions reserved. 03.10

Measurement principle	Impedance measuring principle via integrated rubber electrodes
Material characteristics	2 building materials characteristics
Measurement range / accuracy	2 wood characteristics Cement screed: 0 %...4.5 % / $\pm 0.5$ % Plaster: 0 %...9 % / $\pm 0.5$ % Soft wood: 0 %...52 % / $\pm 2$ % (6 %...30 %) Hardwood: 0 %...32 % / $\pm 2$ % (6 %...30 %)
Permissible operating temperature	0...40 °C
Permissible storage temperature	-10 °C...60 °C
Permissible max. relative humidity	85 %
Power supply	1 x 6LR61 9 V
Battery service life	30 h continuous measurement
Automatic switch-off	after 2 min.

Further safety and supplementary notices at: [www.laserliner.com/info](http://www.laserliner.com/info)



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