

Moisture Meter GM11 for Snow

Operating Manual

Description:

The electronic moisture meter Gm11 is used to determine in a matter of seconds the moisture in materials. The average moisture, down to a depth of approx. 3 cm is measured.

measuring range:	0 - 100 %
materials :	snow
min. snow thickness:	5 cm
working temperature range:	- 10 °C til 40°C
storing temperature range:	- 20 °C til 70°C

Method of Operation:

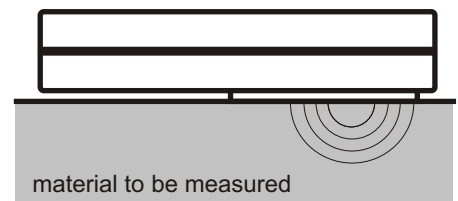
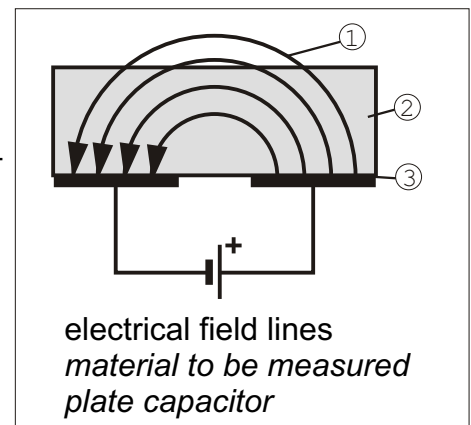
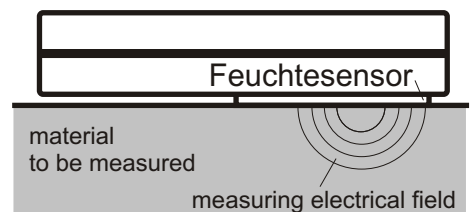
The measuring plate is pushed during the measuring process on the material to be measured, so that a high frequency electrical field is able to pass through the material. A micro processor receives the measured signals and determines from the measured value the percentage water content.

Measuring Principle:

The meter works in accordance with the principle of an opened plate capacitor. The capacity of the capacitor depends on the material-(dielectric)-constant of the material in between the plates. Compared with air ($\epsilon_r = 1$), for example water has a very high dielectric-constant ($\epsilon_r = 80$). The water content of a wet material can therefore be determined by determining the dielectric constant of this material.

Measurement Preparation:

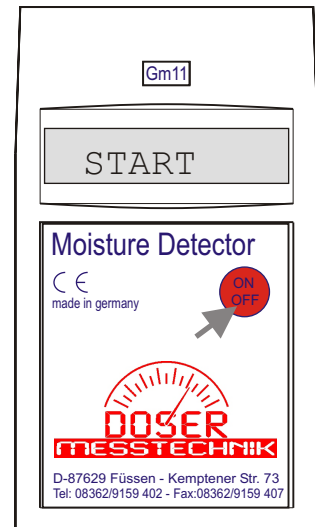
- look for an even, smooth surface,
minimum size for the measurement 8 x 12 cm
- minimum distance of the electrodes
from the edge of the surface: 1 cm



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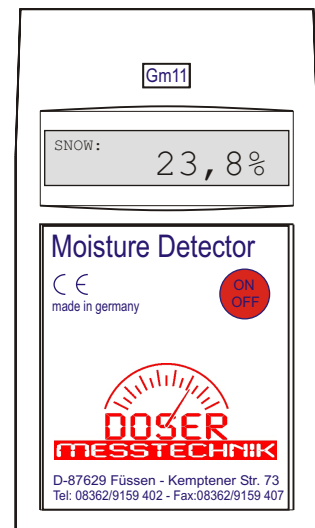
Switching on:

- press ON/OFF button,
the display shows „START“
Hold the instrument into the air for automatic zero point measurement and correction, if the zero point is not in the valid range, the display shows “ZERO-ERROR”
- release "ON/OFF" button, the meter is turned off



Material Moisture Measuring:

- switch the meter on,
- put the meter with the sensor plate on the material, without air gaps in between
- read off the moisture.



Switching Off:

- press the ON/OFF button, "key" will be shown in the display
- release "ON/OFF" button, the meter is turned off

Battery:

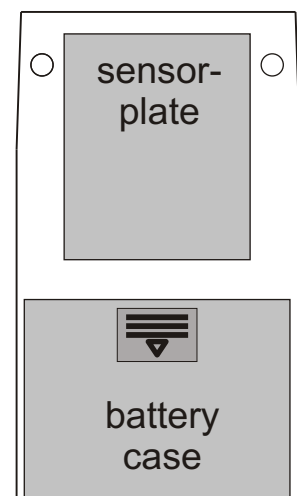
If the battery is running low, the display shows “BAT”

- move the battery case lid in direction of the arrow and open the battery case.
- take out the old battery
- insert the new battery, observing the right polarity!
- close the battery case

Attention!

In accordance with battery legislation, all used batteries must be disposed off in special battery collecting bins.

The disposal of old or used batteries as part of normal waste is not allowed!



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Input value:

For calibration measurements or for comparing measurement with high resolution we recommend to adjust the instrument to: "Input value"

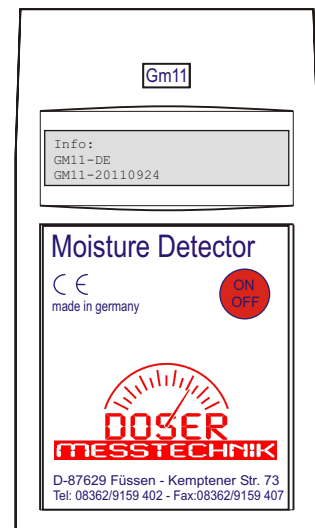
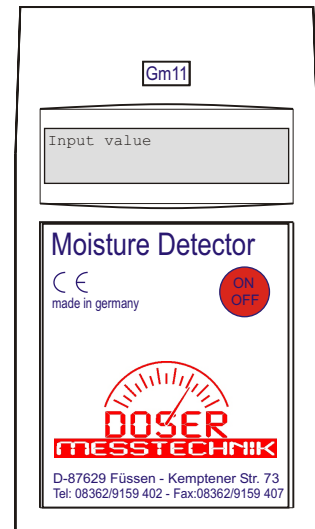
Press ON/OFF button, hold it pressed till the "Input value" will be displayed, release the button.

The instrument is now showing the input values.

Through pressing the ON/OFF-button till "material moisture" will be displayed the instrument shows the material moisture values again.

Info:

Through pressing the ON/OFF-button till "info" will be displayed the instrument shows the software version.



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Safety Tips:

- follow the operating instructions
- only use the meter as directed (see page 1)
- keep the meter away from live and current electrical parts
- avoid impacts
- protect the meter from heat
- keep the meter dry and try to prevent dirt from entering the case
- protect the meter from electrostatic discharge.
- the meter must be repaired or serviced only by qualified specialists

Damages caused by failure to follow the above Safety Tips are not covered by the warranty !



Our operating instructions are intended for guidance and to provide information on our products and their uses. They should not be taken to imply special characteristics or suitability for any specific purpose, other than those stated.

We constantly work to improve our products and reserve the right to alter our products and operating instructions without advanced notification.

