

## PRECISION MATERIAL MOISTURE MEASURING DEVICE FOR WOOD, BUILDING MATERIALS, STRAW, HAY, PAPER, TEXTILES, ETC.



466 WOOD TYPE CHARACTERISTICS  
28 CONSTRUCTION MATERIALS

## HIGHLIGHTS:

- serial interface or analog output 0 ... 1 V, freely scalable
- 4 programmable characteristics (GMH 3851)
- incl. calibration protocol

## ADDITIONAL FUNCTIONS GMH 3851:



Conform to  
EN 14080 : 2013 EN 16351 : 2015  
Suitable e.g. for glued timber construction and  
laminated timber (MPA certified and listed)

## GMH 3831

Art. no. 609289

Resistive material moisture and temperature measuring device, w/o accessories

## GMH 3851

Art. no. 602009

Resistive material moisture and temperature measuring device, w/o accessories, with data logger and programmable characteristic curves memory

## General:

The GMH 3831 and GMH 3851 offer decisive advantages in handling, user-friendliness, functional range and accuracy. The absolute moisture of 494 material types is displayed directly and can be automatically converted to water content. The cumbersome usage of calculation tables becomes a thing of the past. Additionally you get a moisture rating (wet ... dry) of the measured material.

## Application:

Precision measurements in cut-wood, chip board, veneer, sawdust, wood chips, wood wool, flax, straw, hay, concrete, bricks, wash floor, plaster, limestone mortar, cement mortar, paper, carton, textiles, wood chips, professional firewood humidity measurement, etc.

## User:

architect, expert, inspector, building contractor, painter, carpenter, parquet joiner, floor tiler, wood works, timber desiccation plant, building repair company, textile industry etc.

## Specifications:

## Measuring principle

**Moisture:** Resistive material moisture measurement acc. to DIN EN 13183-2:2002

## Temperature

**external:** thermocouple, NiCr-Ni (type K)

**internal:** NTC

**Characteristic curves:** 494 material characteristics

## Measuring range:

**Moisture:** 0.0 ... 100 % u (material moisture)  
0.0 ... 50 % w (water content, wet basis)  
(depends on selected characteristic)

**Temperature:** -40.0 ... +200.0 °C (-40.0 ... +392.0 °F)

**Moisture rating:** 9 steps (dry ... wet)

**Resolution:** 0.1 % or 0.1 °C (0.1 °F)

## Device accuracy: (at nominal temperature)

**Wood:** ±0.2 % material moisture (deviation from corresponding characteristic curve in range 6 ... 30 %)

**Building material:** ±0.2 % material moisture  
(deviation from corresponding characteristic curve)

**Temperature:** (external) ± 0.2 % of m.v. ± 0.3 °C

**Temperature compensation:** automatic or manual

## Sensor connection:

**Moisture:** BNC

**Temperature:** thermovoltage-free type K (NiCr-Ni) socket

**Permitted working temperature:** -5 ... +50 °C (not frozen)

## Display:

two 4-digit LCD displays (12.4 mm and 7 mm high), additional indicator arrows

## Output:

3-pole jack connector Ø 3.5 mm, either with serial interface or analog output

## Serial interface:

connectable to RS232 or USB interface of PCs via electrically isolated interface converter GRS 3100, GRS 3105 or USB 3100 N (accessories).

## Analog output:

0 ... 1 V, freely scalable

## Average value:

of 3 measurements, e.g. for professional firewood moisture measurements

## Power supply:

9 V battery, additional socket for external 10.5 ... 12 V direct current power supply (adequate PSU: GNG10/3000).

## Battery life:

approx. 120 h

## Housing:

Impact-resistant ABS plastic housing, membrane keyboard, transparent panel, integrated pop-up clip

## Dimensions:

142 x 71 x 26 mm (H x W x D)

## Weight:

155 g

## Scope of supply:

Device, battery, calibration protocol, manual

## additional functions GMH 3851:

**User specific characteristics:** 4, freely programmable

**Interpolation points per curve:** 20

By means of the gratis software GMHKonfig the interpolation points can be comfortably edited and stored to the instrument (Required accessories: interface converter)

**Sort** limitation of different materials (up to 8)

## Data logger:

This instrument is essential for the documentation of material state by quality assurance systems, etc. By means of the integrated data logger there can be up to 10.000 measuring values recorded and processed on demand. Additionally it is possible to individually program 4 material curves (e.g. with dry oven or CM-method). This instruments finally makes paper correction tables unnecessary.

Logger function

- manual:

99 data sets (fetch data via buttons or interface)

- cyclic:

10.000 data sets (fetch data via interface)

adjustable cycle time: 1 s ... 1 h

The logger is started or stopped by keypad or interface. The software GSOFT3050 (see accessories) is available for comfortable read-out of logger data.

## Accessories and spare parts:

## GSOFT 3050

Art. no. 601336

Logger operation software

## GRS 3100

Art. no. 601097

RS232 interface converter

## USB 3100 N

Art. no. 601092

Interface converter

additional accessories: see next page