

## Measuring material moisture with data logger and user programmable material curves



Resistive material-moisture meas. device

### GMH 3850 with data logger

This instrument is indispensable for the documentation of material state by quality assurance systems.

By means of the integrated data logger there can be recorded up to 10000 measuring values and processed on demand. Additionally there can be 4 material curves individually programmed by the user to data acquired by reference measurings with dry ovens or CM-method.

This instruments finally makes the usage of paper correction tables and so on obsolete.

#### Specification:

##### Measuring principle:

moisture: resistive material-moisture-measuring matching DIN EN 13183-2:2002  
temperature external: thermocouple, NiCr-Ni (type K)  
temperature internal: NTC

Characteristic curves: 498

##### Sensor connection:

moisture: BNC  
temperature: flat pin plug (free of thermo-voltage)

Identical technical data like GMH3830 plus following features:

##### Logger functions:

-manually: 99 data sets (visualisation via keys/ display or interface)

-cyclic: 10000 data sets (visualisation via interface)

-adjustable cycle time: 30sec ... 1h

Logger start and stop via the keyboard or interface. Comfortable read-out and display software (GSOFT3050) available as additional equipment.

Real-time clock: clock with date and year

User curves: 4, programmable via interface  
20 interpolation points per curve

By means of the gratis software GMHKonfig the interpolation points can be comfortably edited and stored to the instrument. To connect the instrument to a PC one of the interface converters mentioned below is needed.

#### Accessories:

SET 38 HF wood moisture set

SET 38 BF wood and building material moisture set

GSOFT 3050 logger software

GRS 3100 RS232 interface converter

USB 3100 USB interface converter

GKK 3500 case (394 x 294 x 106 mm)

with punched lining for device of the GMH3xxx-series

miscellaneous accessories p.r.t. pages 38, 39

## The handy alternative for wood and building material moisture measuring



Resistive material-moisture meas. device

### GMH 3810 with integrated measuring pins

The measuring pins integrated on the reinforced front numerous measurings can be done without additional accessories.

For measuring of very hard materials we suggest the components shown at the accessories section.

#### Specification:

##### Measuring principle:

moisture: resistive material-moisture-measuring matching DIN EN 13183-2:2002  
temperature internal: NTC

Characteristic curves: 494

##### Measuring range:

moisture: 0,0 to 100,0 % moisture content (depending on characteristic curve)  
temperature: -40,0...+200,0°C (-40,0...+392,0°F)

Estimation: in 9 steps (dry ... wet)

Resolution: 0,1% resp. 0,1°C (0,1°F)

Accuracy device: (at nominal temperature = 25°C)

wood: ±0,2 % moisture content (deviation from characteristic curve at range 6...30%)  
building mat.: ±0,2 % moisture content (deviation from characteristic curve)

Temperature compensation: automatically or manual

Measuring probe: 2 pin holders M6\*0.75 with 19mm pins (12mm utilisable)

Perm. working temperature: -25 to 50°C

Storage temperature: -25 to +70°C

Relative humidity: 0 to +95%RH (non-condensing)

Display: two 4-digit LCDs

Power supply: 9V-battery, type IEC 6F22

Power consumption: approx. 2.5 mA

Dimensions / Weight: 142 x 71 x 26mm, 175g

Housing: Impact-resistant ABS plastic housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip

Functions: Hold, Auto-Hold, Sort, Auto Power Off (description refer to GMH3830)

#### Accessories:

GST 3810 replacement pins (10 pcs.)

GMK 3810 measuring cable incl. adapters

GSE 91 impact electrode

for additional accessories p.r.t. page 16

GKK 3000 case (275 x 229 x 83 mm) with punched lining for device of the GMH3xxx-series

GB 9 V spare battery

miscellaneous accessories p.r.t. pages 38, 39

## Capacitive moisture detection without damaging of material up to 4 cm of depth



Indicator for moisture in wood and buildings

### GMI 15

Device for high-speed determination of moisture in buildings, contracting work etc.

The GMI 15 allows detection of moisture in wood down to a depth of approx. 3 cm and in concrete or wash floor down to a depth of approx. 4 cm. Detection of moisture behind ceramic tiles and/or various wall or floor coverings.

To check moisture simply place device on the surface to be measured - no injection into the measuring object required.

#### Application e.g. for:

- estate agents (for fast control state of buildings)
- property management, house owners
- architects
- building experts
- building contractors
- mobile homes (moist in insulations)
- polyester / gfk boats

#### Specification:

Display: 3½-digits, 13mm high LCD

Power supply: 9V-battery (type IEC 6F22)

Power consumption: approx. 5mA

Low battery warning: „BAT“ displayed automatically in case of low battery.

Working temperature: 0 to 50°C

Storage temperature: -20 to +70°C

rel. humidity: 0 to 80 %RH (non-condensing)

Housing: Impact resistant ABS plastic housing, approx. 106 x 67 x 30 mm (H x W x D).

Weight: approx. 150 g (ready for use)

##### Display range:

concrete / floor pavemet

0 ... 5 = dry

6 ... 9 = humid, normal humidity level

10 ... = wet

wood / fiber glass reinforced polyester

0 ... 3 ~ 0...12% : dry

3 ... 6 ~ 12...20% : air-dry

6 ... 11 ~ 20...30% : wind-dry

11 ... ~ 30% ... : wet

*"an easy to use but very effective device"*

**Note:** The GMI15 is an indicator for fast the estimation - it does not replace precision instruments like the GMH3810, GMH3830 and GMH3850