

Precision Material Moisture Meas. Device

for wood, building material, straw, hay, paper, textiles etc.



- 466 wood characteristic curves
- 28 building material characteristic curves
- moisture estimation
- display of moisture content u or wet-basis moisture content w
- external temperature probes connectable
- serial interface or analog output 0-1V, freely adjustable
- incl. calibration protocol

Additional functions of the GMH 3850

- 2 integrated logger functions
- 4 programmable user curves
- Real-time clock

MPA certified
appr. for glued timber construction
acc. to DIN 1052-1

GMH 3830 Resistive material-moisture and temperature measuring device, access. not included

GMH 3850 Resistive material-moisture and temperature measuring device, access. not included with data logger and user programmable material curves

Description:

the GMH3830 offers important advantages in handling, user-friendliness, functional range and accuracy for your metrological work.

The absolute moisture content of 494 materials is displayed directly. The cumbersome usage of calculation tables now is history. Additionally you get a evaluation of your material state (wet/dry) of nearly all materials instantly. Of course the formerly used wood groups A, B, C and D of the predecessor models are further more supported.

General application:

precision measurements in cut wood, chip board, veneer, sawdust, wood chips, wood wool, flax, straw, hay, concrete, gas concrete, bricks, wash floor, cast, limestone mortar, cement mortar, paper, carton, textiles etc.

User:

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

Datalogger (only GMH 3850):

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 to acquire data by reference measurements with dry ovens or CM-method. This instruments finally makes paper correction tables useless.

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: 494

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)

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

building mat.: ±0,2 % moisture content (deviation from characteristic curve)

temperature (external): ±0,5% v. MW ±0,3°C

Temperature compensation:

automatically or manual

Sensor connection:

moisture: BNC

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

Perm. working temperature: -25 to 50 °C

Display: two 4 digit LCDs (12.4mm or 7mm high), as well as additional arrows.

Pushbuttons: 6 membrane keys

Output: 3-pin jack connector Ø3.5mm, choice between serial interface or analog output

- serial interface: direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS 3100 or GRS 3105 resp. USB 3100 N (p.r.t. accessories).

- analog output: 0...1V, freely adjustable

Power supply: 9V-battery, additional d.c. connector for external 10.5-12V direct voltage supply (suitable power supply: GNG10/3000).

Power consumption: approx. 2,5 mA

Dimensions / Weight: 142 x 71 x 26 mm, 155 g

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

Functions:

Hold, Auto-Hold (automatic freezing of a constant value), Low battery warning (⚠ and ' bAt '), Sort (limitation of the choice of materials to up to 8 favourites), Auto Power Off

Specification (only GMH 3850):

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 day, month 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:

GSOFT 3050 logger software

GRS 3100 RS232 interface converter

USB 3100 N interface converter

GKK 3500 case (394 x 294 x 106 mm)

for additional accessories p.r.t. page 25
miscellaneous accessories p.r.t. pages 60 - 62