Precision Material Moisture Meas. Device

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

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

- **465 wood characteristic curves**
- **28 building material characteristic curves**
- **moisture estimation**
- **external temperature probes connectable**
- **seriell interface or analog output 0-1V, freely adjustable**
- **Future-proof via updates**

Description: the GMH3830 was designed completely new and now offers important advantages in handling, user-friendliness, functional range and accuracy for your metrological work.

The absolute moisture content by weight of 493 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.

Resistive material-moisture and temperature measuring device

GMH 3830 access. not included

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, insulating material etc.

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

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: 493

Measuring range:
moisture: 4,0 to 100,0 percent by weight (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 % by weight (deviation from characteristic curve at range 6...30%)
building mat.: ±0,2 % by weight (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)

Nominal temperature: 25°C

Perm. working temperature: -25 to 50°C

Storage temperature: -25 to +70°C

Relative humidity: 0 to +95%r.F. (non-condensing)

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 seriell interface or analog output
- seriell interface: direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS3100 or GRS3105 resp. USB3100 (p.r.t. accessories).
- analog output: 0...1V, freely adjustable

Power supply: 9V-battery, type IEC 6F22 (included) as well as additional d.c. connector for external 10.5-12V direct voltage supply (suitable power supply: GNG10/3000).

Low battery warning: ⚠ and ' bAt '

Power consumption: approx. 2.5 mA

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

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

Functions:

Hold: freezing of the current measuring value on key-press

Auto-Hold: automatic freezing of a constant value

Sort: limitation of the choice of materials to up to 8 favourites

Auto Power Off: 1...120min, can also be deaktivated

Accessories:

SET 38 HF (Wood moisture set)

contents:
GKK3500 (case), GMK 38 (measuring cable), GSE 91 (impact electrode), GST 91 (steel nails), GTF38 (temperature probe)

SET 38 BF (Wood a. building material moisture set)

contents: GKK3500 (case), GMK 38 (measuring cable), GSE 91 (impact electrode), GST 91 (steel nails), GTF38 (temperature probe), GMS300/91 (measuring pins), GBSK91 (brush-type probe), GLP 91 (conducting paste)

GRS 3100 RS232 interface converter

USB 3100 USB interface converter

GB 9 V spare battery

GNG 10 / 3000 power supply

miscellaneous accessories p.r.t. pags 34, 35

Accessories, spare parts:

GMK 38
measuring cable (BNC to 2 x banana plug) approx. 90cm long

GHE 91
reciprocating piston electrode

GSE 91
impact electrode

GEG 91
handle for retrofit of impact electrode

GSG 91
retrofitted impact electrode with front side of GSE 91 and handle GEG91

GST 91
steel nails (3 pieces each 12, 16 and 25 mm long) in plastic case

GOK 91
surfaces-measuring caps (pair)
(to be screwed on GSG91 or GSE91)

GMS 300/91
measuring pins 300 mm long (pair) for wood chips, wood wool, paper, carton, sand etc. (to be screwed on GSG91 or GSE91)

GBSK 91
short brush-type probe (pair) for depth down to approx. 100 mm

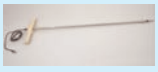
GBSL 91
long brush-type probe (pair) for depth down to approx. 300 mm

GLP 91
conducting paste 100 ml for surface measurements and depth indication in walls, wash floors etc. with brush probes

GSR 91
roller-type sensor for surface measurements on paper or textile webs etc.

GSP 91
sensor for surface measurements on paper, textiles etc.

GSP 91 ES
spare sensor element for GSP 91



GSF 38
injection probe 1 m long with handle and 1m connection cable (fo large bales of wood wool, wood chips etc.)

GEF 38
flat electrode (for floor pavement, paper etc.)

GPAD 38
testing adapter

GTF 38
insulated external NiCr-Ni temperature probe
(necessary for temperature differences between wood an device)

GKK 3500
case (394 x 294 x 106 mm) with punched lining for device an acces.

ST-RN
protection pocket with openings for sensor connections
(suitable for GMH 3830, GMH3850)

pict.: GMH3830 in ST-RN

Accessories only for GMH 3810:

GMK 3810
measuring cable (2 x banana plug to 2 x banana plug) approx. 1m long, incl. adapter for GMH3810.
Allows connection of accessories mentioned above (except GSF38 and GTF38).

GST 3810
spare measuring pins (10 pieces) in plastic case