Resistive material-moisture measuring device

FOR WOOD AND BUILDING MATERIALS

GMH 3810
Product-ID: 600350
Material-moisture measuring device with integrated measuring pins

Features:

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.
• 494 characteristic curves
• incl. calibration protocol

Specifications:

Measuring principle:	
moisture:	resistive material-moisture-measuring according to DIN EN 13183-2:2002
temperature internal: NTC	
Curves:	494 material characteristics
Measuring range:	
moisture:	0.0 ... 100.0 % moisture content 0.0 ... 50.0 % water content (depending on characteristic curve)
temperature:	-25.0 ... +50.0 °C (-13.0 ... +122.0 °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 material:	±0.2 % moisture content (deviation from characteristic curve)
Temperature compensation	automatically or manual
Measuring probe:	2 pin holders M6 x 0.75 with 19 mm pins (12 mm utilisable)
Perm. working temperature	0 ... 50 °C (not frozen)
Storage temperature: -25 ... +70 °C	
Rel. humidity:	0 ... 95 % RH (non-condensing)
Display:	two 4-digit LCDs
Power supply:	9 V battery
Power consumption: approx. 2.5 mA	
Housing:	Impact-resistant ABS plastic housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip
Dimensions:	142 x 71 x 26 mm (H x W x D)
Weight:	175 g
Scope of supply: Device, battery, manual	

Accessories and spare parts:

GST 3810
replacement pins (10 pcs.)

GMK 3810
1 m connection cable with 2 x banana plug and 2 adapters. Allows connection of accessories (except GSF38..., GTF38 and GES38) on GMH3810/GMR110.

Resistive material-moisture measuring device

FUNCTIONS:

rear side of device

WITH INTEGRATED MEASURING NEEDLES

HIGHLIGHTS:

• automatic temperature compensation

• material tables on rear side of device

• comfortable characteristic and rating display

GMR 110
Product-ID: 600101
Resistive material moisture measuring device with integrated measuring needles.

Features:

Compact and robust measuring device for fast evaluation of material moisture in firewood, timber, flake board, inlay, plaster, cement and lots more. A suitable characteristic is selected with help of material table on the rear side of the device before measuring. The material is contacted by pressing the measuring needles into it. The measured value is displayed only a short time afterwards. The device is especially designed for precise firewood and timber measurements, however, a lot of additional building materials can be rated.

• Material tables on rear side of device
• Integrated, exchangeable measuring needles
• Moisture rating (wet/dry) via bar graph
• Display of material moisture or water content
• Integrated temperature compensation
• Characteristic curve display

Characteristic curves:

3 wood groups:

h.01	spruce, pine
h.02	maple, birch, beech, larch (EUR), ash (EUR), fir
h.03	oak, ash (AM), poplar, douglas fir

a lot of additional wood types can be determined with the table of the instruction manual

8 building material curves:

c.01	cement screed, concrete
c.02	anhydrite screed
c.03	plaster, lime mortar
c.04	cement mortar
c.05	gas concrete
c.06	lime sand brick
c.07	clay brick
c.08	gypsum plaster

Specifications:

Measuring principle:	resistive material moisture measurement acc. to DIN EN 13183
Characteristic curves:	3 different wood groups (h.01, h.02, h.03) for a total of 130 wood types and 8 different building material curves (c.01, c.02, c.03, c.04, c.05, c.06, c.07, c.08)
Measuring range:	0.0 ... 100 % material moisture (depends on selected characteristics)
Moisture rating:	in 6 steps (wet … dry)
Resolution:	0.1 % (< 20 %), 1 % (> 20 %)
Accuracy: (at nominal temperature = 25 °C)	
wood:	±0.2 % material moisture (Deviation to wood characteristic curve in range 6 … 20 %)
building materials:	±0.2 % material moisture (Deviation to corresponding characteristic curve)
Temperature compensation:	automatically or manual
Measuring probe:	2 needle holder M6 x 0.75 with 19 mm measuring needles (12 mm usable length)
Perm. working temperature:	-5 ... 50 °C (not frozen)
Storage temperature: -25 ... +70 °C	
Rel. humidity:	0 ... 95 % RH (non condensing)
Display:	2 LCD displays for characteristic and measuring value
Power supply:	9 V battery
Current consumption:	approx. 1.8 mA
Current consumption:	made of impact-resistant ABS, plastic foil keyboard, clear screen. IP65 at front
Dimensions:	110 x 67 x 30 mm + needles 26 mm
Weight:	approx. 155 g
Scope of supply:	device, 2 needle protection caps, battery, manual

Accessories and spare parts:

GST 3810
spare measuring needles (10 pieces)

GMK 3810
measuring cable incl. socket adaptor

additional special accessories at page 35.

GB 9 V
spare battery

GKK 252
case (235 x 185 x 48 mm) with foam lining

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Handheld instrument

Display / Controller

Logger / EASYBus

Transmitter

Temperature probe

Alarm / Protection