



STANDARD
FUNCTIONS:



REFERENCE METER
FOR ANY CALIBRATION REQUIREMENT

HIGHEST ACCURACY AND
RESOLUTION (0.01 °C)

ADDITIONAL FUNCTIONS AT GMH 3750:



GMH 3710

Product-ID: 600332
Pt100 - High-Precision Thermometer,
Accessories not incl., 4-wire

GMH 3750

Product-ID: 600335
Pt100 - High-Precision Thermometer,
Accessories not incl., 4-wire, Data logger

Application:

Reference measuring device in liquids, soft media, air/gases.

Specifications:

Measuring range:	-199.99 ... +199.99 °C resp. -200.0 ... + 850.0 °C -199.99 ... +199.99 °F resp. -328.0 ... +1562.0 °F
Resolution:	0.01 °C resp. 0.1 °C; 0.01 °F resp. 0.1 °F
Linearisation:	Curve according to DIN EN 60751. GMH 3750 add. supports an userdefined curve.
Accuracy: (±1 digit) (at nominal temperature = 25 °C)	≤ 0.03 °C / 0.06 °F at resolution 0.01 ° ≤ 0.1 °C / 0.2 °F at resolution 0.1 °
Temperature drift:	≤ 0.002 °C / K
Input:	probe connection via 4-pin miniature DIN-plug, Pt100, 4-wire, in acc. to DIN EN 60751
Nominal temperature:	25 °C
Working temperature:	-25 ... +50 °C
Relative humidity:	0 ... +95 % RH (non-condensing)
Storage temperature:	-25 ... +70 °C
Display:	two 4½ digit LCDs (12.4 mm or 7 mm high), as well as additional arrows.
Pushbuttons:	6 membrane keys
Output:	3-pin jack connector Ø 3.5 mm, choice between serial interface or analog output
serial interface:	direct connection to RS232 or USB interface of a PC via electri- cally isolated interface adapter GRS 3100 or GRS 3105 resp. USB 3100 N (p.r.t. accessories).
analog output:	0 - 1 V, freely adjustable (resolution 13 bit, accuracy 0.05 % at nominal temperature)

Power supply:	9 V-battery, as well as additional d.c. connector for external 10.5-12 V voltage supply.
Power consumption:	approx. 1 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:	approx. 155 g
Scope of supply:	Device, battery, manual

additional at GMH 3750:

Userdefined sensor curve (50 interpolation points)

Logger function

- manual: 99 data sets
(fetch data via buttons or interface)
- cyclic: 16.384 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 GSOF3050 (see accessories) is available
for comfortable read-out of logger data.

Accessories and spare parts:

USB 3100 N	Product-ID: 601092 interface converter
GSOFT 3050	Product-ID: 601336 operating software (p.r.t. page 77)
GNG 10 / 3000	Product-ID: 600273 power supply
ST-R1	Product-ID: 601066 device protection bag (p.r.t. page 73)
GKK 1100	Product-ID: 601060 case (340 x 275 x 83 mm) with foam lining for universal use
GMHKonfig	(visit our homepage: Download --> Software)
Software description:	Comfortable software to edit the user defined sensor curve of the GMH 3750. (e.g. for calibration laboratories etc.)
Note:	please note that for the interface communication with the device a interface converter (USB 3100 N) is necessary (p.r.t. page 74).



Scope of supply:

Measuring device GMH 3750 or GMH 3710, temperature
probe GTF 401 1/3 DIN, plastic case GKK 3500 and
certificate of calibration with 3 calibration points.

General:

The overall error of a measuring consists of the sum of
the instrument error and the probe error. To minimize the
overall error, we offer calibrated and optimized systems
below.
Due to their excellent system accuracy they are especial-
ly suitable for quality assurance according to ISO9000ff,
as reference instruments in manufacturing processes,
laboratory, service and maintenance, etc.
The system optimization is done via a special character-
istic curve which is determined for each temperature
probe separately and stored in the instrument (GMH
3750) or with probe adjusting via offset and slope input
(GMH 3710).

GMH 3750/SET1

Product-ID: 602690
Measuring set incl. certificate of calibration

Specifications:

optimized measuring range:	-20 ... +70 °C
Temperature probe:	GTF 401 1/3 DIN, Pt100, 4-wire
System accuracy:	better than 0.07 °C (at opt. range)
Calibration points:	-20 °C / 0 °C / 70 °C

GMH 3750/SET2

Product-ID: 602691
Measuring set incl. certificate of calibration

Specifications:

optimized measuring range:	0 ... +250 °C
Temperature probe:	GTF 401 1/3 DIN, Pt100, 4-wire
System accuracy:	better than 0.3 °C (at opt. range)
Calibration points:	0 °C / 100 °C / 250 °C

GMH 3710/SET1

Product-ID: 602687
Measuring set incl. certificate of calibration

Specifications:

optimized measuring range:	-20 ... +70 °C
Temperature probe:	GTF 401 1/3 DIN, Pt100, 4-wire
System accuracy:	better than 0.1 °C (at opt. range)
Calibration points:	-20 °C / 0 °C / 70 °C

GMH 3710/DKD1

Product-ID: 602689
Measuring set incl. DKD calibration certificate DIN
17025

Specifications:

optimized measuring range:	-20 ... +70 °C
Temperature probe:	GTF 401 1/3 DIN, Pt100, 4-wire
System accuracy:	better than 0.1 °C (at opt. range)
Calibration points:	-20 °C / 0 °C / 70 °C