

## Pt100 - High-Precision Thermometer



- Suitable for all Pt100 4-wire probes with 4-pin miniature DIN-plug
- Highest accuracy and resolution (0.01 °C)
- Freely adjustable analog output 0-1 V or serial interface
- Offset and slope input, Min-/max- value memory, hold function
- incl. calibration protocol

**REFERENCE METER  
FOR ANY CALIBRATION REQUIREMENT**

### GMH 3710

Pt100 - High-Precision Thermometer, Accessories not incl., 4-wire

### GMH 3750

Pt100 - High-Precision Thermometer, Accessories not incl., 4-wire, Data logger

#### Application:

reference measurements in liquids, soft media, air/gases.

#### Specifications:

<b>Measuring range:</b>	-199.99 ... +199.99 °C resp. -200.0 ... +850.0 °C -199.99 ... +199.99 °F resp. -328.0 ... +1562.0 °F
<b>Resolution:</b>	0.01 °C resp. 0.1 °C; 0.01 °F resp. 0.1 °F
<b>Linearisation:</b>	digital stored characteristic curve GMH 3750 add. supports a userdefined curve.
<b>Auto-Range:</b>	automatically or manually choice of the measuring range
<b>Accuracy:</b>	(±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 °
<b>Temperature drift:</b>	≤ 0.002 °C / K
<b>Probe/Input:</b>	Pt100, 4-wire, in acc. to DIN EN 60751 probe connection via 4-pin miniature DIN-plug
<b>Nominal temperature:</b>	25 °C
<b>Working temperature:</b>	-25 ... +50 °C
<b>Relative humidity:</b>	0 ... +95 % RH (non-condensing)
<b>Storage temperature:</b>	-25 ... +70 °C
<b>Display:</b>	two 4½ digit LCDs (12.4 mm or 7 mm high), as well as additional arrows.
<b>Pushbuttons:</b>	6 membrane keys
<b>Output:</b>	3-pin jack connector Ø 3.5 mm, choice between serial interface or analog output
<b>- serial interface:</b>	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).
<b>- analog output:</b>	0 - 1 V, freely adjustable (resolution 13 bit, accuracy 0.05 % at nominal temperature)
<b>Power supply:</b>	9 V-battery, type IEC 6F22 (included) as well as additional d.c. connector for external 10.5-12 V voltage supply. (suitable power supply: GNG10/3000)
<b>Low battery warning:</b>	bAt
<b>Power consumption:</b>	approx. 1 mA
<b>Dimensions:</b>	142 x 71 x 26 mm (H x W x D) Impact-resistant ABS plastic housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip
<b>Weight:</b>	approx. 155 g

#### additional functions of the GMH 3750

- 2 integrated logger functions
- Optical and acoustic min-/max- alarm
- Userdefined sensor curve (50 interpolation points)te
- Real-time clock with day, month and year

#### Functional range:

##### Min./Max. value memory:

Memorizing of max. and min. values.

##### Hold function:

By pressing a button the current values will be „frozen“.

##### Auto-Off-Function:

1 ... 120 min (can also be deactivated).

##### Offset and slope input:

Offset- and scale correction can be entered digitally.

#### Additional functions of the GMH 3750:

##### Min-/Max-alarm:

the measuring value is constantly monitored if it remains within the min./max. limits (can also be deactivated).

##### - Alarm:

- 3 different alarm settings
- off: alarm function not activated
- on: visual alarm via display, integrated buzzer and interface
- no Sound: alarm via display and interface

##### - Controlling function:

with the help of the switching module GAM3000 (optionally) electric equipment can be switched on/off or get alarm monitored

##### Logger functions:

- **manually:** 99 data sets (data recall via keyboard or interface)
- **cycle:** 16.384 data sets (data recall via interface)  
adjustable cycle time: 1 s ... 1 h

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

#### Accessories and spare parts:

##### plug-in probes Pt100

p.r.t. page 126

##### GLF 401 Mini

Air probe (p.r.t. p. 126) for fast and accurate measurements in ambient air



##### GKK 1100

case (340 x 275 x 83 mm) with foam lining for universal use

##### USB 3100 N

interface converter

##### GSOFT 3050

software (p.r.t. p. 66)

##### ST-R1

device protection bag (p.r.t. p. 64)

##### GNG 10 / 3000

power supply