

Product Information

Pt 100 4 wire High Precision Thermometer GMH 3710 / GMH 3750



- Reference instrument for many calibration tasks
- highest accuracy
- thermo-voltage-compensated measurement
- high resolution (0.01 °C)
- incl. test report
- numerous 4-wire interchangeable probes available
- Excellent price-performance ratio
- Robust, long battery life
- Variant GMH 3750 with logger and alarm
- Made in Germany

Features

Powerful 4-wire Pt 100 thermometers with premium features.

Due to thermo-voltage-compensated measurement, low sensor current and complex linearization, accuracies better than 0.07 K are already possible with economical DIN Class AA sensors.

Traceable sets with ISO or DAkkS calibration certificates make the acquisition of a high-quality working or factory standard based on the GMH 3700 series both surprisingly inexpensive and easy!

Technical Data

Measuring ranges	-199,99 ... +199,99 °C / -200,0 ... + 850,0 °C -199,99 ... +199,99 °F / -328,0 ... +1562,0 °F
Resolution	0.01 °C or 0.1 °C / 0.01 °F or 0.1 °F
Linearization	Characteristic curve according to DIN EN 60751. For GMH 3750 add. user-specific characteristic curve
Accuracy (±1 digit, at nominal temperature = 25 °C)	≤0.03 °C / 0.06 °F with resolution 0.01° ≤0.1 °C / 0.2 °F with a resolution of 0.1
Temperature drift	≤0,002 °C / K
Measuring rate	2 measurements/s
Measuring current	0.3 mA
Sensor connection	via 4-pin shielded mini-DIN socket, Pt100, 4-wire, according to DIN EN 60751
Nominal temperature	25 °C
Operating temperature	-25 ... +50 °C
Relative humidity	0 ... +95 % r.h. (non-condensing)
Storage temperature	-25 ... +70 °C
Display	two 4½-digit LCD displays (12.4 mm or 7 mm high), as well as additional information arrows
Operating elements	6 membrane keys
Output	3-pole jack plug Ø 3.5 mm, optionally serial interface or analog output
serial interface	can be connected directly to the RS232 or USB interface of a PC via electrically isolated interface converter GRS 3100 or GRS 3105 or USB 3100 N (accessory).
Analog output	0 ... 1 V, freely scalable (resolution 13 bit, accuracy 0.05 % at nominal temperature)
Power supply	9 V battery and additional power supply socket for external 10.5-12 V DC power supply
Current consumption	approx. 1 mA, approx. 300 h
Housing	made of impact-resistant ABS, membrane keyboard, transparent screen, integrated installation/hanging bracket
Dimensions	142 x 71 x 26 mm (H x W x D)
Weight approx.	155 g
Scope of delivery	device, battery, test report, operating manual

Additionally for GMH 3750:

User specific sensor characteristic:	50 points
Logger functions	manual: 99 data sets (data sampling via keyboard or interface) cyclic: 16,384 data records (data retrieval via interface)
Adjustable cycle time:	1 s ... 1 h The logger is started and stopped via keyboard or interface. A comfortable software GSOF 3050 (see accessories) is available to read out the logger data

Product Information

Scope of delivery

- Handheld
- Test protocol
- 9V battery
- Manual

Ordering code

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1	Set-Option	
		Device alone, without temperature probe
	SET1	Set including device, GTF401 AA, ISO calibration -20...70 °C and case GKK3500
	SET2	Set including device, GTF401 AA, ISO calibration 0...250 °C and case GKK3500
	DKD1	Set including device, GTF401 AA, DKD calibration -20...70 °C and case GKK3500

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Accessories

MINIDIN 4S (article no. 601111)
Mini-DIN plug, 4-pin with lock for self-assembly.

GTF 401 DIN Kl. AA (article no. 600378)
Immersion sensor for liquids / gases
-50 to +400 °C, DIN class AA (± 0.1 °C at 0 °C)
(Many other sensor variants available!)

USB 3100 N (article no. 601092)
Interface converter GMH3xxx \leftrightarrow PC, USB

GSOFT 3050 (article no. 601336)
Windows software for GMH 3000 and GMH 5000 with logger

GNG 10 / 3000 (article no. 600273)
Wall plug power supply for GMH 3XXX series

ST-R1 (article no. 601066)
Protective bag, leather

GKK 1100 (article no. 601060)
Case with napped foam for universal use

GMHKonfig (free, on our homepage: Download -> Software)
Program description: Comfortable software for editing the user characteristic curve of the GMH 3750.
Note:
Please note that an interface converter (USB 3100 N) is required for interface operation of the device.