

Climate measuring device – Precision Hygro- / Thermo- / Barometer



**ALARM FUNCTION
WITH INTEGRATED BUZZER**

- air humidity, temperature and air pressure measurement
- additional display for further parameters, e.g. dew point temperature and absolute humidity
- min / max value memory
- very low power consumption (> 6500 operating hours)
- PC interface

GFTB 200

Digital-Hygro-/Thermo-/Barometer

General:

The GFTB 200 is designed for measuring air pressure, air humidity and temperature within seconds. It reaches remarkable accuracy because of its high precision sensors. The dew point temperature monitoring with GFTB 200 provides efficient protection from moisture damage potentially caused by condensation water and therefore helps preventing mold infestation. The integrated alarm function can be used to acoustically remind the user to ventilate in order to optimally and efficiently use heating energy. The integrated interface together with the software EBS 20M (optional) allow the use as mobile weather station with additional long-term recording. The GFTB 200 can precisely and clearly display the air condition with parameters like wet bulb temperature, absolute humidity and moisture content of the air.

Application:

- mobile weather station
- housing space, indoor swimming pools
- offices and production rooms, laboratories, storage rooms
- museums, gallery, churches
- Cooling and climate technology
- construction, building physics, loss assessment

Specifications:**Measuring ranges:**

Temperature:	-25.0°C ... +70.0 °C
Air humidity:	0.0 ... 100.0 % RH (recommended range: 11 ... 90 % RH)
Air pressure:	10.0 ... 1100.0 mbar

Calculated parameters:

Dew point temperature Td:	-40.0 ... 70.0 °C
Wet bulb temperature Twb:	-27.0 ... 70.0 °C
mixing ratio x:	0.0 ... 280.0 g/kg
Absolute humidity d:	0.0 ... 200.0 g/m ³
Resolution:	0.1 % RH; 0.1 °C / 0.1 °F, 0.1 mbar

Accuracy: (±1 digit) (at nominal temperature = 25 °C)

Temperature:	±0.5 % v.MW. ±0.1°C (Pt1000 1/3 DIN B)
Air humidity:	±2.5 % RH (at range 11 ... 90 %)
Air pressure:	±1.5 mbar (750 ... 1100 mbar)

Sensors:

Temperature:	Pt1000
Air humidity:	capacitive polymer humidity sensor
Air pressure:	piezo-resistive sensor hybrid

Response time: T₉₀ = 10 s**Display:** 4½ -digit, approx. 11 mm high LCD-display with additional displays**Operation elements:** 3 keys for ON/OFF, min/max value display, hold**Nominal temperature:** 25 °C**Working conditions:**

Electronics:	-25 ... 70 °C; 0 ... 80 % RH (non condensing)
Sensors:	-25 ... 70 °C; 0 ... 100 % RH

Power supply: 9 V battery Typ IEC 6F22**Current consumption:** approx. 30 µA at 1 measuring / 60 s (mode SLOW)
approx. 70 µA at 1 measuring / s (mode FAST)**Low battery warning:** „BAT“

Auto-off-function:	When Auto-off is activated, the device switches automatically off, if keypad is not attended for a longer time (selectable 1 ... 120 min).
Interface:	Serial interface, via electrical isolated interface converter USB 3100 N (accessories) directly connectable to PC.
Min / max value memory:	Lowest and highest values are saved for all units.
Hold function:	The current displayed value is ‚frozen‘ (all units are affected)
Configurable display:	choice between automatically displaying all values rotationally (cycle of 2 or 4 s) or manual selection, units not needed can be excluded
Sea level correction:	The displayed value of the barometer can be converted to air pressure at sea level (therefore the altitude above sea level has to be entered)
Tendency indicator (for barometer):	air pressure falling/increasing
Offset and scale:	digital offset- and scale adjustment of measurements
Housing:	impact-resistant ABS housing: approx. 106 x 67 x 30 mm (H x W x D), additionally the sensor head at the „length“ side, 35 mm long, Ø 14 mm; resulting total length 141 mm
Weight:	approx. 130 g incl. battery

Options (upon upcharge):**- KIT**

- USB-interface kit, consisting of:
 - USB interface converter USB 3100 N
 - multi channel software EBS20M (to record all device units) (ordering description: GFTB 200 / KIT)

Accessories and spare parts:**GKK 252**
case (235 x 185 x 48 mm) with foam lining**WPF4**
Certificate of calibration, humidity, for ISO9000ff (p.r.t. p. 6)**WPD5**
Certificate of calibration, pressure, for ISO9000ff (p.r.t. p. 6)**GFTB 200 SET**

Measurement set GFTB200 incl. infrared thermometer GIM 530 MS and case GKK 3000

General:

The additional infrared thermometer contained in the GFTB 200 SET makes it easy to check mould-problem areas on walls etc. The wall can easily be scanned by means of the laser beam within very short time. When wall temperature falls below the critical dewpoint (this is, when the wall gets wet), the device alerts with an audible signal.

Additional advantages GFTB 200 SET:

- blindingly easy search for thermal bridges
- targeting laser for precise location even of inaccessible areas
- audible alarm below dewpoint
- fast evaluation of mould-problem areas

Note:

for technical data for the infrared thermometer GIM530MS please refer to catalog page 16.

