

# humidity, temperature and flow rate measuring device



- Double display of humidity and temperature
- Compact probe for humidity and temperature measuring resp. flow rate measuring (probe exchange without re-calibration)
- Calculation of dew point temperature, dew point distance and enthalpy
- Additional NiCr-Ni-socket for surface measurement
- Min-/Max value memory, Hold function
- Serial interface, device can be connected to bus system (up to 5 devices can be connected to one PC interface)
- Battery/d.c. operation

## Additional functions of the GMH3350:

- 2 integrated logger functions
- Optical and acoustic min-/max- alarm
- Real-time clock with day, month and year

**GMH 3330** probe not included

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Please order probes separately! (p.r.t. page 13)  
(No re-calibration required for probe exchange!)

## Specification:

### Measuring ranges:

- Rel. humidity:** 0,0 ... 100,0 %RH
- Ambient temperature:** -40,0 ... +120,0°C (depending on TFS-probe)
- Surface temperature:** -80,0 ... +250,0°C
- Flow rate:** depending on STS probe (p.r.t. page 13)
- Resolution:** 0,1 %RH., 0,1 °C / 0,1 °F, 0,01 m/sec.
- Accuracy (device):** (±1 digit, at nominal temperature = 25°C)
- Rel. humidity:** ±0.1%
- Ambient temperature** (Pt1000): ±0,2%
- Surface temperature** (NiCr-Ni): ±0,5% of m.v. ±0,5°C
- Flow rate:** ±0,1%

**Probes:** (p.r.t. page 13) No calibration required for exchange of humidity/temperature or flow rate probe.

**Probe connection:** 6-pin screened Mini-DIN-socket

**NiCr-Ni-connection:** for miniature flat-pin plug

**Display:** two 4½ digit LCDs (12.4mm or 7mm high), as well as additional functional arrows.

**Working temperature:** -25 to +50°C

**Relative humidity:** 0 to +95%RH (non-condensing)

**Storage temperature:** -25 to +70°C

**Pushbuttons:** 6 membrane keys

**Interface:** serial interface, direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS3100 or GRS3105 resp. USB3100 (p.r.t. accessories).

**Power supply:** 9V-battery, type IEC 6F22 (included) as well as additional d.c. connector for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

**Auto-Off-Function:** 1...120min (can also be deactivated).

**Power consumption:** approx. 2,5 mA (incl. TFS0100)

**Low battery warning:**  $\Delta$  and 'bAt'

**Housing dimensions (device):** 142 x 71 x 26 mm (H x W x D)  
Impact-resistant ABS plastic housing, membrane keyboard.  
Front side IP65, integrated pop-up clip for table top or suspended use.

**Weight:** approx. 160 g (incl. battery)

### Functional range:

**Min-/Max-value memory:** memorizing of max. and min. values for humidity, temperature, dew point etc.

**Hold function:** By pressing a button the current values will be "frozen".

**Calculation of dew point:** based upon humidity and temperature.

**Calculation of dew point distance:** by means of a surface meas.

**Calculation of enthalpy** (thermal content h of the air)

## Adjustment-function for atmospheric humidity measurements

**NiCr-Ni-temperature measuring:** any standard NiCr-Ni-probe (type K) can be plugged in. Recommendation: GOF130VE (p.r.t. p. 92). A compensation value can be set for surface meas. if necessary.

### Flow measurements:

Two different systems for averaging are integrated:

- **continuous averaging:** the average value displayed is calculated using the last measurements during the averaging time set.
- **averaging upon request:** by starting the current measuring value will be displayed for the averaging time. As soon as the time has expired the average value will be displayed, the device is in HOLD mode.
- **selectable averaging time:** 1 ... 30 seconds

### Additional functions of the GMH3350:

**Min-/Max-alarm:** the measuring value is constantly monitored if they remain within the min./max. limits set.

- **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 alarm memoried (p.r.t. catalogue page 38)

### Logger functions:

- **manually:** 99 data sets (data recall via keyboard or interface)

- **cycle:** 5.400 data sets (data recall via interface)

- **adjustable cycle time:** 1sec. ... 1h

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:

**GNG 10/3000** plug-in power supply

**GKK 3500** case with cut-outs for GMH3xxx

**GKK 3600** case with foam lining for universal use

**GRS 3100** interface converter, electrically isolated

**ST-RN** device protection bag with cut out for sensor connection, suitable for: GMH3330, GMH3350, GMH3830, GMH3850 (p.r.t. page 38)

**GSOFT 3050**

software for the setting, data read-out and printing of all logger data stored for devices of the GMH3xxx-series with logger function. (p.r.t. page 39)

**GAM 3000**

Switching module for devices of the GMH3xxx-series incl. alarm output

**GMH3330 incl. TFS0100E and WPF4**

device incl. measuring probe, certificate of calibration and case (p.r.t. page 4)

**miscellaneous accessories (case, mains adaptors, etc.)**  
suitable for all GMH3xxx devices p.r.t. p. 38 - 39