

# HUMIDITY, TEMPERATURE AND FLOW RATE MEASURING DEVICE



**NEW!**



## HIGHLIGHTS:

- Calculation of dew point temperature, dew point distance and enthalpy
- Additional temperature input (type K)

## ADDITIONAL FUNCTIONS GMH 3351:



### GMH 3331

Art. No. 477975

Humidity, temperature and flow rate measuring device  
Device only probe not included

### GMH 3351

Art. No. 477977

Humidity, temperature and flow rate measuring device with data logger, Device only probe not included

#### GENERAL:

The GMH 33xx devices are universal precision hygrometer / Thermometer and flow meter with additional Thermocouple input in one. The plug-in probes are interchangeable without recalibration, because your calibration data are on an integrated memory stick (TFS ...) or they are interchangeable by the high mechanical precision (STS ...). The thermocouple input T2 is optimized to be able to quickly absorb surface temperatures to e.g. to display the dew point directly.

#### APPLICATION:

- Heating / Ventilation Air Conditioning (HVAC)
- Indoor air, meteorology, laboratory, research and teaching
- Energy assessment / optimization of buildings
- Identify research in structural damage

#### SPECIFICATIONS:

##### Measuring range:

Relative 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

Resolution:	0.1 % RH, 0.1 °C / 0.1 °F, 0.01 m/s
Accuracy (device) (±1 digit) (at nominal temperature = 25 °C)	

Relative humidity:	±0.1 %
Ambient temperature (Pt1000):	±0.2 %
Surface temperature (Type K):	±0.5 % of m.v. ±0.5 °C
Flow rate:	±0.1 %

Probes: No calibration required for exchange of humidity/temperature or flow rate probe.

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

Type K connection: for miniature flat-pin plug

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

Working temperature: -25..+50 °C

Relative humidity: 0..95 % RH, non-condensing

Storage temperature: -25..+70 °C

Pushbuttons:	6 membrane keys
Interface:	serial interface, 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).
Power supply:	9 V battery as well as additional d.c. connector for external 10.5..12 V direct voltage supply. (suitable power supply: GNG10/3000)

Battery life:	approx. 120 h (incl. TFS0100)
Calculation of dew point:	based upon humidity and temperature
Calculation of dew point distance:	by means of a surface measurement
Calculation of enthalpy:	thermal content h of the air

Adjustment-function for atmospheric humidity measurements

Type K temperature measuring: any standard Type K-probe (NiCr-Ni) can be plugged in. Recommendation: GOF 400 VE. A compensation value can be set for surface measurement if necessary.

Flow measurements: Two different systems for averaging are integrated:

**Continuous Averaging**  
the average value is displayed

**Average Hold**  
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 s

Logger function (GMH 3351):	<b>manual:</b> 1000 data sets (fetch data via buttons or interface) <b>cyclic:</b> 5.300 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.
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Analog output (GMH 3351):	0..1 V
Alarm (GMH 3351):	Input signal and alarm limits freely selectable Alarm horn / visual / interface
Housing:	Impact-resistant ABS plastic housing, membrane keyboard, transparent panel, integrated pop-up clip
Dimensions:	142 x 71 x 26 mm (H x W x D)
Weight:	approx. 160 g (incl. battery)
Scope of supply:	Device, battery, manual

#### ACCESSORIES AND SPARE PARTS:

**GNG 10/3000**  
Art. No. 600273  
Plug in power supply for devices of the series GMH 3XXX

**USB 3100 N**  
Art. No. 601092  
Interface Converter GMH3xxx <=>PC, USB

**GSOF 3050**  
Art. No. 601336  
Windows software for GMH 3000 and GMH 5000 with logger for the setting, data read-out and printing of all logger data stored

**ST-RN**  
Art. No. 601074  
Device protection bag with cut out for sensor connection

**GKK 3500**  
Art. No. 601052  
Device case soft lining e.g. for 2x GMH 3000 or 5000

**GKK 3600**  
Art. No. 601062  
Case with punched lining for universal application