

Humidity, temperature and flow rate measuring device



HIGHLIGHTS:

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

ADDITIONAL FUNCTIONS GMH 3350:



GMH 3330

Art. no. 600343

Climate measuring device, probe not included

GMH 3350

Art. no. 600345

Climate measuring device, probe not included, with data logger

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 ranges:

| | |
|-----------------------------|---|
| 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 (p.r.t. next page) |
| 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 (NiCr-Ni): | ±0.5 % of m.v. ±0.5 °C |
| Flow rate: | ±0.1 % |

Probes: (p.r.t. next page) 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 (12.4 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

NiCr-Ni-temperature measuring:

any standard NiCr-Ni-probe (type K) can be plugged in. Recommendation: GOF 400 VE (p.r.t. p. 24). 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 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 s

Logger function (GMH 3350):

manual: 99 data sets (fetch data via buttons or interface)
cyclic: 5.400 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 GSOFT3050 (see accessories) is available for comfortable read-out of logger data.

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

USB 3100 N

Art. no. 601092

Interface converter, electrically isolated

GSOFT 3050

Art. no. 601336

Software for the setting, data read-out and printing of all logger data stored for devices of the GMH3xxx-series with logger function

GAM 3000

Art. no. 601132

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

ST-RN

Art. no. 601074

Device protection bag with cut out for sensor connection

GKK 3500

Art. no. 601052

Big case with cut-outs for GMH3xxx

GKK 3600

Art. no. 601062

case with foam lining for universal use

Complete Solution



GMH 3330-TFS 0100E-WPF4

Art. no. 602682

Complete Solution with humidity-/temperature probe TFS 0100 E and incl. certificate of calibration WPF4 (~20 % / ~40 % / ~60 % / ~80 % RH ascending / descending) and case GKK 3500.