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 interchange-able 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

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

Logger function (GMH 3351):
- manual: 1000 data sets
  (fetch data via buttons or interface)
- cyclic: 5.1000 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.

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
  Plug in power supply for devices of the series GMH 3XXX
- USB 3100 N
  Art. No. 601074
  Interface Converter GMH3xxx => PC, USB
- GSOFT 3050
  Art. No. 601136
  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. 601074
  Case with punched lining for universal application

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

ADDITIONAL FUNCTIONS GMH 3351:

Flow measurements:
Two different systems for averaging are integrated
- Continuous Averaging
  The average 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
- Average Hold
  the average value is displayed for the selectable averaging time. As soon as the time has expired the average value will be displayed, the device is in HOLD mode.

Pushbuttons:
- 6 membrane keys

Interface:
- serial interface, direct connection to RS232 or USB interface of a PC
  via electrically isolated interface adapter CRS 3100 or CRS 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)
  approx. 120 h (incl. TFS0100)

Battery life:
- based upon humidity and temperature
  calculation of dew point
  calculation of dew point distance and enthalpy
  adjustment-function for atmospheric humidity measurements
  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

Calculation of dew point temperature, dew point distance and enthalpy
- goniometric measurement of humidity/temperature or flow measuring:
  Type K temperature measurement:
  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
  - Thermometer and flow meter with additional Thermocouple input (Type K):
    - 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

ADDITIONAL FUNCTIONS GMH 3351:
- pop-up clip transparent panel, integrated housing, membrane keyboard, selectable alarm horn / visual / interface
- selectable 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

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