# HAND-HELD MEASURING DEVICES WITH INTEGRATED SENSOR





#### HIGHLIGHTS:

- o Integrated pressure sensor
- o Sturdy metal connection pin
- Tare function / zero point offset
- Model with protection available

### ADDITIONAL FUNCTIONS GMH 3181-...:





| \ |   | $\bigcap$ |
|---|---|-----------|
| / | \ | $\lambda$ |

| Type specific data:                    | GMH 3161   | GMH 3181  | GMH 3161EX                         | GMH 3181EX  |  |
|--|--|---|------------------------------------|---|--|
| Display:                               | 2 x 41/2-digit LCD   | 2 x 4½-digit LCD  | 2 x 41/2-digit LCD                 | 2 x 4½-digit LCD  |  |
| Sensor:                                | Piezoresistive differential pressure sensor internally built into the instrument. Suitable for air and non-aggressive gases. (Note: Not suited for water!)   |   |                                    |   |  |
| Pressure connection:                   | 2 pressure port for universal 6 x 1 mm (4 mm hose inside diameter) or 8 x 1 mm (6 mm hose inside diameter) plastic tubing  |   |                                    |   |  |
| Output:                                | interface  | interface or AAG  | interface*                         | interface or AAG*   |  |
| Serial interface:                      | x  | x   | x                                  | х   |  |
| Analog output:                         | -  | 0 1 V, freely adjustable<br>(resolution 12 bit)   | -                                  | 0 1 V, freely adjustable (resolution 12 bit)  |  |
| Power supply:                          | 9 V battery, d.c. connector  | 9 V battery, d.c. connector   | 9 V battery, d.c. connector*       | 9 V battery, d.c. connector*  |  |
|  | suitable 9 V-battery, d.c. connector for external 10.5 12 V direct voltage supply. (suitable power supply: GNG10/3000)   |   |                                    |   |  |
| Sensor adjustment:                     | digital offset and scale input   | digital offset and scale input  | digital offset and scale input     | digital offset and scale input  |  |
| Peak value memory:                     | _  | ≥1 ms   | _                                  | ≥1 ms   |  |
| Measuring cycle: "slow"                | 4 measurements / s   | 4 measurements / s  | 4 measurements / s                 | 4 measurements / s  |  |
| "fast" (with filter)                   | _  | ≥1000 measurements / s  | _                                  | ≥1000 measurements / s  |  |
| "peak-detect"<br>(Spitzenwertspeicher) |  | ≥1000 measurements / s<br>The min- / max- value memory<br>stored unfiltered pressure peaks<br>≥1 ms | -                                  | ≥1000 measurements / s<br>The min- / max- value memory<br>stored unfiltered pressure peaks<br>≥1 ms |  |
| Averaging function:                    | =  | x   | _                                  | Х   |  |
| Battery life:                          | approx. 500 h  | approx. 500 h (slow mode)<br>approx. 120 h (fast = 1000 Hz)   | approx. 500 h                      | approx. 500 h (slow mode)<br>approx. 120 h (fast = 1000 Hz)   |  |
| Operating conditions:                  | -25 +50 °C, 0 +95 % RH (non-co   | ndensing)   | -10 +50 °C, 0 95 % RH (non-con     | densing)  |  |
| Housing:                               | 142 x 71 x 26 mm (H x W x D) (without pressure connection pin - pin approx. 16 mm protruding at front side of device),<br>Impact-resistant ABS plastic housing, membrane keyboard, transparent panel, integrated pop-up clip |   |                                    |   |  |
| Weight:                                | approx. 165 g  | approx. 170 g   | approx. 205 g (incl. leather case) | approx. 210 g (incl. leather case)  |  |
| Scope of supply:                       | Device, battery, calibration protocol, manual  | Device, battery, calibration protocol, manual   | Device, battery, manual            | Device, battery, manual   |  |
|  |  |   |                                    |   |  |

<sup>\*</sup> Please refer to note to Ex-design types (p. 84)

## Additional functions:

**Serial interface:** direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS 3100, GRS 3105 or USB 3100 N.

#### GMH 3181:

**Low power logger mode:** (only in measuring cycle "slow") Only one measurement carried out at the end of the respective logger cycle. The battery life is considerably prolonged. For long-term recordings (e.g. leaktest).

**Averaging function:** integrates the meas, values during a selectable period of time and then calculates the average display value.

**Controlling function:** with the help of the switching module GAM3000 (optionally) electric equipment can be switched on/off or alarm monitored (see accessories) **Logger functions:** 

- manual: 99 data sets
- cyclic: 10000 data sets (max. 64 recording sequences), adjustable cycle time: 1 ... 3600 s

### Note to the pressure unit selection: (information for all GMH31xx):

The choice of a specific pressure unit is possible, if its whole measuring range is displayable within the display of the device and the sensor is supporting these resolution.



Via Umberto Giordano, 5 - 35132 Padova Tel 049 2021144 - Fax 049 2021143 www.zetalab.it - email: info@zetalab.it