

# A series of hand-held measuring devices with integrated sensor

Handheld instrument

Display / Controller

Logger / EASYBUS

Transmitter

Temperature probe

Alarm / Protection



- integrated pressure sensor
- sturdy metal connection pin
- tara function / zero point offset
- model with **Ex** - protection available

### Additional features for GMH 3181:

- peak value memory (>1 ms)
- 2 logger functions
- analog output 0 - 1 V
- min-/max- alarm
- integrated horn



**DIGITAL-VACUUM- / BAROMETER** for measuring of absolute pressure.

**GMH 3161-12** (device ready for operation)

**GMH 3181-12** (device ready for operation)

0 ... 1300 mbar abs.



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#### Version specific data: ... - 12

<b>Measuring range:</b>	0 ... 1300 mbar absolute
<b>Overload:</b>	max. 4 bar absolute
<b>Resolution:</b>	1 mbar
<b>Pressure units:</b>	mbar, bar, kPa, MPa, PSI, mmHg, m - freely select able
<b>Accuracy:</b> (typ. values)	
hysteresis and linearity	± 0,2 % FS
temperature-influence from 0-50°C	± 0,4 % FS
Option higher accuracy available	yes
<b>Sensor:</b>	integrated piezo-resistive absolute pressure sensor. <i>Suitable for air and non-corrosive, non-ionising gases.</i> <i>(Note: sensor is not suitable for water!)</i>
<b>Pressure connection:</b>	1 metal connection pin, made of brass, nickel plated, pressure tubes 6x1 mm (4 mm inside-Ø) can be connected

For type specific data please refer to page 25

#### Special function:

**SeaLevel-correction:** The barometric air pressure can also be related to sea level "zero".  
 (Correction of air pressure is achieved by entering m above "zero")

#### Options (upcharges)

**Higher sensor accuracy**  
 by multi point calibration  
*Note: not possible for all device types!*

**Certificate of calibration WPD5**  
 (f. ISO9000 ff.) incl. several calibration points of sensor (stored in device memory), Certificate of calibration: 5 points increase, 5 points decrease.

**Certificate of calibration WPD10**  
 (f. ISO9000 ff.) incl. several calibration points of sensor (stored in device memory), Certificate of calibration: 10 points increase, 10 points decrease.

#### Special design type (upcharges)

**Ex-protection** (EEx ib IIC T4) **Ex**  
 device type with Ex-protection  
 (please refer to notes at page 20)

#### Accessories:

- GNG 10/3000** plug-in power supply
- GKK 3000** case (275 x 229 x 83 mm) with cut-outs for GMH3xxx
- GRS 3100** interface converter, RS232, electrically isolated
- USB 3100** interface converter, USB, electrically isolated
- GDZ-01** PVC-tube (5bar) 6/4 (6mm outside-Ø, 4mm inside-Ø)
- GDZ-08** Double adapter for 6/4 tube to 6/4 tube
- GDZ-18** tube clamp for 6/4 tube
- GDZ-21** T-piece for 6/4 tubes

for miscellaneous accessories  
 p.r.t. pages 22 - 23, 39 - 41

#### General function description:

- Tare function:** display value and the min./max values memorized can be set to zero.
- Hold function:** by pressing a button the current meas. value will be memorized.
- Min./Max. value memory:** memorizing of max. and min. values.
- Serial interface:** direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS3100, GRS3105 or USB3100.
- Power-Off-function:** device will be automatically switched of if no operating takes place for the time of the power-off delay. Selectable values: off, 1 ... 120 min.
- Peak value memory (peak-detect):** In the min-/max-value memory will be detected not filtered pressure peaks  $\geq 10\text{msec}$  or  $\geq 1\text{msec}$ .
- Logger operation:** Logger start and stop via the keyboard or interface. Comfortable read-out and display software (GSOFT3050) available as additional equipment.
- 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 (eg. tightness).
- Averaging function:** integrates the meas. values during a selectable period of time and then calculates the average display value.
- Min-/Max-alarm:** the measuring value is constantly monitored if they remain within the min./max. limits set (deactivateable)
- **Alarm:** 3 different alarm settings
  - "off" - alarm function deactivated
  - "on" - visual alarm via display, interface alarm, alarm sounded via integrated horn.
  - "no.So." - visual alarm via display and interface alarm
- **Controlling function:** with the help of the switching module GAM3000 (optionally) electric equipment can be switched on/off or alarm monitored (p.r.t. page 41)