A series of hand-held measuring devices with integrated sensor

- 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.

### Version specific data: ...
- measuring range: 0 ... 1300 mbar absolute
- overload: max. 4 bar absolute
- resolution: 1 mbar
- pressure units: mbar, bar, kPa, MPa, PSI, mmHg, m - freely selectable
- accuracy (typ. values)
  - hysteresis and linearity ± 0,2 % FS
  - temperature-influence from 0-50°C ± 0,4 % FS
- option higher accuracy available: yes
- sensor: integrated piezo-resistive absolute pressure sensor.
  - suitable for air and non-corrosive, non-ionising gases.
  - (note: sensor is not suitable for water!)
- pressure connection: 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:
- SealLevel-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 WP5
- (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 WP10
- (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 (EEEx ib IIC T4)
  - 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 off 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 >10msec or >1msec.
- 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 (e.g. 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 (deactivatable)
- 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 GAM3300 (optionally) electric equipment can be switched on/off or alarm monitored (p.r.t. page 41)

### Special design type (upcharges)
- Ex-protection (EEEx ib IIC T4)
  - device type with Ex-protection
  - (please refer to notes at page 20)