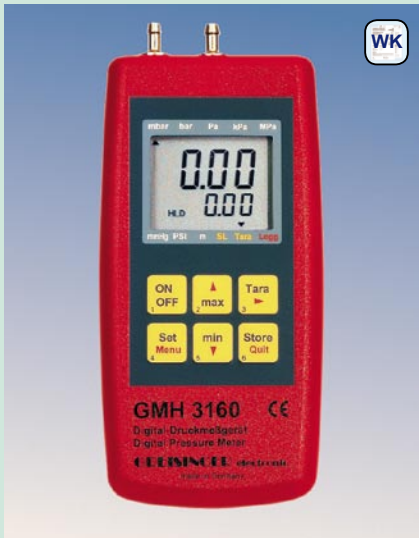


A series of hand-held measuring devices with integrated sensor



DIGITAL-FINE MANOMETER
for over/under pressure and pressure difference.

GMH 3160-01

-100 to 2500 Pa (-2500 ... +2500 Pa)

Device ready for operation incl. sensor, battery or d.c. operation

Specification:

Meas. range: -100 bis 2500 Pa (-2500 ... +2500 Pa)
-1,00 bis 25,00 mbar (-25,00 ... +25,00 mbar)

Overload: max. 10000 Pa (max. 100 mbar)

Resolution: 1 Pa (0.01 mbar)

Pressure units: mbar, bar, Pa, kPa, MPa, mmHg, PSI, m, can be selected.

Accuracy: (typ. values)

±0,3%FS (hysteresis and linearity)

±0,4%FS (temperature-influence from 0-50°C)

Sensor: piezoresistive relative pressure sensor. Suitable for air and non-corrosive, non-ionising gases and liquids.

Note: sensor is not suitable for water.

Sensor connection: 2 metal conn. pins, made of brass, nickel plated, pressure tubes 6x1mm (4mm Inner Ø) can be connected to the front side of the device

Display: 2 four digit LCD displays (12.4 and 7mm high) and 11 additional information arrows.

Working temperature: 0 to +50°C

Relative humidity: 0 to +95%r.h.
(non-condensing)

Storage temperature: -20 to +70°C

Interface: serial interface can be directly connected to RS232 interface of a PC via interface adapter GRS3100 (see accessories).

Min./Max. memory: both max. and min. values will be memorized.

Hold function: upon pressing a button the nominal value will be memorized.

Tare function: display value and the min./max values memorized can be set to zero.

Zero point compensation: for all connected pressure probes available.

Pushbuttons: 6 membrane keys

Power-Off-function: 1...120min
(can also be deactivated).

- integrated pressure sensor
- sturdy metal connection pin
- tara function / zero point offset

Additional features for GMH3180:

- peak value memory (>10 ms.)
- 2 logger functions
- min-/max- alarm
- integrated horn
- - protection (optional)

Power supply: 9V-battery, type IEC 6F22 (included) as well as additional mains adapter (internal pin Ø 1.9mm) for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Power consumption: <1mA (GMH3180: max. 3mA)

Low battery warning: and ' bAt '

Housing dimensions: (sensor connection pin not. incl) 142 x 71 x 26 mm (H X W x D), sensor pin: approx. 11 mm protruding at front side of device. Impact-resistant ABS plastic housing, membrane keyboard, transp. panel. Front side IP65, integrated pop-up clip for table top or suspended use

Weight: approx. 160 g

Options (upcharges):

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

Higher sensor accuracy

By multi point calibration - not possible for GMH3160-01 and GMH3180-01!

Certificate of calibration WPD5

(f. ISO9000 ff.) incl. several calibration points of sensor, certificate of calibration: 5 points increase, 5 points decrease

Certificate of calibration WPD10

(f. ISO9000 ff.) incl. several calibration points of sensor, certificate of calibration: 10 points increase, 10 points decrease

Accessories:

GNG 10/3000 power supply

GKK 3000 case (275 x 229 x 83 mm)
with cut-outs for GMH3xxx

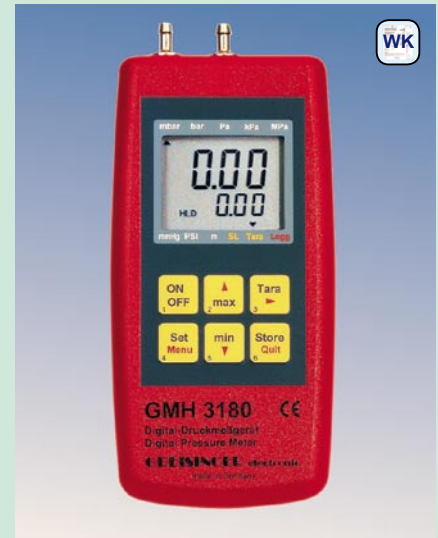
GRS 3100 interface converter,
electrically isolated

GDZ-01 PVC-tube (5bar)
6/4 (6mm outside-Ø, 4mm inside-Ø)

GDZ-08 Double adapter for
6/4 to 6/4 tube

GDZ-21 T-piece for tubes 6/4

for miscellaneous accessories
p.r.t. pages 22 - 23, 38 - 39



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GMH 3180-01

-100 to 2500 Pa (-2500 ... +2500 Pa)

Unit ready for operation incl. sensor, battery or d.c. operation

Specification :

Specification identical to GMH3160-01 with the following **additional functions:**

Measuring cycle: you have a choice between 3 measuring functions:

"slow" = 4 measurements / sec.

"fast" ≥ 100 meas. / sec. (with filter)

"peak-detect" ≥ 100 meas. / sec.

Peak value memory (peak-detect):

In the min-/max-value memory will be detected not filtered pressure peaks ≥ 10msec.

Low power mode: (only in meas. range "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)

Logger functions:

-**manually:** 99 data sets

-**cycle:** 9999 data sets

-**adjustable cycle time:** 1sec. ... 1h
Logger start and stop via the keyboard or interface. Comfortable read-out and display software (GSOFT3050) available as additional equipment.

Averaging Function: p.r.t. page 21

Min-/Max-alarm: the measuring value is constantly monitored if they remain within the min./max. limits set.

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 memorised (p.r.t. page 38)

Real-time clock: int. clock with date and year