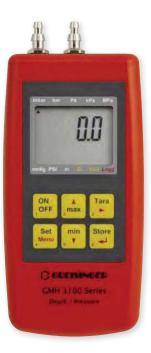
HAND-HELD MEASURING DEVICES WITH INTEGRATED SENSOR





HIGHLIGHTS:

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

ADDITIONAL FUNCTIONS GMH 3181-...:







Type specific data:	GMH 3161	GMH 3181	GMH 3161EX	GMH 3181EX	
Display:	2 x 4½-digit LCD	2 x 4½-digit LCD	2 x 4½-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 m	ım (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	X	
Analog output:		0 1 V, freely adjustable (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" (Spitzenwertspeicher)		≥1000 measurements / s The min- / max- value memory stored unfiltered pressure peaks ≥1 ms	-	≥1000 measurements / s The min-/ max- value memory stored unfiltered pressure peaks ≥1 ms	
Averaging function:		х		Х	
Battery life:	approx. 500 h	approx. 500 h (slow mode) approx. 120 h (fast = 1000 Hz)	approx. 500 h	approx. 500 h (slow mode) 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), 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	

^{*} 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

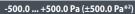
Note to the pressure unit selection: (information for all GMH31xx):

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.

FINEST MANOMETER / MANOMETER FOR OVER / UNDER PRESSURE AND PRESSURE DIFFERENCE







GMH 3161-002

Art. no. 600469

Pressure hand-held measuring device with integr. sensor

GMH 3181-002

Art. no. 600470

Pressure hand-held measuring device with integr. sensor

GMH 3161-002-EX

Art. no. 606685

Pressure hand-held measuring device with integr. sensor, Ex-protection (II 2 G Ex ib IIC T4 Gb)

GMH 3181-002-EX

Art. no. 609063

Pressure hand-held measuring device with integr. sensor, Ex-protection (II 2 G Ex ib IIC T4 Gb)

Spe	cific	cati	ons:

Measuring range: -500.0 ... +500.0 Pa (-5.000 ... +5.000 mbar)

Overload: max. 250 hPa (mbar) Resolution: 0.1 Pa (0.001 mbar)

Additional kPa, PSI, mmHg, mH₂O pressure units:

Accuracy: (typ. values)

Hysteresis and linearity:

Temperature-in-0.4 % FS fluence from 0 - 50 °C

Option higher accuracy available: Pressure connection: 2

For type specific data please refer to page 90.







-100 ... +2500 Pa (±2500 Pa *1)

GMH 3161-01

Art. no. 600397

Pressure hand-held measuring device with integr. sensor

GMH 3181-01

Art. no. 600411

Pressure hand-held measuring device with integr. sensor

GMH 3161-01-EX

Art. no. 607458

Pressure hand-held measuring device with integr. sensor, Ex-protection (Il 2 G Ex ib IIC T4 Gb)

GMH 3181-01-EX

Art. no. 600796

Pressure hand-held measuring device with integr. sensor, Ex-protection (II 2 G Ex ib IIC T4 Gb)

-1,00 ... +70,00 mbar (±70,00 mbar *1)

GMH 3161-07H

Art. no. 600405

Pressure hand-held measuring device with integr. sensor

GMH 3181-07H

Art. no. 600417

Pressure hand-held measuring device with integr. sensor

GMH 3161-07H-EX

Art. no. 610042 Pressure hand-held measuring device with integr. sensor, Ex-protection (Il 2 G Ex ib IIC T4 Gb)

GMH 3181-07H-EX

Pressure connection: 2



Art. no. 604074 Pressure hand-held measuring device with integr. sensor, Ex-protection (Il 2 G Ex ib IIC T4 Gb)

Specifications:	01	07H		
Measuring range:	-100 2500 Pa (-1.00 25.00 mbar)	-1.00 +70.00 mbar		
Overload:	max. 100 mbar	max. 1000 mbar		
Resolution:	1 Pa (0.01 mbar)	0.01 mbar		
Additional pressure units:	bar, kPa, PSI, mmHg, mH₂O	bar, Pa, kPa, PSI, mmHg, mH₂O		
Accuracy: (typ. values)				
Hysteresis and linearity:	±0.3 % FS	±0.1 % FS		
Temperature-in- fluence from 0 - 50 °C	±0.4 % FS	±0.4 % FS		
Option higher ac- curacy available:	no	already integrated		







-10,0 ... +350,0 mbar (±350,0 mbar *1)

GMH 3161-07

Art. no. 600400

Pressure hand-held measuring device with integr. sensor

GMH 3181-07

Art. no. 600413

Pressure hand-held measuring device with integr. sensor

GMH 3161-07-EX

Art. no. 604435

Pressure hand-held measuring device with integr. sensor, Ex-Schutz (Il 2 G Ex ib IIC T4 Gb)

GMH 3181-07-EX



Art. no. 601386 Pressure hand-held measuring device with integr. sensor, Ex-Schutz (Il 2 G Ex ib IIC T4 Gb)

-10,0 ... +420,0 mbar (-7,5 ... +315,0 mmHg)

GMH 3161-07B

Art. no. 600402

Pressure hand-held measuring device with integr. sensor

GMH 3181-07B

Art. no. 600415

Pressure hand-held measuring device with integr. sensor

GMH 3161-07B-EX



Art. no. 609064

Pressure hand-held measuring device with integr. sensor, Ex-Schutz (Il 2 G Ex ib IIC T4 Gb)

GMH 3181-07B-EX



Art. no. 604724

Pressure connection: 2

Pressure hand-held measuring device with integr. sensor, Ex-Schutz (Il 2 G Ex ib IIC T4 Gb)

Specifications:	07	07B		
Measuring range:	-10.0 +350.0 mbar	-10.0 +420.0 mbar (-7.5 315.0 mmHg)		
Overload:	max. 1 bar	max. 1 bar		
Resolution:	0.1 mbar	0.1 mbar (0.1 mmHg)		
Additional pressure units:	bar, kPa, MPa, PSI, mmHg, mH₂O	bar, kPa, MPa, PSI, mH₂O		
Accuracy: (typ. values)				
Hysteresis and linearity:	±0.2 % FS (±0.1 % FS)*3	±0.1 % FS		
Temperature-in- fluence from 0-50 °C	±0.4 % FS	±0.4 % FS		
Option higher ac- curacy available:	yes	already integrated		

^{*1} measuring range possible by changing the pressure connection ports

^{*2} without changing the pressure connection ports

^{*3} Option higher accuracy