

Water-proof handheld device for pressure measurement with external changeable probes



GMH 5130 / 50



GMH 5155

**WATER-PROOF
DEVICE AND PLUG-IN CONNECTIONS****HIGHLIGHTS:**

- Peak value detection (1000 measurements / s)
- Large double display with background illumination
- Calibrated and fully interchangeable pressure probes
- incl. calibration protocol

ADDITIONAL FUNCTIONS GMH 5150 AND 5155:**ADDITIONAL FUNCTIONS GMH 5155:**

- 2 GMSD/MSD-probes connectable.
- Difference measurement of two probes

suitable pressure probes
p. r. t. page 76/77**GMH 5130**

Art. no. 600027

Pressure measurement device with 1 sensor connection, without sensor

GMH 5150

Art. no. 600031

Pressure measurement device with 1 sensor connection, analog output and data logger, without sensor

GMH 5155

Art. no. 600033

Pressure measurement device with 2 sensor connections, analog output and data logger, without sensors

General:

This handheld instrument is a valuable tool for demanding pressure measurements. Extremely robust plug connections, the silicone protection cover, backlight and a water-proof design allow its usage in harsh industrial and field environments.

Application:

- industry and craft, HVAC: heating, ventilation, air-conditioning
- leakage test / pressure test
- chimney draft measurement: under pressure, leakage test at buildings (i.e. 4 Pascal test)
- measurements of gas and oil firings
- automobile trade, hydraulic analysis (peak pressure)

Specifications: GMH 5130

| | |
|---------------------------------|--|
| Sensor connections: | 1 |
| Suitable probes: | GMSD / MSD sensors, available ranges (resolutions) from -1.999 ... 2.500 mbar (0.001 mbar) to 0 ... 1000 bar (1 bar) |
| Display range max.: | -19999 ... +19999 digit |
| Display unit: * | depends on measuring range selection and sensor: mbar, bar, Pa, kPa, MPa, mmHg, inHg, PSI, mH ₂ O |
| Measuring frequency: | 4 measurements / s or 1000 measurements / s with peak value memory |
| Average filter: | adjustable: 1 ... 120 s |
| Accuracy: | ±0.1 % FS ±1 digit |
| Connections | |
| Sensor | 1x 7-pole bayonet connector |
| Output / external supply | 4-pole bayonet connector for serial interface, * supply (with accessories: USB adapter USB 5100) |
| Display: | 4 ½ digit 7-segment, illuminated (white) |
| Working temperature: | -25 ... +50 °C, 0 ... 95 % RH (non-condensing) |
| Storage temperature: | -25 ... +70 °C |
| Power supply: | 2 x AAA-battery, battery life 500 h (without illumination, 4 measurings / s) |
| Housing: | impact resistant ABS housing with pop-up clip |
| Protection class | IP65 / IP67 |
| Dimensions: | 160 x 86 x 37 mm (H x W x D) incl. silicone protection cover (red) |
| Weight: | approx. 250 g incl. battery and protection cover |
| Scope of supply: | Device, battery, calibration protocol, manual |

| Specifications: | GMH 5150 and GMH 5155 |
|---------------------------------|--|
| Sensor connections: | 1, GMH 5155: 2 |
| Suitable probes: | GMSD / MSD sensors, available ranges (resolutions) from -1.999 ... 2.500 mbar (0.001 mbar) to 0 ... 1000 bar (1 bar) |
| Display range max.: | -19999 ... +19999 digit |
| Display unit: * | depends on measuring range selection and sensor: mbar, bar, Pa, kPa, MPa, mmHg, inHg, PSI, mH ₂ O, user |
| Measuring frequency: | 4 measurements / s or 1000 measurements / s with peak value memory |
| Average filter: | adjustable: 1 ... 120 s |
| Accuracy: | ±0.1 % FS ±1 digit |
| Connections: | |
| Sensor: | 1 x 7-pole bayonet connector GMH 5155 only: 2 x 7-pole bayonet connector |
| Output / external supply | 4-pole bayonet connector for serial interface, * supply (with accessories: USB adapter USB 5100) |
| Analog output: | 0 ... 1 V, freely adjustable, connection with 4-pole bayonet connector, resolution 12 bit |
| Display: | 4 ½ digit 7-segment, illuminated (white) |
| Working temperature: | -25 ... +50 °C, 0 ... 95 % RH (non-condensing) |
| Storage temperature: | -25 ... +70 °C |
| Power supply: | 2 x AAA-battery (included), battery life 500 h (without illumination, 4 measurings / s) |
| Housing: | impact resistant ABS housing with pop-up clip |
| Protection class: | IP65 / IP67 |
| Dimensions: | 160 x 86 x 37 mm (H x W x D) incl. silicone protection cover (red) |
| Weight: | approx. 250 g incl. battery and protection cover |
| Scope of supply: | Device, battery, calibration protocol, manual |

Additional functions:**Additional Display for Battery:** Bar graph display**Background Illumination:** duration adjustable (off, 5 s ... 2 min.)**Adjustment:** offset / slope adjustable in menu**User-defined displayed unit: (user/GMH 5150/55)**

conversion to any unit with help of linear factor

Leakage test function (GMH 5150/55):

leak rate display, leak rate alarm (/s, /min, /h)

Air velocity / flow volume (GMH 5150/55):

Pitot tube measurement (accessories)

peak-detect (Peak value memory):

The min- / max- value memory stored unfiltered pressure peaks ≥1 ms

Logger function

with measuring point input, adjustable cycle time: 1 s ... 1 h,

recording time: 416 days at interval 1 h, data logger: cyclic: 10.000 data sets (GMH 5150), 8.000 data sets (GMH 5155); manual: 1.000 data sets (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

*** = Note to the pressure unit selection:**

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.

Accessories

Accessories and spare parts:

GMSD ... - K51

pressure sensors

(p.r.t. page 76)

Application field:

non-aggressive gases

for over / under pressure and difference pressure meas.
or absolute pressure meas.**MSD ...**

pressure sensors / stainless

steel (p.r.t. page 77)

Application field: air,

aggressive gases for over / under pressure and relative
pressure meas. or absolute pressure meas.**MSD-K51**

Art. no. 603809

1 m connection cable for MSD sensors

Prandtl-Staurohr

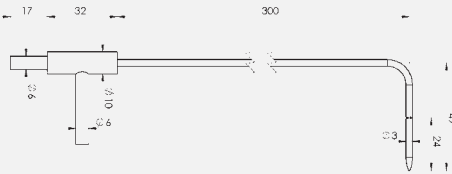
Art. no. 604150

(made of stainless steel)

for air velocity / flow volume measurement

Ø = 3 mm, NL = 300 mm, max. 600 °C

GMSD 2,5 MR-K51 or GMSD 25 MR-K51 are required

**GDZ-01**

Art. no. 601541

PVC tube 6/4 (6 mm outer Ø, 4 mm inner Ø)

(5 bar at 23 °C)

**GDZ-30**

Art. no. 601601

Adapter G1/2" inner to tube 6/4

EBS 20M

Art. no. 601158

software for long-term monitoring (p.r.t. page 96)

GSOFT 3050

Art. no. 601336

Software for operation of logger devices (p.r.t. page 97)

USB 5100

Art. no. 601095

Electrically isolated interface converter, supplied via USB

GNG 5 / 5000

Art. no. 602287

Plug-in power supply 5 V DC, suitable for GMH 5000

series (see p. 94)

GKK 3500

Art. no. 601052

Device case (394 x 294 x 106 mm) with eggcrate foam
and cut-outs for 1 device (p.r.t. page 92)

Hand-held pressure measuring device



HIGHLIGHTS:

- one device for any measuring range (2.500 mbar ... 1000 bar)
- calibrated and fully interchangeable pressure probes

Suitable pressure probes
p.r.t.p. 76/77**GMH 3111**

Art. no. 600374

Hand-held pressure measuring device with 1 sensor
connection, without sensor**GMH 3111-EX**

Art. no. 600380

Hand-held pressure measuring device with 1 sensor
connection, without sensor, ex

Specifications:

| | |
|----------------------------|---|
| Max. display range: | -19999 ... +19999 digit |
| Measuring range: | corresponding to used probe |
| Overload: | corresponding to used probe |
| Resolution: | corresponding to used probe |
| Accuracy: (device) | ±0.1 % FS ±1 digit (at nominal temperature = 25 °C) |
| Pressure units: * | mbar, bar, Pa, kPa, MPa, mmHg, PSI, mH ₂ O, can be selected. |
| Probe connection: | 1 sensor socket 6-pin lockable Mini-DIN-socket(s) for GMSD/MSD-sensors. Automatic probe detection and setting of measuring range upon plugging in of probe. |
| Display: | 2 x 4½ digit LCD |
| Output: | interface |
| serial interface: | direct connection to RS232 or USB interface of a PC via electrically isolated interface converter GRS 3100, GRS 3105 or USB 3100 N. |
| Power supply: | 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 |
| Measuring cycle: | 4 measurements / s |
| Battery life: | approx. 120 h |
| Working condition: | -25 ... 50 °C, 0 ... 95 % RH, GMH 3111-ex: -10 ... +50 °C, 0 ... 95 % RH |
| Housing: | impact-resistant ABS plastic housing, Front side IP65 GMH 3111 only: integrated pop-up clip for table top or suspended use. |
| Dimensions: | 142 x 71 x 26 mm (H x W x D) |
| Weight: | approx. 150 g, GMH3111-EX: approx. 190 g (incl. leather case) |
| Scope of supply: | Device, battery, calibration protocol, manual |

Note to Ex-design types:

Technical changes compared to standard instrument (valid for all GMH31xx-EX)

Ex qualification: II 2 G Ex ib IIC T4 Gb

Ref. document: EPS 09 ATEX 1 227 X

Standards:

The device meets the standards for electric resources in explosion endangered areas according to EN 60079-0 : 2012, EN 60079-11 : 2012

Probe:

(GMH 3111-EX, GMH 3151-EX, GMH 3156-EX) All GMSD sensors with option „Ex type“ can be used.

Interface:

suitable interface adapter are USB 3100 N, GRS 3100 and GRS 3105

Please note: The operation of the interface is not allowed within the Ex area!**Working temperature:** -10 ... +50 °C**Power supply:** 9 V-battery, d.c. connector**Please note:** the use of d.c. connector is not allowed within the Ex area! Just d.c. connectors of type GNG10/3000 can be used.

Alarm function:

(GMH 3151-EX, GMH 3156-EX, GMH 3181-EX)

The device is without a horn, in the alarm settings are only the parameter „no.so“ and „off“ adjustable.

Scope of supply:

device with associated leather case.



* Note to the pressure unit selection: (information for all GMH 31xx)

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.