ACCESSORIES

ACCESSORIES OR SPARE PARTS:

GMSD ..- K51
Pressure sensors
Application: non-aggressive gases
for over / under and differential
pressure measurement or
absolute pressure measurement

MSD ...
Stainless steel pressure sensors
Application:
air, aggressive gases
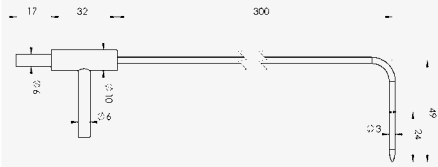for over / under and
relative pressure measurement

MSD-K51
Item No. 603809
Connection cable for MSD sensor to GMH 51xx, 1 m

Prandtl pitot tube
Item No. 604150
stainless steel , for measuring the air speed / volume flow,
Ø = 3 mm, NL = 300 mm, max. +600 °C
GMSD 2,5 MR-K51 or GMSD 25 MR-K51 is required

GDZ-01
Item No. 601541
PVC tube 6/4 (6 mm outer Ø, 4 mm inner Ø, 5 bar at 23 °C)

GDZ-31
Item No. 606070
Silicone tube 8/5 (8 mm outer Ø, 5 mm inner Ø, 2 bar at
23 °C, max. 200 °C), very flexible

GDZ-30
Item No. 601601
Adapter G ½ inside to tube 6/4

EBS 20M
Item No. 601158
Measurement data acquisition software for EASYBus & GMH

GSOFT 3050
Item No. 601336
Windows software for GMH 3000 and GMH 5000 with
logger for operating logger devices

USB 5100
Item No. 601095
Interface converter GMH 5xxx <=> PC

GNG 5/5000
Item No. 602287
Plug in power supply for GMH 5XXX series

GKK 3500
Item No. 601052
Device case with soft cutouts e.g. 2x GMH 3000 or 5000,
395 x 295 x 106 mm (W x H x D)

PORTABLE PRESSURE MEASURING DEVICES

ISO
AUTOOFF
HOLD
MIN MAX
O / S-CORR
TARA

HIGHLIGHTS:

○ One device for any pressure measuring range
(2.500 mbar..1000 bar)

○ Pressure sensors already calibrated and fully
interchangeable

GMH 3111
Item No. 600374
Portable pressure instrument with
1 sensor connection, without sensor

GMH 3111-EX
Item No. 600380
Portable pressure instrument with
1 sensor connection, without sensor, Ex

TECHNICAL SPECIFICATIONS:

max. display range:	-19999 .. + 19999 digit
Measuring range:	depending on the sensor used
Overload:	depending on the sensor used
Resolution:	depending on the sensor used
Accuracy: (device)	± 0.1 % FS ± 1 digit (at nominal temperature = 25 °C)
Pressure units: *	mbar, bar, Pa, kPa, MPa, mmHg, PSI, mH$_2$O, switchable by pressing a button.
Sensor connection:	1 sensor socket 6-pole shielded mini-DIN socket with locking for GMSD / MSD sensors. Automatic sensor recognition and corresponding measuring range setting.
Display:	2 x 4½-digit LCD
Output:	interface
serial interface:	Can be connected directly to the RS232 or USB interface of a PC via the galvanically isolated interface converter GRS 3100, GRS 3105, USB 3100 N
Power supply:	9 V battery, power supply socket for external 10.5..12 V DC voltage supply (suitable power supply unit: GNG10 / 3000)
Sensor adjustment:	digital offset and slope input
Measuring cycle:	4 measurements / s
Battery life:	approx. 120 h
Working conditions:	-25 .. + 50 °C, 0..95 % RH, **with GMH 3111-EX:** -10 .. + 50 °C, 0..95 % RH
Housing:	Made of impact-resistant ABS, membrane keyboard, transparent panel **only with GMH 3111:** Integrated stand-up / hanging bracket
Dimensions:	142 x 71 x 26 mm (H x W x D)
Weight:	approx. 150 g, **with GMH3111-EX:** approx. 190 g (including bag)
Scope of delivery:	Device, battery, test report, operating instructions

NOTES ON EX VERSIONS:

Technical changes compared to the standard device (applies to all GMH31xx-EX)

Ex approval: ⟨Ex⟩ II 2 G Ex ib IIC T4 Gb

Certificate: EPS 09 ATEX 1 227 X

Standards:
The device fulfills the standards for electrical equipment for potentially explosive areas according to EN 60079-0: 2012, EN 60079-11: 2012

Sensor:
(GMH 3111-EX, GMH 3151-EX, GMH 3156-EX) All GMSD / MSD sensors with the "Ex version" option can be used.

Interface:
usable interface converters are USB 3100 N, GRS 3100 and GRS 3105
Note: Operation of the interface and the analog output is not permitted in the Ex area!

Working temperature: -10 .. + 50 °C

Power supply:
9 V battery, mains socket
Note: The use of the power supply socket is not permitted in the Ex area! Only power supply units of the type GNG10 / 3000 may be used!

Alarm function:
(GMH 3151-EX, GMH 3156-EX, GMH 3181-EX)
The device has no sounder, in the alarm setting only the setting "no.so" and "off" are available

Scope of delivery:
The device is delivered with a leather case.

* Note on setting the pressure units: (applies to all GMH 31xx).
The selection of different pressure units is only possible if the entire measuring range of this unit can also be shown on the display and the sensor also supports this resolution.

PORTABLE INSTRUMENTS

SOFTWARE

ACCESSORIES

ALARM / PROTECTION / LEVEL

PORTABLE PRESSURE MEASURING INSTRUMENT WITH DATA LOGGER

LOGGER FUNCTION

GMH 3151

GMH 3156

HIGHLIGHTS:

○ 4½-digit display, sensors with higher resolution on request

○ Peak value memory 1000 measurements / s

○ Analog output 0..1 V

○ Digitally adjustable

○ Integrated alarm sounder

WITH THE GMH3156 ADDITIONALLY:

○ 2 GMSD / MSD sensors can be attached.

○ Differential pressure measurement of two sensors

GMH 3151
Item No. 600381
Portable pressure instrument with 1 sensor connection, logger, without sensor

GMH 3156
Item No. 600386
Portable pressure measuring instrument with 2 sensor connections, logger, without sensor

GMH 3151-EX
Item No. 600383
Portable pressure measuring instrument with 1 sensor connection, logger, without sensor, Ex (notes on Ex versions on the previous page)

GMH 3156-EX
Item No. 600394
Portable pressure measuring instrument with 2 sensor connections, logger, without sensor, Ex (notes on Ex versions on the previous page)

TECHNICAL SPECIFICATIONS:

max. display range:	-19999 .. + 19999 digit
Measuring range:	depending on the sensor used
Overload:	depending on the sensor used
Resolution:	depending on the sensor used
Accuracy (device):	± 0.1 % FS ± 1 digit (at nominal temperature = 25 °C)
Pressure units *:	mbar, bar, Pa, kPa, MPa, mmHg, PSI, mH$_2$O, switchable by pressing a button
Sensor connection:	1, for GMH 3156 / -EX: 2 6-pole shielded mini-DIN socket (s) with locking for GMSD / MSD sensors, automatic sensor recognition and corresponding measuring range setting.
Display:	2 x 4½-digit LCD
Output:	Interface or AAG
serial interface:	Can be connected directly to the RS232 or USB interface via a galvanically isolated interface converter, GRS 3100 or GRS 3105 or USB 3100 N.
Analog output:	0..1 V, freely scalable (resolution 12 bit)
Power supply:	9 V battery, power supply socket for external 10.5..12 V DC voltage supply (e.g. GNG10 / 3000)
Sensor adjustment:	digital offset and slope input
Measurement cycle: "slow"	4 measurements / s
"Fast" / "peak-detect"	≥1000 measurements / s
Peak value memory:	Unfiltered pressure peaks ≥1 ms are recorded in the min / max value memory.
Logger functions	
manual records:	99 records
cyclic data sets:	10000 GMH 3156 / -EX: 4000 (max. 64 recording series)
adjustable cycle time:	1..3600 s
Averaging calculation:	x
Battery life:	approx. 180 h (4 measurements / s) approx. 40 h (1000 measurements / s)

Working conditions:	-25 .. + 50 °C, 0..95 % RH (non-condensing), **with GMH 315x-EX:** -10 .. + 50 °C, 0..95 % RH (non-condensing)
Housing:	Made of impact-resistant ABS, membrane keyboard, transparent panel **only with GMH315x-EX:** integrated pop-up clip
Dimensions:	142 x 71 x 26 mm (H x W x D)
Weight:	approx. 150 g, **with GMH 315x-EX:** approx. 190 g (including bag)
Scope of delivery:	Device, battery, test report, operating instructions

ADDITIONAL FUNCTIONS:

Averaging calculation:
The measured values are integrated over an adjustable time and the averaged display value is output.

SeaLevel correction:
When an absolute pressure sensor is plugged in, the barometric air pressure can also be displayed in relation to sea level "zero". (The air pressure is corrected by entering the altitude above "zero" in meters)

Logger functions:
- manual data records: 99 data records
- cyclic data sets: 10000 (GMH 3151)
  4000 (GMH 3156)
(max. 64 recording series), adjustable cycle time: 1..3600 s; The logger is started and stopped via the keyboard or interface. An easy-to-use software GSOFT 3050 (see accessories) is available for reading-out the logger data.

* Note on setting the pressure units: (applies to all GMH 31xx). The selection of different pressure units is only possible if the entire measuring range of this unit can also be shown on the display and the sensor also supports this resolution.

ACCESSORIES

ACCESSORIES OR SPARE PARTS:

GMSD ...
Pressure sensors with plastic tube connections for Ø 6mm hoses

MSD ...
Stainless steel pressure sensors
Area of application:
Air, aggressive gases for over / under and relative pressure measurement

MSD-K31
Item No. 600657
Connection cable for MSD sensor to GMH 31xx, 1 m