

The innovation in pressure measurement!

# GDUSB 1000

universal USB interface adapter for GMSD pressure sensors



- large variety of pressure sensors (measuring range 2.5 mbar ... 1000 bar) calibrated, compatible without adjustment
- real pressure peaks registration of 1 ms
- comfortable display of the pressure developing on the PC (the PC software GSOFT\_USB already included in delivery)
- no external power supply needed (supply via USB interface)
- all GMSD pressure sensors (refer to pages 22/23) of the GMH31xx handheld instruments can be connected
- large application area

## Application areas:

- long term monitoring of pressure
- registration of pressure peaks (i.e. at switching operations)
- monitoring of pressure developing (i.e. in process technology)
- checking of working pressure developing in mechanical and plant engineering

## General function description:

The GDUSB1000 adapter allows the direct connection of a standard pressure sensor of the type GMSD to the USB interface of a PC.

The adapter provides 4 channels:

- current measured value
- average value (since the last enquiry)
- max and min peak (since the last enquiry)

There are two modes for the measurement available:

### Fast-mode: (autom. sending)

At this mode the GDUSB 1000 sends automatically the measured values at adjustable intervals after a trigger condition has occurred.

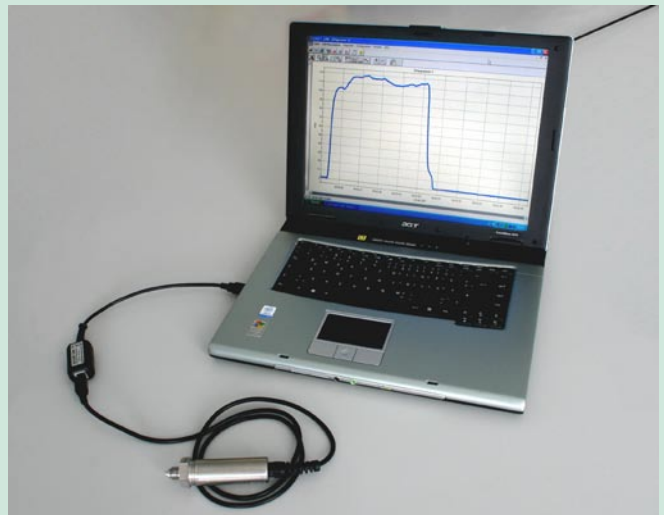
Here the 4 channels are available, where at a cyclic time  $\geq 5$  ms the 4 measuring units are recorded at the same time.

This mode is suitable for the analysis of pressure developments, recording of pressure peaks (with pre-trigger) etc.

The device is handled by the comfortable software GSOFT\_USB, which has for example the following functions:

- pre-trigger: the 200 (or 50) data sets before the trigger condition are also recorded
- 5 different trigger conditions for the recording start
- 6 different trigger conditions for the recording stop

Furthermore the GSOFT\_USB software allows to analyse and archive the pressure developing.

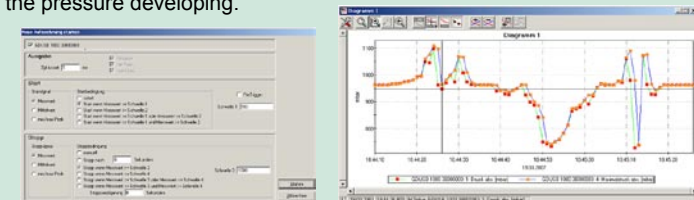


## GDUSB 1000 (device + software)

(for suitable probe please refer to pages 22/23)

### Specification: (GDUSB1000)

- Measuring range:** corresponding to connected probe from 2.5 mbar to 1000 bar
- max. range:** -19999 ... +19999 Digit
- Resolution:** corresponding probe (down till 0.1 Pa)
- Pressure units:** mbar, bar, Pa, kPa, MPa, mmHg, PSI, mH<sub>2</sub>O, switchable, according to the used sensor
- Sampling rate:** 1000 measurements / sec. (= 1 ms)
- Accuracy:**  $\pm 0.2$  % FS (at nominal temperature = 25°C)
- Recording interval:** 1 ms to 10 s (at fast-mode) or responding to the software enquiry
- Connections:**
- PC:** Standard USB plug (type A)
  - GMSD/GMXD:** 6-pin screened Mini-DIN jack with bolting.  
*The sensor will be automatically identified and the measuring range will be adjusted when the sensor is connected.*
- Power supply:** via USB interface
- Working conditions:** -25 ... +50 °C, 0 ... +95 %RH. (non-condensing)
- Storage temperature:** -25 ... +70 °C
- Housing:**
- Dimensions:** ca. 56 x 31 x 24 mm
  - Cable length (USB):** approx. 30 cm
  - Weight:** approx. 40 g
- System requirements software:** CPU with 1GHz, 256 MB RAM  
The software is executable with: Windows 98SE, 2000, XP and Vista



### Standard-mode: (master-slave)

At this mode the GDUSB1000 behaves like a handheld instrument of the GMH3xxx series and sends the measured value of the desired channel on demand.

The communication can be done via standard GMH/EASYBus software (i.e. EBS9M (not included in delivery)). This mode provides i.e. the opportunity of long term monitoring of pressure.