

# GSI/s BREATH ANALYSIS AND SAMPLING

## Single Breath Version

The device is developed to characterize a single breathing act. Mouth pressure and carbon dioxide concentration in real time are displayed and allow the breathing subject to apply a biofeedback technique on pressure and stabilize the expiration flow to a standard value making sampling repeatable and reliable. It is therefore the necessary front end to real time VOCs analyzer and an indispensable tool in breath research to get comparable results.

The present activity on this promising research tool is an extensive validation on repeatability and variability on different patient groups location and on a variety of molecules monitors.



## Technical features

- + real time CO<sub>2</sub> (1) and airway pressure (2) measurement
- + disposable filter and sterilizable components
- + heated tube and heated line to extract breath
- + automatic report generation and USB memory stick data storage
- + touch LCD panel
- + userfriendly software interface
- + ergonomic design by Isao Hosoe
- + external analyzer acquiring and triggering (3)

Analog input

+ range: 0 - 10V

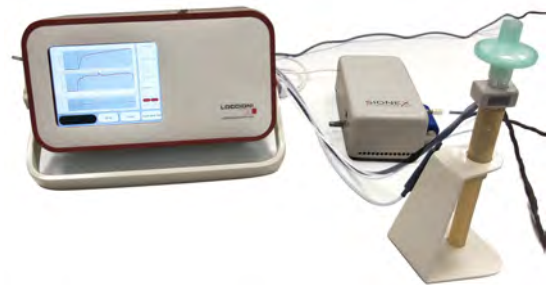
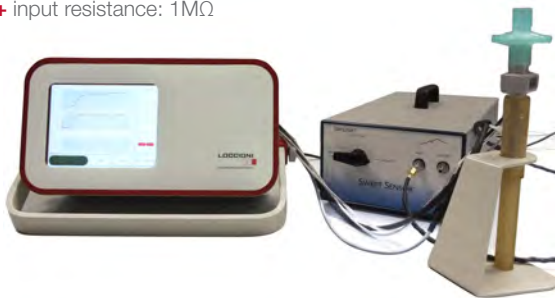
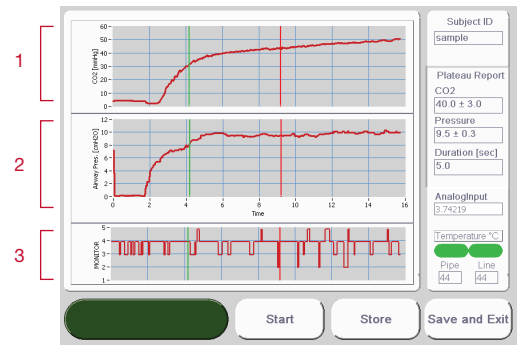
+ sampling rate: 50Hz

+ input resistance: 1MΩ

Trigger output

+ range: TTL 5V compatible

+ max output current: 20mA



## Sensors Technical Specification

Specification	CO <sub>2</sub>	Pressure
<b>Sensor Technology</b>	NDIR mainstream capnograph	Differential pressure transducer
<b>Response Time (10-90%)</b>	Less than 60 ms	Max 14 ms
<b>Measurement Range</b>	0 - 150 mmHg (0 - 19.7%)	± 25 mbar
<b>Accuracy</b>	± 2 mmHg in the 0 - 40 mmHg range	± 1% FSS
<b>Resolution</b>	0.1 mmHg	0.0025 mbar
<b>Sampling Rate</b>	50Hz	50 Hz