

Research Spirometry System



This complete spirometry system is for use in any application where airway flow and pressure are measured. Flow is measured using the differential-pressure method. As gas flows through the pneumotach, the microprocessor-based system converts the measured differential pressure to volumetric flow rate. Flow and pressure measurements are used to calculate several ventilator management parameter such as respiratory rate, lung compliance, tidal volume, minute volume, positive and expiratory pressure, etc.

This spirometer has a graphic LCD which shows flow, pressure, and volume strip-chart plots as well as flow-volume and pressure-volume loops. Calculated parameters are also displayed on the screen.

The system can also be interfaced to a computer through a serial data port. A Windows™ software program is available separately and permits acquisition of waveforms and data obtained by the spirometer. It may be displayed, stored or viewed using this program.

Flow, pressure, volume, and auxiliary pressure signals are available as analog outputs for convenient and reliable interfacing to a strip chart recorder, oscilloscope or other instruments.

This system works with precision molded fixed-orifice pneumotachs. They do not require any user calibration and are available in two sizes. These pneumotachs are robust even under the extreme heat and moisture conditions. This system is also designed to work with a wide range of linear (Fleisch and Hans Rudolph) differential pressure pneumotachs.

- Measure pressure, flow and definitive parameters
- For spontaneously breathing or mechanically ventilated subjects
- Large graphic display
- Two different sized sensors available for a wide range of applications
- Dual pressure measurements
- Data displayed in real time
- Calculates over 15 respiratory parameters
- Can be interfaced to a computer
- No calibration needed
- Works with a wide range of pneumotachs

Specifications

Calculated Parameters Positive end expiratory pressure, peak inspiratory pressure, mean airway pressure, inspiratory pause pressure, compliance, tidal volume, minute volume, respiratory rate, inspiratory and expiratory time, inspiratory to expiratory ratio (I:E), peak inspiratory and expiratory flow rates

Flow:

Accuracy ±3% of Reading
Large Sensor ±1.0 to 180 LPM
Small Sensor ±0.24 to 40 LPM

Resolution:

Large Sensor 0.1 LPM
Small Sensor 0.01 LPM

Linear Pneumotach (Sensor Dependent):

Accuracy ±1%, Typical
Range ±1000 LPM Max.

Auxiliary and Airway Pressure:

Accuracy ±2% of Reading
Range ±120 cm H₂O
Resolution 0.2 cm H₂O

Power Universal Input 90 to 264 VAC, 47 to 63 Hz, 3 W

Certification CE Mark IEC 61010

Catalog No.	Product
CGS-8262.68	Research Spirometry System
CGS-8263.68	Research Spirometry Software
CGS-8264.68	Small Sensor with Tubing, ±0.24 to 40 LPM
CGS-8265.68	Large Sensor with Tubing, ±1.0 to 180 LPM
CGS-8266.68	RS232 Serial Cable