

## Student Spirometer and Dry Gas Meter



### Harvard Student Spirometer

The ideal spirometer offers so little resistance to the movement of air to and from the subject's lungs that it does not affect the subject's respiratory movements. As a teaching device, this spirometer has a number of important extra features:

- Double channel air line valve for open/closed circuit work that connects subject to atmosphere while regulating his/her breathing and becoming accustomed to apparatus. When valve is turned, line is connected to Spirometer, making it possible to determine exact moment test starts.
- 600 ml transparent canister can be placed in or out of circuit and can hold color-indicating absorbent.

- 9 liter capacity
- 30 mm ID airways result in nearly 50% greater cross-sectional area than traditional 22 mm bore tubing
- A one-way air valve with mica disc construction minimizes resistance
- Counterweight minimizes weight of gas holder
- For use with Transducer Interface and Student Oscillograph

The Spirometer is equipped with a low inertia potentiometer which provides resistance changes as a function of volume changes. This transducer is activated by the movement of the bell and is powered by two 1-1/2 volt batteries supplied. The 300 mV signal produced is suitable for recording.

The Spirometer housing is made of heavy plastic 6.5 mm (1/4 in) thick. It measures, H x W x D, 300 x 375 x 375 mm (12 x 15 x 15 in) overall. This Spirometer is supplied complete with tubing, mouthpiece, nose clip and a battery powered transducer with cable. It is also supplied with three cartridge pens and a pen arm for kymograph recording.

Catalog No.	Product
CGS 8279.68	Harvard Student Spirometer
CGS 8280.68	Color-Indicating CO <sub>2</sub> Absorbent, 3 kg (6.5 lb), 5 to 10 mesh
CGS 8281.68	Disposable Cartridge Pens, pkg. of 6
CGS 8282.68	Spare Pen Arm
CGS 8283.68	Replacement Transducer Cable, miniature stereo jack to 7-pin Binder; for direct connection of Spirometer's transducer to AH 50-8861 Transducer Interface
<b>Descontinuado</b> CGS 8284.68	Replacement Transducer Cable, miniature stereo jack to Deutsch connector



### Dry Gas Meter

This industrial Meter has been adapted for experimental use. It is a diaphragm-type, positive displacement Meter that is accurate to  $\pm 1.5\%$ .

- Ideal for measuring the volume of expired gases collected in Douglas Bags or the volume of gases drawn through a system

The inlet and outlet tubing connections fit the two most frequently selected hose sizes for gas equipment. Hoses with a nominal bore of 22 mm fit directly onto the first step of the connectors. A tapered fitting accepts the 30 mm airway systems with such equipment as Harvard Douglas Bags.

An optically-coupled detector drives a 4-digit LED display in cumulative 0.1 liter increments from 0.1 to 999.9 liters maximum with an electrical zero reset. A 2.5 mm output socket produces a TTL compatible, 5 V pulse with each 0.1 liter increment.

This Meter is portable. It measures, H x W x D, 30 x 20 x 17.5 cm (12 x 8 x 7 in), weighs 4 kg (9 lb) and operates on one 9 V transistor battery (included).

Catalog No.	Product
CGS-8285.68	Dry Gas Meter, 230 V
CGS 8286.68	Dry Gas Meter, 220 V
CGS 8287.68	Dry Gas Meter, 115 V