

Gilian®

GILIBRATOR-2® Diagnostic Calibration System

Primary standard accuracy and performance validation for sampling pump airflows from 1 cc to 30 L/pm

Sensidyne's GILIBRATOR-2® System provides the user with a convenient and highly automated way to check almost any commercially available air sampling pumps for proper air flow function before their deployment.

The system consists of an electronic GILIBRATOR-2® Base, which is used with any of three sizes of wet bubble cells. It can also be used with a new soapless piston-type cell, offering the ultimate in convenience and fast setup.

These patented interchangeable components are also available as part of kits which can also include a complete calibration diagnostic panel. All cells use a twist-on bayonet design for quick and easy mounting to the base.

Sensidyne recommends calibration of your Gilibrator System, whether wet cell or soapless dry cell, at least once a year.





The Gilibrator 2 Base can be used with any of three wet cells (left) or the unique new soapless piston cell – shown mounted on the base

GILIBRATOR-2[®] Base

Easy to operate, microprocessor-controlled unit features simple on/off and reset touchpad with large LCD screen that displays flow rate, the calculated average of multiple flow samples in a series, and the sample number. Light in weight, it operates with either AC power or rechargeable NiCad batteries (8 hour life), for easy portability in either the lab or the field.



GILIBRATOR-2[®] Diagnostic Kits

Offers the industrial hygienist a complete, portable calibration laboratory.

Consists of GILIBRATOR-2[®] Base with either three wet bubble cells or one soapless piston cell in a cushioned carrying case, with a full diagnostic panel built into the top lid of the case. The panel uses an interchangeable rotameter design for 2 - 5,000 cc flow capability and will run any of several diagnostic tests:

- "Load" simulation – Offers two load simulations for high and low flows to imitate line backpressures.
- Back pressure reading – A built-in Magnehelic[®] gauge allows visual monitoring of in-line backpressures up to 30 inches H₂O.
- Leak checking – Built-in Magnehelic[®] gauge allows visual leak testing and monitoring capabilities.
- Pump flow adjustment – Rotameters allow instant visual indication of approximate flow rates, assisting in properly adjusting airflows.

Specifications

Low Flow Wet Cell

Dimensions: 2"W x 4"H x 2.1"D (51W x 102H x 53D mm) Weight: 0.4 lbs. (.18 kg)

Standard Flow Wet Cell

Dimensions: 2.5"W x 6"H x 2.6"D (64W x 152H x 66D mm) Weight: 0.82 lbs. (0.37 kg)

High Flow Wet Cell

Dimensions: 3.5"W x 8.1"H x 3.7"D (89W x 206H x 94D mm) Weight: 2.26 lbs. (1.02 kg)

Piston Soapless Cell

Dimensions: 4.0"W x 9.6"H x 7.5"D (102W x 244H x 191D mm)

Weight: 2.74 lbs. (0.24 kg)

Flow Range, Accuracy

Low Flow Wet Cell, 1 - 250 cc/min., ±1% of reading accuracy; Piston Soapless Cell,

1 - 5 L/pm, ±3% of reading accuracy; Standard Flow Wet Cell, 20 cc to 6 L/pm, ±1% of reading accuracy;

High Flow Wet Cell, 2-30 L/pm, ±1% of reading accuracy

Temperature Limits:

Operating Temperature: 5° to 35°C (41o to 95°F); Storage Temperature: 0° to 50°C (32° to 122°F)

Electrical:

DC Power Source: Internal Battery Pack; AC Power Source: Continuous operation through adapter/charger;

Battery Charge Time: 14 Hrs.; Expected Battery Life: over 300 charge/recharge cycles; Transmission Link:

RS-232; Interface Connectors: Charger Jack (2.1 mm barrel jack), Printer Jack (DB-25), Sensor Jack - Piston Cell (DB-15), Sensor Jack - Wet Cell (DB-9)

Wet Cells

Three bubble-type cells are available, for airflow ranges of:

- 1 to 250 cc (low flow cell);
- 20 cc to 6 L/pm (standard flow cell); and
- 2 to 30 L/pm (high flow cell)

When used with the GILIBRATOR-2[®] Base, these unique, interchangeable wet cells automatically generate perfect bubble films at the touch of a button, using infrared technology to read the bubble flow rate, which is then calculated and displayed.

Piston Cell

This unique cell uses a soapless piston-type design to provide a primary flow standard for air flows from 1 to 5 L/pm. Based on a nearly frictionless piston, it is ideal for field or lab environments where the user may prefer a liquid-free instrument, assuring accuracy and reproducibility.



Optional Printer, PC Interface Kit

An optional thermal dot matrix printer is available for hard copy printouts of calibration data and can be included in Kits. Also optionally available is a new Windows[®] compatible PC Interface Kit for real-time data download to and manipulation with a personal computer. It includes a cable for connecting the computer to the RS-232 port of the GILIBRATOR-2[®] Base, as well as PC software that allows the user to log in pump and calibrator serial numbers, data, operator name, flow rates, averaging data, number of samples, sample sequence, and standard deviation data



Gilian[®]