

Gilibrator® 2^{USB}

Primary standard accuracy and performance validation for sampling pump air flows from 1 cc/min to 30 LPM

Sensidyne's Gilibrator 2 System provides users with a convenient and highly automated way to check almost any commercially available air sampling pump for proper air flow function before deployment. The system consists of an electronic Gilibrator 2^{USB} Base which is used with any of three sizes of flow cells. These 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. All are certified for accuracy and traceable to NIST. Sensidyne recommends calibration be checked annually by a certified laboratory.

Calibration Cells

Three flow cells are available, for air flow ranges of 1 to 250 cc/min (low flow cell), 20 cc/min to 6 LPM (standard flow cell) and 2 to 30 LPM (high flow cell). These interchangeable cells generate perfect bubble films at the touch of a button. Infrared sensors read the bubble flow rate, which is then calculated and displayed. ISO 17025 calibration certificates available from Sensidyne.

Gilibrator 2^{USB} 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 batteries (8-hour life) for easy portability in either the lab or the field.



Deluxe Diagnostic Kit

Gilibrator 2^{USB} Diagnostic Kit

This kit offers the industrial hygienist a complete, portable calibration laboratory: a Gilibrator 2^{USB} Base, three flow cells, a cushioned carrying case, and a full diagnostic panel built into the top lid of the case. The panel uses a selectable rotameter design for 2 to 5,000 cc/min flow capability and will run any of several diagnostic tests:

- "Load" simulation – Offers two load simulations for high and low flows to imitate sample line back-pressures.
- Back-pressure reading – A built-in Magnehelic® gauge allows visual monitoring of in-line back-pressures up to 40" H₂O (10 kPa).
- 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 air flows.

PC Interface – Flow Monitoring Software

Downloadable software enables real-time data transfer to a PC, enabling analysis of current flow rate, average flow rate, sample number, and standard deviation. Charge calibrator and/or connect to PC through a USB-A to USB-B cable, provided with all kits.

Gilibrator 2^{USB} Part Numbers & Descriptions

Item	Part No.	Model	Description
Low Flow Cell Kit (1 to 250 cc/min)	800272 800272-2 800272-2-UK	US cord EU Cord UK Cord	Control base, low flow cell, DC charger/AC power supply, tubing and soap solution with dispenser in hard shell carry case.
Standard Flow Cell Kit (20 cc/min to 6000 cc/min)	800271 800271-2 800271-2-UK	US cord EU Cord UK Cord	Control base, standard flow cell, DC charger/AC power supply, tubing and soap solution with dispenser in hard shell carry case.
High-Flow Cell Kit (2 to 30 LPM)	800270 800270-2 800270-2-UK	US cord EU Cord UK Cord	Control base, high flow cell, DC charger/AC power supply, tubing and soap solution with dispenser in hard shell carry case.
Deluxe Cell Kit (All Three Cell Sizes)	801804 801804-1 801804-1-UK	US cord EU Cord UK Cord	Control base, three interchangeable cells for low, standard and high flow rates, DC charger/AC power supply, tubing and soap solution with dispenser, in hard shell carry case. Thermal printer not included, but available as option.
Low Flow Cell Diagnostic Kit	800844-1 800844-1-230 800844-1-230-UK	US cord EU Cord UK Cord	Same items as low flow cell kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.
Standard Flow Cell Diagnostic Kit	800844-2 800844-2-230 800844-2-230-UK	US cord EU Cord UK Cord	Same items as standard flow cell kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.
Deluxe Cell Diagnostic Kit	800844-5 800844-5-230 800844-5-230-UK	US cord EU Cord UK Cord	Same items as Deluxe Cell Kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.
Gilibrator 2 USB Control Base only	850190-1-R		Replacement Gilibrator 2 USB base with battery pack. Charger and Cables not included.
Gilibrator 2 USB Charger and Cables	811-0507-01-R 811-0509-01-R 811-9943-01-R 780-0015-05-R		Universal Wall Power Adapter with USB-A to USB-B cable Universal Wall Power Adapter only Cable, USB-A to USB-B, 6 ft (1.83m) long Cable for Smart Cal application
Low Flow Sensor & Cell Assembly (1 to 250cc)	800267-1		Sensor and cell assembly only. Includes calibration certificate.
Standard Flow Sensor & Cell Assembly (20cc to 6 LPM)	800266-1		Sensor and cell assembly only. Includes calibration certificate.
High Flow Sensor & Cell Assembly (2 to 30 LPM)	800265-1		Sensor and cell assembly only. Includes calibration certificate.
9-pin to 25-pin printer cable only	811-0508-01		RS-232 connecting cable from base to 25-pin printer socket
Replacement Battery Pack	700560		For Gilibrator 2 Control Base only.
Replacement Battery Pack	400692		For Gilibrator Control Base only.
Bubble Solution (8 oz.)	800450		For both Gilibrator and Gilibrator 2.
Bubble Solution Dispenser	400667		For both Gilibrator and Gilibrator 2.

Low Flow Cell Dimensions:	2W x 4H x 2.1"D (51W x 102H x 53mmD)
Weight	0.4 lbs. (.18 kg)
Standard Flow Cell Dimensions:	2.5W x 6H x 2.6"D (64W x 152H x 66mmD)
Weight	0.82 lbs. (0.37 kg)
High Flow Cell Dimensions:	3.5W x 8.1H x 3.7"D (89W x 206H x 94mmD)
Weight	2.26 lbs. (1.02 kg)
Flow Range, Accuracy	
Low Flow Cell	1 - 250 cc/min, ±1% of reading accuracy*
Standard Flow Cell	20 cc/min to 6 LPM, ±1% of reading accuracy*
High Flow Cell	2-30 LPM, ±1% of reading accuracy
Temperature Limits	
Operating Temperature	5° to 35°C (41° 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 USB adapter/charger
Battery Charge Time	15 Hrs
Expected Battery Life	Over 300 charge/recharge cycles

* Or 0.001 LPM, whichever is greater



Gilibrator 2^{USB} shown calibrating the GilAir Plus air sampling pump, with optional Printer Kit and Bubble Soap Solution.

