

## **Gilian Gilibrator-2**

# 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 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 factory calibration of your Gilibrator System at least once a year.

#### **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 Sensdune.

#### 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 batteries (8-hour life) for easy portability in either the lab or the field.



#### Gilibrator-2 Diagnostic Kit

Offers the industrial hygienist a complete, portable calibration laboratory. Consists of Gilibrator-2 Base with three flow cells in a cushioned carrying case, with 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.

#### Optional PC Interface Kit

A PC Interface Kit is available for real-time data download and manipulation. The kit includes a cable for connecting a computer to the RS-232 port of the Gilibrator-2 Base, as well as software that allows the user to log pump and calibrator serial numbers, data, operator name, flow rates, averaging data, number of samples, sample sequence, and standard deviation data.







### Gilibrator-2 Part Numbers & Descriptions

| Item   | Part No.                                    | Model                         | Description   |
|--|---|-------------------------------|---|
| Low Flow Cell Kit (1 to 250 cc/min)                  | 800272                                      | US Cord                       | Control base, low flow cell, DC charger/AC power supply, tubing and soap  |
|  | 800272-2<br>800272-2-UK                     | EU Cord<br>UK Cord            | solution with dispenser in hard shell carry case.   |
| Standard Flow Cell Kit (20 cc/min to 6000 cc/min)    | 800271                                      | US Cord                       | Control base, standard flow cell, DC charger/AC power supply, tubing and soap solution with dispenser in hard shell carry case.                   |
|  | 800271-2<br>800271-2-UK                     | EU Cord<br>UK Cord            |   |
| High-Flow Cell Kit (2 to 30 LPM)                     | 800270                                      | US Cord                       | Control base, high flow cell, DC charger/AC power supply, tubing and soap solution with dispenser in hard shell carry case.                       |
|  | 800270-2<br>800270-2-UK                     | EU Cord<br>UK Cord            |   |
| Deluxe Cell Kit (All Three Cell Sizes)               | 801804                                      | US Cord                       | Control base, three interchangeable cells for low, standard and high flow rates, DC   |
|  | 801804-1<br>801804-1-UK                     | EU Cord<br>UK Cord            | 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                                    | US Cord                       | Same items as low flow cell kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.                       |
|  | 800844-1-230<br>800844-1-230-UK             | EU Cord<br>UK Cord            | man otamota o ana procesa o gauga.  |
| Standard Flow Cell Diagnostic Kit                    | 800844-2                                    | US Cord                       | Same items as standard flow cell kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.                  |
|  | 800844-2-230<br>800844-2-230-UK             | EU Cord<br>UK Cord            |   |
| Deluxe Cell Diagnostic Kit                           | 800844-5<br>800844-5-230<br>800844-5-230-Uk | US Cord<br>EU Cord<br>UK Cord | Same items as Deluxe Cell Kit, but carry case also includes built-in diagnostic panel with rotameters and pressure gauge.                         |
| Calibrator Control Base                              | 850190-1                                    |                               | Includes Battery Pack. Charger sold separately.   |
| Control Base Charger                                 | 911-0501-US-R                               | US Cord                       | Single Unit Charger w/ Power Adapter, USB Gillibrator-2-US cord   |
|  | 911-0501-EU-R                               | EU Cord                       | Single Unit Charger w/ Power Adapter, USB Gillibrator-2-EU cord   |
|  | 911-0501-UK-R                               |                               | Single Unit Charger w/ Power Adapter, USB Gillibrator-2-UK cord   |
|  | 911-0501-NO-R                               | NO Cord                       | Single Unit Charger w/ Power Adapter, USB Gillibrator-2-NO cord   |
| 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) |   |                               | 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.  |
| Replacement Battery Pack                             | 700560                                      |                               | For Gilibrator-2 Control Base only.   |
| Replacement Battery Pack                             | 400692                                      |                               | For Gilibrator Control Base only.   |
| PC Interface Kit                                     | 811-0501-01                                 |                               | Includes special RS-232 connecting cable with USB adapter and software  |
| Bubble Solution (8 oz.)                              | 800450                                      |                               | For both Gilibrator and Gilibrator-2.   |
| Bubble Solution Dispenser                            | 400667                                      |                               | For both Gilibrator and Gilibrator-2.   |

| Gilibrator-2 Specifications           |   |  |
|---------------------------------------|---|--|
| 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:            | $3.5W \times 8.1H \times 3.7$ "D (89W × 206H × 94mmD) |  |
| Weight                                | 2.26 lbs. (1.02 kg)                                   |  |
| Flow Range, Accuracy<br>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 adapter/charger          |  |
| Battery Charge Time                   | 15 Hrs  |  |
| Expected Battery Life                 | Over 300 charge/recharge cycles                       |  |
| + 0-0001 LDMbisbit                    |   |  |



 $<sup>^{\</sup>star}~$  Or 0.001 LPM, whichever is greater