

# FlowKit Mass Flow Generator

Delivers high flow rates for large animal respirometry applications

The FlowKit™ combines a low-noise pump and mass flow meter that accurately, quietly and economically provides large flow rates. It is designed for applications such as animal respirometry or air circulation in controlled environments. Available in 3 different models the FK Series offers flow rates from 5-1,650 liters per minute.

The mass flow generator modulates a powerful but quiet pump in order to create a stable mass flow rate. Ultra-efficient PID (proportional integral derivative) control is used for quick response to setpoint changes and minimal variation from the set mass flow rate.

An integrated sub-sampling pump simplifies plumbing to respirometry systems.

The Flow Kit has both analog and serial outputs for easy connection to a data acquisition system. It reports mass flowrates that are corrected to 1 atm pressure and 0° C. It also features a user-configurable alarm to alert users locally and remotely if a fault develops.



## FEATURES

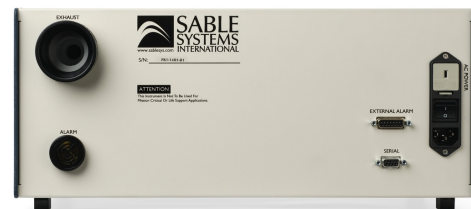
Employs PID modulated rotary pumps instead of variable resistance flow generators, for quiet and efficient operation

User can calibrate and change multiple settings on the instrument, with flow set-point and actual flow displayed during operation

Wide ranges of 5-100, 50-500, and 400-1650 SLPM

Ideal for medium to large mammals, from goats up to elephants or whales

Long-life pump with very low noise



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## SPECIFICATIONS

<b>ACCURACY AND RESOLUTION</b>	Accuracy better than 2% of full scale typical, resolution 1 liter
<b>ANALOG OUTPUT</b>	BNC
FK-100	0-5V for multiple ranges: Available ranges are 0-20 L/Min, 0-50 L/min , 0-100 L/min, 0-200 L/min.
FK-500	0-5V for multiple ranges: Available ranges are 0-200 L/min, 0-500 L/min , 0-1000 L/min or 0-2000 L/min.
FK-2000	0-5V for multiple ranges: Available ranges are 0-500 l/min, 0-1000 L/min 0-2000 L/min, 0-2000 L/min
<b>CONTROL ALGORITHM</b>	PID (Proportional-Integral-Derivative) control for optimum stability; all PID parameters are user-adjustable
<b>OPERATING TEMPERATURE</b>	5 - 45 degrees C, relative humidity non-condensing
<b>PANEL DISPLAY</b>	Digital, 2 x 16 alphanumeric LCD
<b>RANGE</b>	
FK-100	5-100 L/min STP
FK-500	50-500 L/min STP
FK-2000	400-1650 L/min STP
<b>SERIAL OUTPUT</b>	RS232-8N1; baud rate 9600; both polled and broadcast modes available
<b>TECHNOLOGY</b>	Calibrated, linearized mass flow meter and efficient, controllable rotary pump
<b>CONNECTIONS</b>	Main flow - cam & groove 1.5-inch coupler (FK-2000 has 2-inch coupler); sub sample - nickel-plated barb fittings for 1/8 in (3mm) ID flexible or semi-rigid tubing
<b>RECOMMENDED CALIBRATION INTERVAL</b>	1 Year
<b>POWER REQUIREMENTS</b>	Input 90to 240VAC, 750W max power draw
<b>DIMENSIONS (W X D X H)</b>	17 x 15 x 8 in. (43.2 x 38.1 x 20.3 cm)
<b>WEIGHT</b>	20 lbs. (9.1 kg)

## ABOUT US

Sable Systems International designs and manufactures leading-edge gas, metabolic and behavioral measurement systems for calorimetry, respirometry, metabolic/behavioral phenotyping, and gas analysis. Our products enable the highest precision and resolution, optimum workflow and reliable performance – giving you utmost confidence in your results. Scientists the world over rely on Sable technology for their research needs in physiological, biomedical, environmental, and gas analysis applications.



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