



CWE-SAR-830/AP

Small Animal Volume-Pressure Ventilator



Standard Features

- Pressure or volume-cycled
- Pressure cycling prevents hyperinflation of tiny animal lungs
- External lung pressure monitoring in pressure-cycling mode
- Wide tidal volume and rate range
- Internal air pump
- Safe with oxygen and anesthesia
- Mice to guinea pig size
- Expandable for larger animals
- Dependable, all-electronic ventilator

The Small Animal Ventilator, suitable for a mouse or guinea pig, operates as either a volume or pressure-cycled ventilator, meaning that it dispenses a designated volume of air with each breath or it ventilates until a designated lung pressure is reached. Pressure-cycled ventilation prevents hyper-inflation of small animal lungs.

When the ventilator operates in Volume mode, it dispenses a known airflow into the lungs for a set inspiratory time to generate the desired tidal volumes. The three controls – respiratory rate, inspiratory time and flow rate – allow for accuracy and extraordinary flexibility over a wide range of volumes, breaths-per-minute and I/E ratios.

When the ventilator operates in Pressure mode, a built-in solid-state transducer monitors airway pressure. Simply set the desired end-inspiratory pressure. During inspiration, airflow is introduced into the lungs until this pressure is reached, at which

point inspiration is terminated. This mode is especially useful for tiny animals, where hyperinflation of the lungs is a danger. An output voltage corresponding to airway pressure is provided for external monitoring or recording.

The SAR-830/AP ventilator comes with an internal air pump, but it can also connect with an external pressurized air or gas source for operation. This can be any suitable breathing gas within the required pressure range or the output from an anesthesia machine. It is compatible with inhalation anesthetics and oxygen.

This unit may be expanded to ventilate larger animals or multiple small animals simultaneously by adding external valve assemblies. A metered flow source is required for each external valve assembly. These valves are available for animals ranging in size from mice to large dogs.



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SPECIFICATIONS

RESPIRATORY RATE RANGE	5-200 breaths/min
TIDAL VOLUME RANGE*	0.2 - 35ml
INSPIRATION TIME RANGE	0-5.00 seconds
INSPIRATORY FLOW RATE RANGE	0-1000 ml/min
PRESSURE CONTROL RANGE	0-50.0 cmH2O
ANALOG RATE OUTPUT VOLTAGE	10mV/breath/min
ANALOG PRESSURE OUTPUT VOLTAGE	50mV/cmH2O
LOGIC SYNC OUT VOLTAGE	5V (TTL)
POWER REQUIREMENTS	120/240VAC, selectable
INPUT PRESSURE RANGE**	3-20 psi
DIMENSIONS	9Wx5.5Hx9D in (23x14x23 cm)

* Using internal valves. External valve assemblies available for larger animals.

** No pressure source required for model SAR

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