

VentElite

Ventilator for Small Rodents



KEY FEATURES

- Easy to use color touchscreen
- Option for pressure or volume control in a single ventilator
- Over and under pressure alarms
- Manual or programmable Sigh
- Inspiratory or Expiratory Hold
- Adjustable I:E

The VentElite was designed for small animal research applications and is intended for use on subjects ranging in size from mice to guinea pigs. The goal in designing this ventilator was to maintain versatility and ease of use while fostering safe and physiologically accurate mechanical ventilation conditions.

The VentElite utilizes advanced piston/cylinder and valve assemblies, combined with microprocessor controlled actuation mechanisms to precisely control respiration profiles. The VentElite has two operating modes, Volume Control and Pressure Control, and allows users to easily toggle between these two modes via the "Settings" button on the large touch screen. The Volume Control mode delivers the desired tidal volume to the subject by precisely controlling the stroke of the piston. The Pressure Control mode allows the user to set the peak inspiratory pressure (PIP) value, and adjusts the tidal volume as necessary to maintain the set PIP.

Features of the VentElite include manual or programmable Sigh, Inspiratory or Expiratory Hold, adjustable I:E, built in PEEP, audible alarms, and a real-time graphical representation of the detected pressure.

Harvard Apparatus VentElite

Specifications	
Suggested Weight Range	10 g to 1 kg
Species	Mouse to Guinea Pig
Port Sizes	
To Animal and Source	3.6-3.8 mm (0.14-0.15 in)
From Animal and Exhaust	4.0 mm (0.16 in)
Control Modes	Volume or Pressure
Tidal Volume Range	50 µl to 5 ml
Tidal Volume accuracy	0.1 μl
Tidal Volume resolution	1 µl
Peak Inspiratory Pressure (PIP)	0-50 cmH₂O
PIP accuracy	± 0.7 cmH ₂ O*
PIP resolution	1 cmH₂O
Breath Rate	10 to 300 bpm
I:E Ratio	20-80%
Gas Supply	Room air or nonflammable mixed gas**
Sigh Frequency	Every 10-999 breaths or manual
Sigh Breath	0-20% of tidal volume (in Volume Mode) or PIP (in Pressure Mode)
Safety Alarms	Over- and under-pressure
Signal Input	TTL, 0-5 VDC
Signal Output	TTL, 0-5 VDC, 5 mA
Remote Communication	RS-485
Display	7" LCD touchscreen, resistive
Power Supply	100-240 VAC, 50/60 Hz
Input Power	15V DC, 25 W
Input Power Connector	2.5 mm ID x 5.0 mm OD plug
Dimensions (W x D x H)	31.8 x 20.3 x 17.8 cm (12.5 x 8.0 x 7.0 in)
Weight	3.4 kg (7.6 lbs)
Warranty	2 years

* PIP accuracy is a reflection of the most ideal conditions and may differ depending on specific set up

**Use of a pressurized gas source with the VentElite requires the use of a connection kit.

Ordering Information	
Order#	Product
55-7040	VentElite, Ventilator for Small Rodents*
73-4876	Respiration Tube Kit for VentElite, Rat
73-4899	Respiration Tube Kit for VentElite, Mouse
73-4872	Connection Kit for VentElite

* Requires the use of the 73-4872 Connection Kit when used with a high pressure gas source





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