Item	*Significance*	*Range Lower Bound*	*Range Upper Bound*	*Error Sources*	*Error*	*Max. Error*
Peak Inspiratory Pressure	Highest Pressure experienced by lungs during breath delivered	0 cmH2O	120 cmH2O	1 Pressure Sensor	0.25%	0.30 cmH2O
Extrinsic Peak End-Expiratory Pressure	Continuous pressure delivered by PEV to prevent collapse of lungs	0 cmH2O	20 cmH2O	1 Pressure Sensor	0.25%	0.05 cmH2O
Overpressure Alarm	Prevents accidental barotrauma to patient	N/A	110 cmH2O	1 Pressure Sensor	0.25%	0.28 cmH2O
Tidal Volume	Total volume delivered to lungs	50mL	2000mL	1 Flow Sensor	2%	40mL
Inspiration Time	Time in which breath is delivered and allowed to remain in lungs	0.3 sec	9.9 sec	1 Flow Sensor's Time Delay		
Breath Rate	Number of breaths delivered per minute	0 bpm	80 bpm	1 Flow Sensor's Time Delay		
Rise Time	Time in which breath is delivered	0.1 sec	0.9 sec	1 Flow Sensor's Time Delay		
Automatic Mode	Intended to be used without the full attention of medical staff, should be able to self-adjust to changing circumstances or alarm if incapable of doing so					
Manual Mode	Intended to be used by medical staff, check alarms and output readings					
CPR Mode	Intended to count time of compressions and deliver measured breaths, check that counting is correct			1 Flow Sensor's Time Delay		
Assist Mode	Intended to adjust in relation to patient's respiratory efforts, check sensitivity	1mL	50mL	1 Flow Sensor	2%	1mL
Mean Airway Pressure	Correlates with alveolar ventilation and barotrauma $M_{PAW} = \frac{f * T_i}{60} * (P_{IP} - PEEP) + PEEP$	0 cmH2O	99 cmH2O	1 Flow Measure[1], 3 Pressure Measures[2]	0.62%[3]	0.61 cmH2O
Intrinsic Peak End-Expiratory Pressure	Also known as Auto-PEEP, represents air left in the lungs after expiration, can prevent oxygen-rich air from entering if not managed properly	3 cmH2O	5 cmH2O	2 Pressure Sensors[4]	0.5%	0.03 cmH2O

[1]Highest error is caused by lowest flow. The lowest common breath rate is 6 bpm which, for our 1L lung, requires 6Lpm.

[2]Highest error is caused by lowest pressure (which will tend to coincide with lowest flow). The lowest common pressure is 3cmH2O.

[3]Error Propagation Equation: $dM_{PAW} = |M_{PAW}|\left(\sqrt{\left(\frac{dQ}{Q}\right)^2 + \left(\frac{dP}{P} + \frac{dP}{P}\right)^2} + dP\right)$

[4]Error Propagation Equation: $dPEEP = |PEEP|(dP + dP)$