BIOVENT
A SERIES

BioBusiness

Biovent[A] NIV10™ Non-Invasive Ventilator

The Ultimate Device For All Types Of Respiratory Failure

New Paradigm In Healthcare

Specifications

Patient Types

Adult

Pediatric (≥8 kg)

High Flow Nasal Cannula HFNC & Noninvasive Ventilation NIV Modes

Setting Parameters	Modes									Range	Step
	HFNC	Turbo	CPAP	Auto CPAP	Bi-Level S	Bi-Level ST	Bi-Level VT	PCV A/C	PSV		
FiO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	21-100%	5%
Flow	✓	✓								Up to 80 LPM	0.5, 1 or 5 LPM
CPAP			✓							4-20 cmH2O	1 cmH2O
Max CPAP				✓						4-20 cmH2O	1 cmH2O
Min CPAP				✓						4-20 cmH2O	1 cmH2O
P Ramp			✓	✓						1-4	1 cmH2O
BioFlex			✓	✓	✓	✓	✓			Off,1,2,3	1 level
IPAP					✓	✓				4-30 cmH2O	1 cmH2O
Max IPAP					✓		✓			4-30 cmH2O	1 cmH2O
Min IPAP							✓			4-30 cmH2O	1 cmH2O
EPAP					✓	✓	✓			4-25 cmH2O	1 cmH2O
Min EPAP					✓					4-20 cmH2O	1 cmH2O
VT Target							✓	✓		Up to 2500	50 ml
PI								✓		4-30 cmH2O	1 cmH2O
PEEP								✓	✓	3-30 cmH2O	1 cmH2O
Ps									✓	3-30 cmH2O	1 cmH2O
P limit								✓	✓	25-50 cmH2O	1 cmH2O
Ramp Time			✓	✓	✓	✓		✓		0 - 60 min	1 min
Pr Support					✓					1- 10 cmH2O	1 cmH2O
Insp. Slope						✓	✓			0.2-4	0.1 sec
Exp. Slope					✓	✓				0.2-4	0.1 sec
Rate					✓	✓	✓	✓	✓	4 - 60 bpm	1 bpm
I:E					✓	✓	✓	✓	✓	9.9:1 to 1:100	0.1
Triggering					✓	✓	✓			6 steps	1 step
Cycling					✓	✓	✓			5 steps	1 step
Apnea Time								✓	✓	10 - 60 Sec	1 sec
Rise Time					✓	✓	✓	✓	✓	0.2 - 0.6 sec	0.1 sec
P Trigger								✓	✓	0.9 cmH2O	0.1 cmH2O
Flow Trigger								✓	✓	1 - 30 LPM	1 LPM
Exp. Sensitivity									✓	10 - 90%	5%

Mode Monitored Parameters

Parameters/Mode	Modes									Rang
	HFNC	Turbo	CPAP	Auto CPAP	Bi-level S	Bi-level ST	Bi-level VT	PCV A/C	PSV	
FiO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	0-100%
Flowrate	✓	✓	✓	✓	✓	✓	✓	✓	✓	Up to 80 LPM
Pressure			✓	✓	✓	✓	✓	✓	✓	0 - 99 cmH2O
I:E Ratio			✓	✓	✓	✓	✓	✓	✓	9.9:1-1:100
I:T Ratio								✓	✓	1%-95%
Breath Rate			✓	✓	✓	✓	✓	✓	✓	0 - 99 bpm
Tidal Volume			✓	✓	✓	✓	✓	✓	✓	0 - 3000 ml
Minute Volume			✓	✓	✓	✓	✓	✓	✓	0.0 - 99.9 L
Bioramp Time			✓	✓	✓	✓	✓			0 - 60 min
PIP								✓	✓	0 - 99 cmH2O
Peak Flow			✓	✓	✓	✓	✓	✓	✓	0 - 150 LPM
Flowrate leakage			✓	✓	✓	✓	✓	✓	✓	0 - 150 LPM
Insp. Time			✓	✓	✓	✓	✓	✓	✓	0 - 9.9 sec
Exp. Time								✓	✓	0 - 59.9 sec

Waveform Window

Pressure waveform
Flow waveform

Alarms

Technical Alarms

Obstruction, Low O2 Flow, Excessive O2 Flow, O2 Supply pressure, O2 Source Selection Error, Switchover to Battery, Battery Less than 10 minutes & 5 minutes, Change Filter, Apnea alarm, Hypopnea.

Clinical Alarms

High Tidal Volume, Low Tidal Volume, High Minute Volume, Low Minute Volume, High Airway Pressure, Low Airway Pressure.

Electrical Specifications

Internal Power Supply Specifications

Input Voltage	100-240VAC
Input Frequency	50/60 Hz
Rated Power	200 Watt

External DC Power Input

Input Voltage	24VDC

Internal Battery Specifications

Battery Type	Lithium-ion
Backup Time	6 hours
Battery Voltage	14.5 VDC
Nominal Capacity	6700mAh
Protection	Over/ Under voltage, Over Current, Cell balancing

Humidification

BioAir S320™: Servo Heated Wire Humidifier
BioAir M100™:Heated Humidifier

Gas Sources

Air Source (Blower)	Min. 40,000 Operating hours
Oxygen source 1	High Pressure 2.8 – 6 Bars
Oxygen source 2	Low Flow 0 – 60 LPM

Physical Specifications

Weight	5kg
Dimensions (in mm)	160 (H) X 265 (W) X 340 (D)
Display	LCD 5-inch screen
IP Class	IP20

Environmental Operating Conditions

Temperature	+5 - +40°C
Relative Humidity	15 - 95% (Non Condensing)
Barometric Pressure	79.9 - 101.1 kPa

Other Features

SD Card to export data
USB Port
Nurse Call
Serial port
Trends to view historic data
SPO2 (Optional)

Regulatory Compliance

IEC 60601-1 Ed 3.2 2020-08
IEC 60601-1-2 Ed 4.0 2014-02
IEC 60601-1-6 Ed 3.1 2013-10
IEC 60601-1-8 Ed 2.1 2012-11
IEC 60601-2-12 Ed 2.0 2001-10
ISO 80601-2-90:2021