All What You Dream of
for Your Patient Therapy

Technical Specifications

Environmental	
Temperature	
Operating conditions	+5 - +40 oC
Storage Conditions	-20 - +50 oC
Relative Humidity	
Operating conditions	15 - 95% (Non Condensing)
Storage Conditions	15 - 95% (Non Condensing)
Barometric Pressure	
Operation	79.9 - 101.1 kPa
Automatic Altitude Compensation	

Physical	
Weight	5kg
Dimensions	160 mm (Height) 265 mm (Width) 340 mm (Depth)

Electrical	
External	
AC Voltage	80 ~ 264 VAC
AC Frequency	50/60 Hz
AC Power	300 VA
Battery (Standard)	
Nominal Voltage	14.5 V
Capacity	6700 mAh
Battery type	Lithium-ion
Operating Time	Three Hours
External Power Supply 24V (Optional)	**24V/ 6A**

Standard Accessories

- Heated Wire Breathing Circuit.
- High Flow Nasal Cannula (Medium Size).
- NIV Mask (not included with BioHF).
- Low Flow O_2 inlet port.
- Servo control Humidifier (BioAir).
- Power & computer Cables.

Optional Accessories

- High Flow Nasal Cannula (Small, Medium Or Large Sizes)
- O_2 Flow Meter Up to 40 L/Min (French, German or English standard).
- Single use auto-refill humidifier chamber.
- Different sizes and types of Masks (Full face, Naso-oral & Nasal).
- Respiratory Hoods.
- SPO_2 sensors.

Supported by:

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The Ultimate Device
For All Types
Of Respiratory Failure

BioBusiness

BIOVENT
A SERIES

When Help Is Needed

Use BioVENT

BIOVENT A SERIES

Respiratory Insufficiency

SPO_2 Monitoring

Simple, and accurate monitoring of SPO_2 helps care giver/patient to monitor therapy effectiveness.

Oxygen Therapy (OT)

- Offers the Care Provider for the first time the option to select Low or High Velocity Oxygen Therapy, For Optimum patient tolerance and satisfaction.
- Wide variety of Nasal Cannula sizes selection.

Non-Invasive Ventilation (NIV)

Incorporates the following options:

- Bio-Flex, offers three levels of expiratory pressures for better sleep and for more patient comfort.
- Automatic Leakage compensation algorithm developed by BioBusiness team.
- PCV A/C could be used when full control over the patient breathing is required.

Invasive Ventilation (IV)

Incorporates the following options:

- Either of PCV A/C or VCV A/C could be used when full control over the patient breathing is required.
- SIMV and Bilevel ventilation modes are also available.
- Automatic detection in case of patient connected in optimum patient safety.
- Lung recruitment maneuvers.
- Precise Calculation of Tidal and minute volumes provides max safety.
- Proximal Airway pressure sensor, adds an extra safety to the system.
- Precise control of Expiratory valve, and an integrated Expiratory flow sensor provides an accurate estimation of expiratory flow and volume for better control and enhanced patient safety

The Right Partner

For Better Care

BIOVENT A SERIES

Oxygen Supply

Standard High Pressure Oxygen supply (2.8 – 6 Bars) from Gas Network or O_2 Cylinder with a Pressure Regulator.

This standard connection option, provides an automated precise FIO_2 control. Many thanks for the internal pressure regulators, high precision Proportional Valve, Advanced PID control and all safety and monitoring capabilities.

Nebulizer output works only with high pressure oxygen supply.

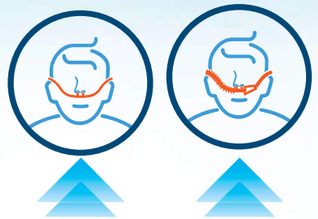
Optional Additional Low flow Oxygen supply (0 – 60 LPM) from O_2 concentrators or Flow meters.

Such optional connector is provided as an emergency/home care options in case Standard high pressure Oxygen supply is not available or in case of low patient demand for Oxygen.

In this option, FO_2 adjustment is related to the Manual/user adjustment of Oxygen flow. Desired FIO_2 could be achieved via the following table.

O_2 Flow (LPM)	Flow (LPM) / O_2%	4	6	8	10	15	20	25	30	35	40	45	50	55	60
2		60	47	41	37	32	29	27	26	26	25	25	24	24	24
4			73	60	52	42	37	34	30	30	29	28	27	27	26
6				80	68	52	45	40	37	34	33	31	30	30	29
8					84	63	52	46	42	39	37	35	34	32	31
10						73	61	53	47	44	41	39	37	35	34
15							80	68	61	55	50	47	45	43	41
20								84	74	66	60	56	53	50	47
30										89	80	74	68	64	61
40												91	84	78	74
50														93	87

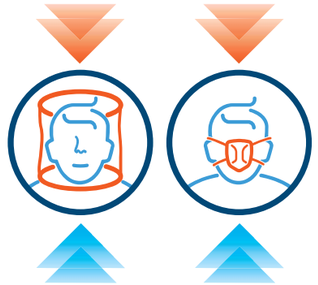
«HFNC FIO_2 conversion table - in case of Low Flow O_2 Supply »



BioHF

- High Flow Oxygen Therapy
- High Velocity Oxygen Therapy (Turbo mode)

+



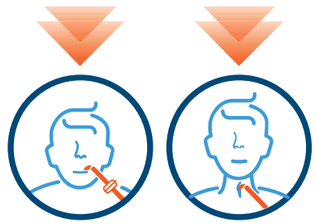
BioVENT NIV10

Non-Invasive positive pressure ventilation

All BioHF modes in addition to

- CPAP, Auto CPAP, BI-Level S, BI-Level S/T, BI-Level VT
- PCV A/C & PSV

+



BioVENT HV10

Invasive mechanical ventilation

All Single limb modes are similar to NIV10 in addition to Dual limb modes

- PCV, VCV, PSIMV, VSIMV, PSV, Bi-Level / APRV

BioVENT Incorporates All Therapeutic Options

Proven To Help Patients

BIOVENT A SERIES

Specifications Sheet													Specifications Sheet
	BioVENT HV10												
	BioVENT NIV10												
	BioHF												
	HFNC	Turbo	CPAP	AUTO CPAP	BI-Level S	BI-Level ST	BI-Level VT	PCV A/C	PSV	VCV A/C	P-SIMV	V-SIMV	Bilevel
Main Settings	"Flow 1-80 LPM"	"Flow 1-40 LPM"	"CPAP 4-20 cmH_2O"	"Max. CPAP 4-20 cmH_2O"	"IPAP 4-30 cmH_2O"	"IPAP 4-30 cmH_2O"	"Max. IPAP 4-30 cmH_2O"	"PI 3-40 cmH_2O"	"PS 3-30 cmH_2O"	"VT 100 - 2500 ml"	"PI 3-40 cmH_2O"	"VT 100 - 2500 ml"	"PS 3-30 cmH_2O"
	"FiO_2 21 - 100%"		"Pramp 1 - 4"	"Min. CPAP 4-20 cmH_2O"	"EPAP 4-20 cmH_2O"	"EPAP 4-25 cmH_2O"	"Min. IPAP 4-30 cmH_2O"	"PEEP 3-30 cmH_2O"	"PEEP 3-30 cmH_2O"	Pattern Squ./Descend.	"PS 3-40 cmH_2O"	Pattern Squ./Descend.	"PEEP H 3-30 cmH_2O"
			"BioFlex Off,1,2,3"	"Pramp 1 - 4"	"Max. IPAP 4-25 cmH_2O"	"Max. IPAP 4-30 cmH_2O"	"EPAP 4-25 cmH_2O"	"PLimit 25-50 cmH_2O"	"PLimit 25-50 cmH_2O"	"Flow Insp 1-80 LPM"	"PEEP 3-30 cmH_2O"	"Flow Insp 1-80 LPM"	"PEEP L 3-30 cmH_2O"
			"FiO_2 21 - 100%"	"BioFlex Off,1,2,3"	"Min. EPAP 4-20 cmH_2O"	"Min. EPAP 4-20 cmH_2O"	"VT Target 200 - 1500 ml"	"VT Target off, 100 - 2500 ml"	"VT Target off, 100 - 2500 ml"	"PEEP 3-30 cmH_2O"	"PLimit 25-50 cmH_2O"	"PS 3-40 cmH_2O"	"PLimit 25-50 cmH_2O"
				"FiO_2 21 - 100%"	"Pressure Support 0 - 10 cmH_2O"	"Pressure Support 0 - 10 cmH_2O"	"Max. VT Target 200 - 1500 ml"	"Max. VT Target 200 - 2500 ml"	"Max. VT Target 200 - 2500 ml"	"PLimit 25-50 cmH_2O"	"FiO_2 21 - 100%"	"PEEP 3-30 cmH_2O"	"FiO_2 21 - 100%"
					"BioFlex Off,1,2,3"	"BioFlex Off,1,2,3"	"Min. VT Target 200 - 1500 ml"	"Min. VT Target 200 - 1500 ml"	"Min. VT Target 200 - 1500 ml"	"FiO_2 21 - 100%"		"PLimit 25-50 cmH_2O"	
					"FiO_2 21 - 100%"	"FiO_2 21 - 100%"	"BioFlex Off,1,2,3"	"FiO_2 21 - 100%"	"FiO_2 21 - 100%"			"FiO_2 21 - 100%"	
							"FiO_2 21 - 100%"						
Time Control Settings	"T Therapy Manual, 1-5 Hr"		"Ramp Time 5 - 60 min"	"Ramp Time 5 - 60 min"	"Ramp Time 5 - 60 min"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rise Time 20 - 2000 mS"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"T High 1 - 60 Sec"
					"Insp. Slope 1 - 6"	"I:E 4:1 to 1:9"	"I:E 4:1 to 1:9"	"I:E 4:1 to 1:9"		"I:E 4:1 to 1:9"	"I:E 4:1 to 1:9"	"I:E 4:1 to 1:9"	"T Low 1 - 60 Sec"
					"Exp. Slope 1 - 6"	"Ramp Time 5 - 60 min"	"Ramp Time 5 - 60 min"	"Rise Time 20 - 2000 mS"		"T Plat 0 - 2000 mS"	"Rise Time 20 - 2000 mS"	"Rise Time 20 - 2000 mS"	"Rise Time 20 - 2000 mS"
						"Insp. Slope 1 - 6"	"Insp. Slope 1 - 6"						
						"Exp. Slope 1 - 6"	"Exp. Slope 1 - 6"						
Interactive Settings			"Intelligent Ramp On/Off"	"Intelligent Ramp On/Off"	"Triggering 6 steps"	"Triggering 6 steps"	"Triggering 6 steps"	"P Trigger 1 - 20 cmH_2O"	"P Trigger 1 - 20 cmH_2O"	"P Trigger 1 - 20 cmH_2O"			
					"Cycling 6 steps"	"Cycling 6 steps"	"Cycling 6 steps"	"Flow trigger 1 - 30 LPM"	"Flow trigger 1 - 30 LPM"	"Flow trigger 1 - 30 LPM"			
					"Intelligent Ramp On/Off"	"Intelligent Ramp On/Off"	"Intelligent Ramp On/Off"		"Exp. Sensitivity 10 - 90%"		"Exp. Sensitivity 10 - 90%"	"Exp. Sensitivity 10 - 90%"	"Exp. Sensitivity 10 - 90%"
Apena Settings					"Rate 10"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"	"Rate 4 - 60 bpm"			
					"Backup I:E 1:2"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"	"Backup I:E 4:1 to 1:9"
					"Apnea Time 10 - 60 Sec"	"Apnea Time 10 - 60 Sec"	"Apnea Time 10 - 60 Sec"	"Apnea Time 10 - 60 Sec"	"Apnea Time 10 - 60 Sec"	"Apnea Time 10 - 60 Sec"			
Additional Features	"Nebulizer Output, Optional SPO_2 Monitor"		"Nebulizer Output Proximal A.W Pressure Optional SPO_2 Monitor"					"Nebulizer Output Proximal A.W Pressure Optional SPO_2 Monitor"		"Nebulizer Output Proximal A.W Pressure Expiratory valve control Optional SPO_2 Monitor"			
Monitored Parameters	Flow, FIO_2		AW. Pressure, FiO_2	AW. Pressure, FiO_2	RR, Ti, Te, I:E, I:T, VT, MV, FiO_2, Fpeak, FLeak	RR, Ti, Te, I:E, I:T, VT, MV, FiO_2, Fpeak, FLeak	RR, Ti, Te, I:E, I:T, VT, MV, FiO_2, Fpeak, FLeak	RR, Ti, Te, I:E, I:T, VT, MV, PIP, FiO_2, Fpeak, FLeak	RR, Ti, Te, I:E, I:T, VT, MV, PIP, FiO_2, Fpeak, FLeak	RR, Ti, Te, I:E, I:T, VT, MV, PIP, FiO_2, Fpeak, FLeak			
Alarms	Disconnection, Obstruction, O_2 Supply, High Pressure, Low FIO_2		"Disconnection, Obstruction, O_2 Supply Low/High AW Pressure Apnea / Hypopnea Low/High FIO_2 Low/High VT Low/High MV"					"Disconnection, Obstruction, O_2 Supply Low/High AW Pressure Apnea Low/High FIO_2 Low/High VT Target Volume Not achieved Low/High MV"		"Disconnection, Obstruction, O_2 Supply Low/High AW Pressure Apnea Low/High FIO_2 Low/High VT Low/High MV"			