vyaire™
MEDICAL

Introducing the bellavista™ 1000

A new generation of ventilation that supports you across care settings.

Technical specifications

Area of application	Intensive Care Unit (ICU) Intermediate Care (IMC) Emergency Room (ER) Intra-hospital transfer
Patient Types	Adult, Pediatric ≥ 6 kg
Technology	High performance turbine ventilator
ATC	Automatic Tube Compensation
Modes of Ventilation	Description
Adaptive Mode	
AVM	Adaptive Ventilation Mode
Pressure controlled	
P-A/C	Pressure Assist Control Ventilation
PC-SIMV	Pressure Controlled - Synchronized Intermittent Mandatory Ventilation
beLevel	Biphasic Ventilation
APRV	Airway Pressure Release Ventilation
CPAP	Continuous Positive Airway Pressure
PSV	Pressure Support Ventilation
Volume controlled	
V-A/C	Volume Assist Control Ventilation
VC-SIMV	Volume Controlled - Synchronized Intermittent Mandatory Ventilation
Advanced Features	
AVM	Adaptive ventilation mode for faster weaning and adaptation to the patient.
HFOT	High Flow Oxygen Therapy for adults and pediatric.
Lung Recruitment Tool	The bellavista Lung Recruitment Tool is an automatic maneuver that determines recruitability and subsequent recruitment of the lung in an in a reliable, reproducible and easy way. You can save and export up to 50 maneuver screenshots.

General Settings	Adult	Pediatric
P_{insp}	5 - 60 cmH_2O	5-60 cmH_2O
$P_{Support}$	0-60 cmH_2O	0-60 cmH_2O
CPAP	4-30 cmH_2O	4-30 cmH_2O
PEEP	0-50 cmH_2O	0-50 cmH_2O
Pressure trigger	0.1-15 cmH_2O	0.1-15 cmH_2O
Flow trigger	0.1-20 L/min	0.1-20 L/min
Expiration trigger	5-90%, auto.sync	5-90%, auto.sync
Oxygen	21-100%	21-100%
Rate	5-50 breaths/min	5-100 breaths/min
$Rate_{Backup}$	5-50 breaths/min	5 - 100 breaths / min
Rise time	0-2000 ms, auto.rise	0-2000 ms, auto.rise
Plateau	0-70% of T_{Cycl}	0-70% of TCycl
T_{Insp}, I-time	0.1-10 s	0.1 - 10 s
$T_{Insp\,Max}$, I-time $_{Max}$	0.3-3 s	0.3-3 s
T_{High}	0.1-59.8 s	0.1-59.8 s
T_{Low}	0.2 - 10 s	0.2-10 s
Vt_{Insp}	250-2500 mL	40 - 500 mL

Monitoring Parameters	Description
P_{Peak}	Peak pressure during inspiration
P_{Mean}	Mean pressure during the entire res- piratory cycle
$P_{Plateau}$	Plateau pressure (only available if plateau is >0)
P_{insp}	Applied inspiratory pressure (relative above PEEP)
PEEP	Positive end-expiratory pressure
Rate	Respiratory rate
T_{Insp}	Inspiration time
T_{Exp}	Duration of expiration
Vt_{Insp}	Inspiratory tidal volume
Vt_{Exp}	Expiratory tidal volume
$Vt_{Insp/kg}$, $Vt_{Exp/kg}$	Tidal volume per kg body weight
MV_{Exp}	Expiratory minute volume
MV_{Insp}	Inspiratory minute volume
$MV_{Insp/kg}$, $MV_{Exp/kg}$	Minute volume per kg body weight

Technical specifications

Monitoring Parameters	Description
%Spont	Percentage of spontaneous breaths per minute
$Flow_{Exp\ Peak}$	Expiratory peak flow
$Flow_{Insp\ Peak}$	Peak inspiratory flow
I:E	Ratio of inspiration time to expiration time
Leak %	Leak in % of the volume delivered to the patient
Leak flow	Mean leak flow/min
Expert Monitoring	
$Rate_{Spont}$	Respiratory rate of spontaneous breaths
% Spont 1h	Percentage of spontaneous breaths over the last hour
% Spont 8h	Percentage of spontaneous breaths over the last 8 hours
$MV_{Insp\ Spont}$	Inspiratory minute volume of sponta- neous breaths
$MV_{Exp\ Spont}$	Expiratory minute volume of spontaneous press
RSBI	Rapid Shallow Breathing Index (Tobin Index)
Expert Ventilation	
$Auto_{PEEP}$	Pressure above PEEP measured at the end of the HoldExp maneuver.
NIF	Negative Inspiration Force. Minimal pressure below PEEP during a HoldExp maneuver.
$P_{0.1}$	Occlusion pressure 100 ms after trigger.
AVM	
$Rate_{Target}$	Mandatory target rate of AVM
MV_{Target}	Target minute volume in AVM
$T_{Insp\ Target}$	Inspiratory time of mandatory AVM breaths

Lung Recruitment Tool	
$C_{Cursor\ Infl}$, $C_{Cursor\ Defl}$	Compliance between the manually set cursor lines.
dV_{Max}	Maximum volume hysteresis in the lung recruitment and assessment maneuver
$P_{dV\ Max}$	Airway pressure t the maximum vol- ume hysteresis in a lung recruitment and assessment maneuver
V_{Insp}	Maximum tidal volume during the lung recruitment and assessment maneuver
V_{PEEP}	Volume gain at the end of the lung recruitment and assessment maneuver
$V_{Recruit}$	Volume gain through recruitment during $T_{Recruit}$
Lung Mechanics	
RC_{Exp}	Expiratory time constant
C_{20}/C_{Dyn}	A measure for potential overdistension of the lung
C_{Dyn}	Dynamic compliance
$C_{Stat/kg}$, $C_{Dyn/kg}$	Compliance per kg of set ideal body weight
Curves	Pressure airway
	Flow
	Volume
Loops	P_{aw}/Volume
	Paw/Flow
	Flow/Volume
	Reference Loops
	Loop overlay
Trending	Parameter Trending 1, 12, 24 H and 7 Day

Technical specifications

Maneuvers	Manual Breath
	Sigh
	Inspiratory Hold
	Expiratory Hold
	NIF (Negative Inspiratory Force)
	$P_{0.1}$ (Occlusion Pressure)
	AutoPEEP
	Lung Recruitment Tool
	Nebulizer
	O_2 Suction
Alarms	VT_{Exp} (Higt / Low)
	MV_{Exp} (Higt / Low)
	P_{Peak} (Higt / Low)
	Rate (Higt / Low)
	FiO_2 (Higt / Low)
	Apnea time
	Autoset
Units	
Pressure monitoring	mbar, cmH_2O, hPa
Pressure input	bar, kPa, psi
CO_2	%, mmHg, kPa
Height	cm, ft, inch

Interfaces	RS232
	USB
	Nurse Call
Screen	13.3″ Color Full HD Touchscreen, TFT
Touchscreen	Capacitive, glass touchscreen
Battery time	minimum 240 min. (internal)
Air inlet	Built-in turbine
Acoustic power level	45.4 dBA (Single Limb), 50.8 dBA (Dual Limb)
Power input AC	100–240 VAC ± 20% / 50–60 Hz
Power input DC	24 VDC (20–29 VDC) / 3.5–6 A
Power consumption	80–200 VA
Classification	Class IIb, EU-Guideline 93 / 42 / EWG
Certificates	CB Certificate (by CSA) mit fulfilment of following norms

- IEC 60601-1:2005 / AMD1:2012
- IEC 60601-1-6:2010 / AMD1:2013
- IEC 60601-1-8:2006 / AMD1:2012
- ISO 80601-2-12:2011
- ISO 80601-2-55:2011
- ISO 80601-2-61:2011
- including National Deviations for CA, KR and US

IEC 60601-1-2:2007
IEC 60601-1-2:2014
Including national deviations for EU, CA and US

Declaration	bellavista is certified according to a certified quality manage- ment system according to EN ISO 13485 and quality assurance system according to EU Directive 93 / 42 / EEC Annex II, excluding section (4)

GLOBAL HEADQUARTERS

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