GE Healthcare

9100c

Familiar, reliable, affordable

Trust points

- Designed and manufactured by GE – with over 100 years experience in anesthesia and quality leadership
- The classic 'Datex-Ohmeda clinical experience' including ventilator controls and clinical touch points
- Performance and reliability from a global anesthesia partner
- Flexible configurations to suit your needs

AVE-2 ventilator engine

- Maximum versatility for wide patient range
- Ventilation Modes:
  Volume Control
  Pressure Control (optional)
- Electronic PEEP
- Automatic fresh gas flow compensation (WYSIWYG)
- Direct access to ventilator parameter settings
- Direct access to alarm limit settings
- Smart alarm notification during alarm situations
- Pressure and volume waveforms on a breath-by-breath basis
- Inspired oxygen monitoring
- Standby-mode

Advanced Breathing Circuit (ABC)

- Easy to clean, fully autoclavable, latex-free
- No tools required
- Integrated design - fewer parts and connections reduces potential for leaks and misconnects
- One step bag/vent switch turns ventilator on/off
- Optional EZchange (CO_2 bypass) with electronic detection and notification
- Optional Passive and Active AGSS

Physical Specifications

Dimensions	Height: 145 cm /57.1 in Width: 95 cm/37.4 in Depth: 70 cm/27.6 in Weight: approximately 136 kg/300 lbs
Top shelf	Weight limit: 25 kg/55 lbs Width: 66 cm/26 in Depth: 36 cm/14 in
Work surface	Height: 83 cm/33 in Width: 53 cm/21 in Depth: 40 cm/16 in
DIN rail	Side of machine: 115 cm/45 in
Drawers (internal dimensions)	Height: 23 cm/ 10.2 in Width: 33 cm/ 13.0 in Depth: 27 cm/ 10.6 in
Casters	Diameter: 12.5 cm/5 in Brakes: Individual locking
Ventilator screen	Display size 19.1 cm/7.5 in (diagonal)

Ventilator Operating Specifications

Ventilation operating modes	VCV, PCV
Ventilator parameter ranges	
Tidal volume range:	30 to 1500 mL (Volume Control mode)
Incremental settings:	30 to 100 mL (increments of 5 mL) 100 to 300 mL (increments of 10 mL) 300 to 1000 mL (increments of 25 mL) 1000 to 1500 mL (increments of 50 mL)
Minute volume range:	0 to 60 L/min
Pressure ($P_{Inspired}$) range:	5 to 50 cm H_2O (increments of 1 cm H_2O)
Pressure (P_{max}) range:	10 to 99 cm H_2O (increments of 1 cm H_2O)
Rate:	4 to 99 breaths per minute (increments of 1 breath per minute)
Inspiratory/expiratory ratio:	2:1 to 1:8 (increments of 0.5)
Positive End Expiratory Pressure (PEEP)	
Type:	Integrated, electronically controlled
Range:	OFF, 4 to 25 cm H_2O (increments of 1 cm H_2O)
Ventilator performance	
Pressure range at inlet:	280 kPa to 600 kPa/ 41 psig to 87 psig
Peak gas flow:	120 L/min + fresh gas flow
Flow valve range:	0 to 120 L/min Fresh gas flow compensation
Ventilator monitoring	
Expiratory minute volume range:	0 to 60L/min (increments of 0.1L/min)
Expiratory tidal volume range:	0 to 2000 mL (increments of 1 mL)
O2%:	0 to 100% (increments of 1%)
Peak pressure: –	0 to 120 cm H_2O (increments of 1 cm H_2O)
Mean pressure: –	20 to 120 cm H_2O (increments of 1 cm H_2O)
PEEP pressure:	0 to 120 cm H_2O (increments of 1 cm H_2O)
Pressure waveforms sweep speed:	0 to 20 seconds

Ventilator accuracy

Delivery/monitoring accuracy	
Volume delivery:	> 100 mL = better than 15% < 100 mL = better than 30 mL < 50 mL = better than 15 mL
Pressure delivery:	±5% or ±2 cm H_2O
PEEP delivery:	±5% or ±2 cm H_2O
Volume monitoring:	> 100 mL = better than 15% < 100 mL = better than 30 mL < 50 mL = better than 15 mL
Pressure monitoring:	±5% or ±2 cm H_2O
Alarm settings	
Tidal volume (TV_{exp}):	Low: 0 to 800 mL (increments of 10 mL) High: 100 to 1800 mL (increments of 10 mL)
Minute volume (M_{vexp}):	Low: 0.1 to 15 L/min (increments of 0.1 L/min) High: 3 to 40 L/min (increments of 1 L/min)
Inspired oxygen (FiO_2):	Low: 20 to 70% (increments of 1%) High: 40 to 100% (increments of 1%)
Apnea alarm:	Mechanical ventilation OFF: No breaths > 20 mL in last 15 seconds
Low airway pressure:	1 to 20 cm H_2O (increments of 1 cm H_2O)
High pressure:	10 to 99 cm H_2O (increments of 1 cm H_2O)
Sustained airway pressure:	Paw > PEEP + 10 cm H_2O for 15+1 seconds
Subatmospheric pressure:	Paw < -10 cm H_2O
Alarm silence	Mute duration: 110 seconds

Ventilator components

Flow transducer	
Type:	Variable orifice flow sensor
Dimensions:	22 mm OD and 15 mm ID/22 mm ID
Location:	Y-piece
Oxygen Sensor	
Type:	Galvanic fuel cell
Life Cycle:	Approximately 12 months (Dependent on usage)

Anesthetic agent delivery

Delivery	
Vaporizers:	Tec 7, V5
Number of positions:	2
Mounting:	Tool-free installation Selectatec® manifold interlocks and isolates vaporizers

V5 Vaporizer

Tec 7 Vaporizer

Electrical specifications

Current leakage

100/120 V:	< 500µA
220/240 V:	< 500µA

Power and battery backup

Power input:	100-120 Vac, 50/60 Hz 220-240 Vac, 50/60 Hz
Backup power:	Demonstrated battery backup time under typical operating conditions is 90 minutes when fully charged
Battery type:	Internal rechargeable sealed lead acid
Power cord:	Length: 5 m/16.4 ft Rating: 90 to 240 Vac Current capacity: 10 A for 220-240 Vac and 15 A for 100-120 Vac

Communication port

USB port:	USB 2.0 for upgrade

Inlet/outlet modules

Supply voltage	100-120 or 220-240 Vac +/-10% at 50 or 60 Hz	
Inlet circuit breakers	100-120 Vac 15 A	220-240 Vac 8 A
Outlet circuit breakers	100-120 Vac (2) 2 A (1) 3 A	220-240 Vac (2) 1 A (1) 2 A

System leakage current limit - do not exceed:

IEC rated systems (Not U.S.A. and Canada): less than 500µamps for the system and all systems connected to electrical outlets.

Note: Products connected to electrical outlets may increase the leakage current above these limits.

Resistance to ground: less than 0.2 Ω

Pneumatic specifications

Auxiliary common gas outlet

Connector:	ISO 22 mm OD and 15 mm ID

Gas supply

Pipeline input range:	280 kPa to 600 kPa/41 psi to 87 psi
Pipeline connections:	DISS - Male; DISS-Female; S90-116 (French Air Liquide); BSPP 3/8 (Scandinavian) or NIST (ISO 5359). All fittings available for O_2, Air, and N_2O
Cylinder input:	Pin indexed in accordance with CGA-V-1; contains input filter and check valve

Note: Maximum 3 cylinders; all 3 inboard mounted.

Primary regulator diaphragm minimum burst pressure:

2758 kPa/400 psig

Primary regulator nominal output:

Pin indexed: The primary regulator is set to pressure less than 345 kPa (50 psi).

O_2 controls

Method:	Proportionate decrease of N_2O with reduction in O_2 Pressure
Supply failure alarm:	Range: 230 kPa to 250 kPa/ 33 psig to 36 psig Sounds at maximum volume every 10 seconds
O_2 flush: Range:	25 to 75 L/min

Flowmeters

O_2 ranges:	0.1 to 1.0 L/min and 1.0 to 10.0 L/min
N_2O ranges:	0.1 to 1.0 L/min and 1.0 to 10.0 L/min
Air range:	0.1 to 10.0 L/min

Hypoxic guard system

Type:	Mechanical gear™
Range:	Provides a nominal minimum 25% concentration of oxygen in O_2/N_2O mixture

Environmental specifications

System operation

Temperature:	10° to 40°C/50° to 104°F
Humidity:	15 to 95% relative humidity, non-condensing
Altitude: –	440 to 3565 m/500 to 800 mmHg

System storage

Temperature: –	-25° to 65°C/ -13° to 149°F
Humidity:	10 to 95% relative humidity, non-condensing
Altitude: –	440 to 5860 m/375 to 800 mmHg
Oxygen cell storage: –	-15° to 50°C/5° to 122°F 10 to 95% relative humidity 500 to 800 mmHg

Electromagnetic compatibility

Immunity:	Complies with all requirements of EN/IEC
Emissions:	CISPR 11 group I class B
Approvals:	EN/IEC 60601-1-2

Breathing circuit specifications

Operational modes

Breathing circuit is circle mode only

Carbon dioxide absorbent canister

Absorbent capacity:	950 mL

Integrated expiratory limb water reservoír

Ports and connectors

Exhalation:	22 mm OD ISO 15 mm ID taper
Inhalation:	22 mm OD ISO 15 mm ID taper
Bag port:	22 mm OD

Pressure gauge

Scale range:	-2 to 10 kPa/–20 to 100 cm H20

Bag-to-Ventilator switch

Type:	Bi-stable
Control:	Controls ventilator and direction of breathing gas within the circuit

Integrated Adjustable Pressure Limiting (APL) valve

Range:	0.5 to 70 cm H_2O
Tactile knob indication at:	30 cm H_2O and above
Adjustment range of rotation:	0 to 30 cm H_2O (0 to 230°) 30 to 70 cm H_2O (230 to 330°)

Materials

All materials in contact with exhaled patient gases are autoclavable, except disposable flow sensors and O_2 cell.

(Autoclavable flow sensors optional).

All materials in contact with patient gas are free of natural rubber latex.

Breathing circuit parameters

Compliance:	Bag mode: 1.82 mL/cm H_2O
Mechanical mode:	Automatically compensates for compression losses within the absorber and bellows assembly
Circuit volume:	2.6 L Vent Mode (including absorber) 2.1 L Bag Mode

Breathing system resistance in bag mode*:

L/min	kPa	cmH_2O
5	0.03	0.3
30	0.17	1.7
60	0.56	5.6

Ezchange Canister system, absorber mode

5	0.03	0.3
30	0.17	1.7
60	0.56	5.6

EZchange Canister system, canister removed

5	0.03	0.3
30	0.16	1.6
60	0.56	5.6

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality and efficiency around the world. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

*Values include patient circuit tubing and Y-piece 0.15 kPa (0.20 psi) expiratory resistance at 1 L/s. Patient circuit tubing and breathing system configurations may affect resistance.

Anesthetic gas scavenging

All scavenging

Positive pressure relief:	10 cmH_2O

Passive scavenging

Negative pressure relief:	0.3 cmH_2O
Outlet connector:	30 mm male taper ISO

Active scavenging

Disposal system type	Outlet connector*	Hospital waste gas disposal system rerquirements
Adjustable flow, high vacuum	DISS EVAC	305mmHg(12 inHg) minimum at 36 l/min flow
High flow, low vacuum	BSI 30 mm threaded(BS6834)	50 to 80 l/min flow
Low flow, high vacuum	DISS EVAC	305mmHg(12 inHg) minimum at 30 l/min flow
Low flow, low vacuum	12.7 mm barb	36 l/min flow
Low flow, low vacuum	25 mm barb	36 l/min flow
Low flow, low vacuum	30 mm ISO taper male	36 l/min flow

*Other market-specific connectors may be available.
Particle filter at the outlet has a pore size of 225 microns. All flow data uses a new filter.

EC REP

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GE imagination at work

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