

Specification: NV 8

The image features a blue background with a large, stylized 'COMEN' logo in the center. The logo is rendered in a 3D, metallic style with a blue-to-white gradient. Above the main logo, there is a decorative arrangement of smaller 'COMEN' text elements in various sizes and orientations, some appearing to be part of a globe or a circular pattern. Below the main logo, the tagline 'COMEN Share with the world' is written in a clean, white sans-serif font.

COMEN

COMEN Share with the world

SHENZHEN COMEN MEDICAL INSTRUMENTS CO.,LTD

No.2 of FIYATA Timepiece Building, Nanhuan Avenue, Gongming sub-district, Guangming New District, Shenzhen, P.R. China

Tel: +86-755-26408879

Fax: +86-755-26431232

Email: info@szcomen.com

Web: www.comen.com

Neonatal Ventilator

NV 8

Technical Specification

Physical Characteristics

Size	1300mm*440mm*520mm
Weight	26kg
Screen Size:	8" TFT touch screen
Resolution	800 × 600
Caster wheel	4 wheels 4" brakes
Brightness:	Adjustable

Operation Environment

Working Temp	5~40°C
Humidity	10~95%
Power Supply	100-240V~, 50/60Hz±1Hz
Battery Type	Rechargeable Lithium-ion battery
Battery Capacity	2600mAh
Battery Recharging Time	10 hours for charging;
Battery backup	240min (fully charged new battery, ambient temperature of 25°C)
Trace	Waveforms: Pressure-time; Flow histogram: Gas flow

Interfacing:

USB interface
DC power interface(12~24V)
RJ45
RS232
AC power interface
Equal-potential grounding terminal

Data storage

Log:	2000 groups
Trend Graph:	120 hours
Trend Table:	120 hours



Alarm:	User-adjustable High and Low 3-level Limits; Prioritized audible and visual alarm
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Abdominal respiratory monitoring

Monitoring	Available
respiratory rate:	
Trigger sensitivity:	Adjustable
Triggering	
synchronous	Available
ventilation:	
Apnea awaking:	Available

Features

Air oxygen mixer	
type:	Built-in electronic air oxygen mixer
Patients:	Designed for neonatal
Mode:	Mechanical, Standby
Direct set pressure:	Available
Leakage	
compensation:	Available
Built-in oxygen	
sensor monitoring:	Available
Oxygen	
concentration test:	Available
Leakage test:	Available
Power on self-test:	Available
Self-test information	
graphic indication:	Available

Lock screen:	Available
Built-in water cup:	Available
Oxygen concentration online calibration	Optional
Gas connector(input):	Different kinds of gas input connectors are different; Check valve
Gas input pipe	280~600kPa

Ventilator Specification

Ventilation Modes

NCPAP	Nasal continuous positive airway pressure
NIPPV	Nasal intermittent positive pressure ventilation
SNIPPV	Synchronized nasal intermittent positive pressure ventilation
HFNC	Heated humidified high-flow nasal cannula
Driven mode:	Continuous constant flow
Driven gas:	Electronic selective air or O ₂

Ventilator parameter ranges

Airway pressure:	1cmH ₂ O~13cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of set value, whichever is the greater.
Apnea awaking:	3cmH ₂ O~20cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of set value, whichever is the greater.
Apnea interval:	OFF, 10s~30s Accuracy: ± 1 s
PEEP:	1cmH ₂ O~13cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of set value, whichever is the greater.
Inspiratory pressure:	3cmH ₂ O~20cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of set value, whichever is the greater.
Respiratory rate:	1bpm~120bpm Accuracy: ± 0.5 bpm or $\pm 1\%$ of set value, whichever is the greater.
Backup frequency:	1bpm~120bpm Accuracy: ± 0.5 bpm or $\pm 1\%$ of set value, whichever is the greater.
Inspiratory time:	0.1s~15s Accuracy: ± 0.005 s
Flow rate:	0.5L/min~20L/min; 3L/min~25L/min (Manual ventilation)

Manual ventilation:	3cmH ₂ O~15cmH ₂ O 3L/min~25L/min (Manual ventilation) Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of set value, whichever is the greater.
Oxygen concentration:	21%~100%; Accuracy: $\pm 3\%$ of set value
Flush oxygen concentration:	23%~100%; Accuracy: $\pm 3\%$ of set value
Duration of manual ventilation:	1s~15s
Duration of flush oxygen ventilation time:	30s~120s

Ventilator Monitoring

Monitoring parameter:	Airway pressure, apnea awaking, apnea interval, PEEP, inspiratory pressure, respiratory rate, backup frequency, inspiratory time, flow rate, manual ventilation, oxygen concentration, flush oxygen concentration, duration of manual ventilation, duration of flush oxygen ventilation time
Oxygen concentration:	0%~100%; Accuracy: $\pm 2\%$ of reading value
Airway pressure	-10cmH ₂ O~100cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of reading value, whichever is the greater.
PEEP	-10cmH ₂ O~100cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of reading value, whichever is the greater.
Ppeak (Airway pressure)	-10cmH ₂ O~100cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of reading value, whichever is the greater.
Pmean (Mean pressure)	-10cmH ₂ O~100cmH ₂ O Accuracy: ± 0.5 cmH ₂ O or $\pm 5\%$ of reading value, whichever is the greater.
Freq (Respiratory rate)	0~200 bpm



	Accuracy: ± 1 bpm or $\pm 5\%$ of reading value, whichever is the greater.
Flow rate	0.5~20L/min Accuracy: ± 0.5 L/min or $\pm 5\%$ of reading value, whichever is the greater.
Inspiratory time	0.4s~30s Accuracy: Unspecified
I: E (Inspiratory- expiratory ratio)	1:1~1:10 Accuracy: Unspecified
Duration of flush oxygen ventilation time:	30s~120s (step: 30s)
Manual Ventilation	
Under NCPAP Mode	Pressure adjustable
Under HFNC Mode	Flow adjustable
Under NIPPV, SNIPPV Mode	Maintain inspiratory pressure
Duration Setting range	1s~15s (step: 1s)
Ventilator accuracy	
CPAP:	± 0.2 cmH ₂ O or $\pm 2\%$ of the set value, whichever is greater.
Pinsp:	± 0.2 cmH ₂ O or $\pm 2\%$ of the set value, whichever is greater.
PEEP:	± 0.2 cmH ₂ O or $\pm 2\%$ of the set value, whichever is greater.
Manual ventilation:	± 0.2 cmH ₂ O or $\pm 2\%$ of the set value, whichever is greater.
Papnea:	± 0.2 cmH ₂ O or $\pm 2\%$ of the set value, whichever is greater.
Oxygen concentration	$\pm 3\%$ of the set value
Flush Oxygen	$\pm 3\%$ of the set value
Respiratory rate	± 0.5 bpm or $\pm 1\%$ of the set value
Backup frequency	± 0.5 bpm or $\pm 1\%$ of the set value
Inspiratory time	± 0.005 s of the set value
Flow rate,	Flow: ± 0.2 L/min or $\pm 5\%$ of the set value, whichever is greater.

Apnea interval:	± 0.1 s
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Alarm Settings

Pressure	High: 2.5~20cmH ₂ O Low: 0.5~18cmH ₂ O
Oxygen concentration	High: 20~105% Low: 18~103%
Alarm mute	120s
Alarm delay	1~10s (step: 1s)

Oxygen Sensor

Type	Electronic flow meter
Range	0~100%
Accuracy	$\pm 2\%$
100% oxygen signal deviation	100 $\pm 1\%$
Resolution	1hPa O ₂
Expected service life	1.5x10 ⁶ % measurement hours (at 20°C); 0.8x10 ⁶ % measurement hours (at 40°C)

Response time (21% air - 100% oxygen)	<15s
Linearity	Linear 0-100% O ₂
Working temperature	-20°C~50°C
Temperature compensation	0-40°C ($\pm 2\%$ fluctuation)
Atmospheric pressure	50~200KPa
Relative humidity 100% oxygen	0~99%

concentration output drift	Typical value beyond one year: <5%
Material	White ABS
Validity	13 months (or shorter if any of our requirements is violated) as from the package removing date

Gas Supply

Pipeline gasses	O ₂ , Air
Pipeline gas connection	NIST
Pressure range at inlet	280~600 kPa



Auxiliary gas supply

Flush oxygen, manual

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