# 9100c *NXT*

## The anesthesia workstation that gives you peace of mind

**Precise**
Enables you to effectively deliver anesthesia and foster seamless recovery

**Versatile**
Scalable across a wide range of patient groups and surgical procedures

**Dependable**
Based on GE/Datex Ohmeda's legacy of 100+ years of innovation and trust


DOC 1973444

1. Flowhead assembly
2. Pipeline & cylinder pressure gauge
3. Task light
4. Breathing circuit with $CO_2$ bypass
5. System switch
6. ACGO port and switch
7. PAW gauge
8. 7.5in(diagonal) display for 2 waveforms
9. USB for SW update + RS 232 (15 pin)
10. Selectatec manifold & vaporizers
11. Ergonomic handle
12. Oxygen flush
13. Wheel caster & brake
14. Storage space
15. Auxiliary power and switch
16. Pipeline connections
17. Cylinder yoke option
18. Hose hooks
19. Scavenging system
20. Flip-up shelf

### Physical specifications

**Dimensions:**
Height: 145 cm/ 57.1 in
Width: 87 cm/ 34.2 in
Depth: 67.4 cm/ 26.5 in
Weight: approximately 140 kg/ 308 lbs

**Top shelf:**
Weight limit: 25Kg/55 lbs
Width: 60.0cm/23.2 in
Depth: 35.2cm/13.9 in

**Work surface:**
Height from floor: 83.9cm/33 in
Width: 53.5 cm/ 21 in
Depth: 46cm/ 18.1 in

**Folding side shelf (optional):**
Weight: limit: 12kg/25lbs
Width: 27.7cm/10.91in
Depth: 36.6cm/14.41in

**DIN rail:**
Side of machine (rail height) 116.35cm/45.8 in

**Drawers (internal dimensions):**
Height: 35.9cm/14.1 in
Width: 43.1cm/16.9 in
Depth: 11.2cm/4.4 in

**Casters:**
Diameter: 12.5 cm/5 in
Brakes: Individual locking

### Ventilator operating specifications

**Ventilation operating modes:**
VCV, PCV, SIMV, PSVPro™ with apnea backup

**Ventilator parameter ranges**

**Tidal volume range:**
20 to 1,500 mL (Volume Control mode)

**Incremental settings:**
20 to 100 mL (increments of 5 mL)
100 to 300 mL (increments of 10 mL)
300 to 1,000 mL (increments of 25 mL)
1000 to 1,500 mL (increments of 50 mL)

**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 bpm (increments of 1 bpm)
2 to 60 bpm (increments of 1 bpm)
(SIMV, PSVPro™)

**Inspiratory/expiratory ratio:**
2:1 to 1:8

**Inspiratory pause:**
Off, 5% to 60% with increments of 5%

**Trigger window:**
5% to 80% or 4 seconds, whichever is less, increments of 5%

**Flow trigger:**
0.2 to 10 L/min with increments of
0.2 L/min for volumes < 1 L/min; and
0.5 L/min for volumes ≥ 1 L/min.

### 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 SLPM + fresh gas flow

**Flow valve range:**
0 to 102 SLPM
Fresh gas flow compensation

### Ventilator monitoring

**Loops**: P-V, F-V loops
**Waveforms** - Pressure, Flow

**Expiratory minute volume range:**
0 to 60L/min (increments of 0.1L/min)

**Expiratory tidal volume range:**
0 to 2,000 mL (increments of 1 mL)

**$O_2$%:**
10 to 100% (increments of 1%)

**Peak pressure:**
0 to 120 cm $H_2O$ (increments of 1 cm $H_2O$)

**Mean pressure:**
0 to 120 cm $H_2O$ (increments of 1 cm $H_2O$)

**PEEP pressure:**
0 to 120 cm H2O (increments of 1 cm H2O)

**Waveforms sweep**
0 to 20 seconds

## Ventilator accuracy

### Delivery/monitoring accuracy

**Volume delivery[1]:**
<=300ml tidal volume - +/-12ml or +/-12% of setting, whichever is greater
>300ml tidal volume - +/-10% of setting

**Pressure delivery:**
±10% or ±3 cm $H_2O$ (whichever is greater)

**PEEP delivery:**
±5% or ±1.5 cm $H_2O$ (whichever is greater)

**Volume monitoring[1]:**
<300ml tidal volume - +/-12ml or +/-12% of reading, whichever is greater
>=300ml tidal volume - +/-10% of reading

**Pressure monitoring:**
±5% or ±2.4 cm $H_2O$ (whichever is greater)

### Alarm Setting

**Tidal volume ($TV_{exp}$):**
Low: 5 to 800 mL (<10mL: increments of 5mL; >10mL: increments of 10mL)
High: 100 to 1800 mL (increments of 10 mL)

**Minute volume ($MV_{exp}$):**
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:**
No breaths >5mL in Apnea delay time set.
Apnea delay time range: 10 to 30 seconds (increment in steps of 1 second)

**Low airway pressure:**
1 to 20 cm $H_2O$ (increments of 1 cm $H_2O$)

**$P_{peak}$ high:**
10 to 99 cm $H_2O$ (increments of 1 cm $H_2O$)

**Sustained airway pressure:**
PAW> (PEEP Setting + 10cm $H_2O$) for 15 seconds

**Sub atmospheric pressure:**
Paw < -10 cm $H_2O$

### Alarm Pause

**Mute duration:**
110 seconds

## Ventilator components

### Flow sensor

**Type:**
Variable orifice flow sensor

**Dimensions:**
22 mm OD and 15 mm ID

### Oxygen Sensor

**Type:**
Galvanic fuel cell

**Life Cycle:**
Approximately 12 months (Dependent on usage)

## Anaesthetic agent delivery

### Delivery

**Vaporizers:** Tec 7

**Number of positions:** 2

**Mounting:**
Tool-free installation Selectatec®
manifold interlocks and isolates vaporizers

## Electrical specifications

### Leakage current

**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
Rating: 90 to 240 Vac
Current capacity: 10 A for 220-240 Vac and
15 A for 100-120 Vac

### Communication ports

USB 2.0 for upgrade, RS-232 (15-pin)

### 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) 2A (1) 3A
220-240 Vac - (2) 1A (1) 2A

**System leakage current limit[2]- do not exceed:**
IEC rated systems (): less than 500µamps for the system and all systems connected to electrical outlets.

**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; S90- 116 (French Air Liquide); BSPP 1/4, BSPP 3/8 (Scandinavian) or NIST (ISO 5359). All fittings available for $O_2$, Air, and $N_2O$

**Cylinder input[3]:**
Pin indexed in accordance with CGA-V-1; contains input filter and check valve

**Primary regulator diaphragm minimum burst pressure:**
2,758 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 $O_2$ flow
$N_2O$ cutoff with loss of $O_2$ pressure

**Supply failure alarm:**
Range: 207kPa+/-14kPa
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
1.2 to 10.0 L/min

**$N_2O$ ranges:**
0.1 to 1.0 L/min and
1.2 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 21% 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, noncondensing

**Altitude:**
440 to 3,565 m/500 to 800 mmHg

**Oxygen cell operation:**
15° to 40°C/59° to 104°F

### System storage

**Temperature:**
-25° to 65°C/ -13° to 149°F

**Humidity:**
10 to 95% relative humidity, noncondensing

**Altitude:**
440 to 5,860 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, EN/IEC 60601-1-2, ISO 80601-2-13.

## Breathing circuit specifications

### Operational modes

Breathing Circuit (Circle Mode only), ACGO

### Carbon dioxide absorbent canister

Absorbent capacity: 1200mL

Integrated expiratory limb water reservoir

### 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 $H_2O$

### 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:** 1 to 70 cm $H_2O$

**Tactile knob indication at:**
30 cm $H_2O$ and above

**Adjustment range of rotation:**
1 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 flow sensors and $O_2$ cell.

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

### Breathing circuit parameters

**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

### Anesthetic gas scavenging

**All scavenging**
**Positive pressure relief:**
10 $cmH_2O$

**Passive scavenging**
**Negative pressure relief:**
0.3 $cmH_2O$ Outlet

**Passive outlet connector:**
30 mm male taper ISO

### Active scavenging

| Disposal system type | Outlet connector[4] | Hospital waste gas disposal system requirements |
|---|---|---|
| Adjustable flow, high vacuum | DISS EVAC | 305mmHg(12 inHg) minimum at 30 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 36 L/min flow |
| Low flow, low vacuum | 12.7 mm barb | 36 L/min flow |
| Low flow, low vacuum | 25 mm barb | 40 to 50 L/min flow |
| Low flow, low vacuum | 30 mm ISO taper male | 40 to 50 L/min flow |

1: under BTPS condition

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

3: Maximum 3 cylinders; all 3 inboard mounted.

4 : 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.

DOC 1973444