

# BC Biomedical Anesthetic Agent Analyzer

AA-2005 Anesthetic Agent Analyzer

## Features

- State-of-the-art non-dispersive infrared (NDIR) technology identifies and measures five anesthetic agent gases:  
Halothane, Enflurane, Isoflurane, Desflurane, and Sevoflurane.
- Also measures O<sub>2</sub>, CO<sub>2</sub>, and N<sub>2</sub>O
- Automatic or manual modes.
- Gas flow sampled at 100, 150 and 200 ml/min.
- Measurement accuracy is not affected by alcohol or ketones.
- Fast warm-up time ensures full accuracy within minutes.
- Auto-calibration.
- Bright, real-time display of waveforms and numerical values provided.
- Lightweight, portable design provides flexible workspace options.
- Service tool for anesthesia service application (NOT FOR CLINICAL USE)



## Overview

A powerful monitoring tool – proprietary state-of-the-art digital 5-agent gas analysis technology. Versatile, reliable, and incredibly compact. Designed for testing Anesthetic vaporizer output concentration in hospitals and outpatient surgical centers.

The system's reliable performance, ease of use, flexible design, and affordable cost make it the ideal service tool for anesthesia service applications in hospitals and surgical centers.

- Automatically identifies and quantifies five anesthetic agents.
- Detects and quantifies mixed agents.
- Compatible with color VGA displays and has large screen output capability.

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## Specifications

<b>Gas Monitoring</b>		<b>Display</b>	
Method:	Sidestream; Non-dispersive infrared (NDIR)	Main Display:	Active color TFT
Identified Gases:	Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, CO <sub>2</sub> , N <sub>2</sub> O, Oxygen	Size:	5.5" Display Area
Concentration Units:	Vol%, Torr, kPa, mmHg	Resolution:	Internal Display; 320 x 240 pixels
Flow Rates:	100 ml/min, 150 ml/min, 200 ml/min	External Video:	640 x 480 pixels
<b>Agent Detection</b>		Number of Traces:	3 maximum
Measurement Range:	Halothane: 0 to 10%	<b>Controls</b>	
	Enflurane: 0 to 10%	Keys:	7; membrane-activated
	Isoflurane: 0 to 10%	Rotary knob:	Push and rotate; 24 steps/turn
	Desflurane: 0 to 20%	<b>System Outputs</b>	
	Sevoflurane: 0 to 10%	Com Ports:	Com 1; RS 232-compatible, Serial DB-9
	CO <sub>2</sub> : 0 to 12.5%		Com 2; Serial/Analog, mini-DIN8
	N <sub>2</sub> O: 0 to 99%	Video Port:	Color VGA compatible, High Density D-Sub 15
	Oxygen: 0 to 100%	<b>Alarms</b>	
Measurement Accuracy:	Agents: ± (0.1% abs. + 4% reading)	Alarm Characteristics:	EN 475, Adjustable; with audible and visual indications.
	CO <sub>2</sub> : ± 0.2% abs. or 4% of reading	Alarm Levels:	High, Medium, Low, Informational
	N <sub>2</sub> O: ± (1.5% abs. + 4% of reading)	Alarm Modes:	Adult/Pediatric/Neonate High and low limit settings for each mode.
	Oxygen: ± 3 vol% (for 0-90%), ± 4 vol% (for 91-99%)	<b>Trends</b>	
Time to Detect Agent:	< 15 seconds @ 200ml/min	Memory:	24 hours of stored data, History available with external VGA display
Agent Detection Resolution:	0.1 Volume Percent	Display:	Tabular, Graphical
Mixed Gas Threshold:	0.2 vol. % +10% of total concentrations	<b>Power Requirements</b>	
Rise Time:	Agents: 450 msec	Voltage:	100, 120, 220, 240 VAC; 50/60 Hz
	CO <sub>2</sub> : 350 msec	Power Consumption:	40 W, typical
	N <sub>2</sub> O: 400 msec	Battery:	NiMH; Life: 1 hour, typical; Recharge time: 3 hours
	Oxygen: 600 msec	<b>Mechanical</b>	
<b>Respiration Rate</b>		Weight:	5.9 kg. (13 lbs.)
Range:	1 to 60 breaths/minute	Size:	16.5cm (H) x 27.9cm (W) x 30.5cm (D); 6.5" (H) x 11.0" (W) x 12.0" (D)
Accuracy:	± 2 breaths/minute or 2% of reading	<b>Environmental</b>	
<b>System Features</b>		Operating Temperature:	15° to 35° C; 59° to 95° F
Occlusion Clearing:	Automatic	Storage Temperature:	-5° to 50° C; 23° to 122° F
Auto Zeroing:	Occurs 30 to 60 minutes	Operating/Storage Humidity:	15% to 95%, noncondensing
	Duration: 3.0 to 7.0 seconds	Altitude:	-300m to 3000m (-1,000 to 10,000 ft.)
	Manual user calibration not required.	Type of Protection:	Class I Equipment
	Temperature stabilized optical assembly	Degree of Protection:	Type CF, Defibrillator-proof
	Auto-calibration; verification recommended every 6-months.	Protection against ingress:	Ordinary
Warm-up Time:	1 minute to first waveforms; < 20 minutes to full accuracy		