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 O2, CO2, and N2O

- 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 provides instant notification of changing patient status.

- 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

Gas Monitoring

Method:	Sidestream; Non-dispersive infrared (NDIR)
Identified Gases:	Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, CO2, N2 O, Oxygen
Concentration Units:	Vol%, Torr, kPa, mmHg
Flow Rates:	100 ml/min, 150 ml/min, 200 ml/min

Agent Detection

Measurement Range:	Halothane: 0 to 10%
	Enflurane: 0 to 10%
	Isoflurane: 0 to 10%
	Desflurane: 0 to 20%
	Sevoflurane: 0 to 10%
	CO2: 0 to 12.5%
	N2O: 0 to 99%
	Oxygen: 0 to 100%
Measurement Accuracy:	Agents: ± (0.1% abs. + 4% reading
	CO2: ± 0.2% abs. or 4% of reading
	N2O: ± (1.5% abs. + 4% of reading
	Oxygen: ± 3 vol% (for 0-90%),
	± 4 vol% (for 91-99%)
Time to Detect Agent:	< 15 seconds @ 200ml/min
Agent Detection Resolution:	0.1 Volume Percent
Mixed Gas Threshold:	0.2 vol. % +10% of total concentrations
Rise Time:	Agents: 450 msec
	CO2: 350 msec
	N2O: 400 msec
	Oxygen: 600 msec

Respiration Rate

Range:	1 to 60 breaths/minute
Accuracy:	± 2 breaths/minute or 2% of reading

System Features

Occlusion Clearing:	Automatic
Auto Zeroing:	Occurs 30 to 60 minutes
	Duration: 3.0 to 7.0 seconds
	Manual user calibration not required.
	Temperature stabilized optical assembly
	Auto-calibration; verification recommended every 6-months.
Warm-up Time:	1 minute to first waveforms;
	< 20 minutes to full accuracy

Display

Main Display:	Active color TFT
Size:	5.5" Display Area
Resolution:	Internal Display; 320 x 240 pixels
External Video;	640 x 480 pixels
Number of Traces:	3 maximum

Controls

Keys:	7; membrane-activated
Rotary knob:	Push and rotate; 24 steps/turn

System Outputs

Com Ports:	Com 1; RS 232-compatible, Serial DB-9
	Com 2; Serial/Analog, mini-DIN8
Video Port:	Color VGA compatible,
	High Density D-Sub 15

Alarms

Alarm Characteristics:	EN 475, Adjustable; with audible and visual indications.
Alarm Levels:	High, Medium, Low, Informational
Alarm Modes:	Adult/Pediatric/Neonate High and low limit settings for each mode.

Trends

Memory:	24 hours of stored data, History available with external VGA display
Display:	Tabular, Graphical

Power Requirements

Voltage:	100, 120, 220, 240 VAC; 50/60 Hz
Power Consumption:	40 W, typical
Battery:	NiMH; Life: 1 hour, typical;
	Recharge time: 3 hours

Mechanical

Weight:	5.9 kg. (13 lbs.)
Size:	16.5cm (H) x 27.9cm (W) x 30.5cm (D); 6.5" (H) x 11.0" (W) x 12.0" (D)

Environmental

Operating Temperature:	15º to 35º C; 59º to 95º F
Storage Temperature:	-5º to 50º C; 23º to 122º F
Operating/Storage Humidity:	15% to 95%, noncondensing
Altitude:	-300m to 3000m (-1,000 to 10,000 ft.)
Type of Protection:	Class I Equipment
Degree of Protection:	Type CF, Defibrillator-proof
Protection against ingress:	Ordinary