

Poet[®] IQ 8500AH Anesthetic Gas Analyzer

A powerful combination – proprietary CSI vital signs and 5-agent gas analysis technology. Versatile, reliable, and incredibly compact. Designed for anesthesia applications in hospitals and outpatient surgical centers.



8500AH analyzer as shown connected to nCompass™ 8100H vital signs monitor.

Features

- State-of-the-art non-dispersive infrared (NDIR) technology identifies and measures five anesthetic agent gases: Halothane, Enflurane, Isoflurane, Desflurane, and Sevoflurane.
- Automatic or manual modes.
- Breath-by-breath O₂, CO₂, and N₂O monitoring.
- Gas flow sampled at 100, 150 and 200 ml/min.
- Mixed agent identification.
- 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 numerical values and waveforms provides instant notification of changing patient status.
- Lightweight, portable design provides flexible workspace options.

Criticare's Poet[®] IQ anesthetic gas monitor, when paired with the nCompass™ 8100H Series patient monitor, provides a unique combination of leading edge vital signs technology and anesthesia gas monitoring in a compact, modular system.

The Poet IQ anesthetic gas monitor automatically identifies and quantifies inspired and expired O₂, CO₂, N₂O, and five anesthetic agents. The system's reliable performance, ease of use, flexible design, and affordable cost make it the ideal monitoring solution for anesthesia applications in hospitals and surgical centers.

Poet® IQ 8500AH Anesthetic Gas Analyzer

Technical Specifications

Gas Monitoring

Method:	Sidestream; Non-dispersive infrared (NDIR)
Identified Gases:	Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, O ₂ , CO ₂ , N ₂ O
Concentration Units:	Vol%, Torr, kPa, mmHg
Flow Rates:	100, 150 or 200 ml/min

Agent Detection

Measurement Range:	Halothane: 0 – 10%
	Enflurane: 0 – 10%
	Isoflurane: 0 – 10%
	Desflurane: 0 – 20%
	Sevoflurane: 0 – 10%
	CO ₂ : 0 – 12.5%
	N ₂ O: 0 – 99%
	O ₂ : 0 – 100%
Measurement Accuracy:	Agents: ±0.1% abs. + 4% of reading
	CO ₂ : ±0.2% abs. or 4% of reading
	N ₂ O: ±1.5% abs. + 4% of reading
	O ₂ : ±3 vol% (0 – 90%)
	±4 vol% (91 – 99%)

Time to Detect Agent:	< 15 seconds @ 200 ml/min
Agent Detection Resolution:	0.1 vol%
Mixed Gas Threshold:	0.2 vol% + 10% of total concentration
Rise Time:	Agents: 450 msec
	CO ₂ : 350 msec
	N ₂ O: 400 msec
	O ₂ : 600 msec

Respiration Rate

Range:	1 – 60 Br/min
Accuracy:	±2 Br/min 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 once per year
Warm-up Time:	1 minute to first waveforms; < 20 minutes to full accuracy

Alarms

Alarm Characteristics:	EN 475, Adjustable; with audible and visual indications from the patient monitor.
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 in patient monitor
Display:	Tabular, Graphical

Display

Connects to nCompass™
8100H Series patient monitors

Languages

Consult with sales or customer service for available language configurations

System Outputs

System Configuration:	Modular design with bi-directional communication, via cable, to the host monitor.
Waveform Output:	Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, CO ₂ , N ₂ O, O ₂
Output Data:	Inspired and end-tidal gas concentrations; continuous real-time gas concentrations; respiratory rate (elapsed time since last breath); agent identification (primary agent and mixed agents); system information (diagnostic status messages)

Power Requirements

Voltage:	12 VDC, typical
Power Consumption:	Receives power from host monitor 6W peak, 3W typical

Mechanical

Weight:	3.4 kg. (7.5 lbs.)
Size:	Height: 10.2 cm (4.0 in)
	Width: 35.6 cm (14.0 in)
	Depth: 27.3 cm (10.8 in)

Environmental

Operating Temperature:	15° – 35 °C (59° – 95 °F)
Storage Temperature:	-5° – 50 °C (23° – 122 °F)
Operating/Storage Humidity:	15% – 95%, noncondensing
Altitude:	-300 m – 3,000 m (-1,000 ft – 10,000 ft)

Classification

Medical Device:	Class II Equipment (IIb EU)
Electrical Protection:	Class I Equipment
Degree of Protection:	Type CF, Defibrillator-Proof
Protection against ingress:	Ordinary



Quality systems registered to ISO 13485 and CE marking per Annex II, Clause 3 of Council Directive No. 93/42/EEC concerning medical devices.