

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.

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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.