Poet IQ Anesthetic Gas Monitor

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.

Model: 8500

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.

CSI’s Poet IQ® anesthetic gas monitor, when paired with the Poet Plus® 8100 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 CO₂, N₂O, O₂, 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 Anesthetic Gas Monitor

Technical Specifications

**Gas Monitoring**

Method: Sidestream; Non-dispersive infrared (NDIR)
Identified Gases: Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, CO₂, N₂O, 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 once per year.

Warm-up Time:
- 1 minute to first waveforms;
- < 20 minutes to full accuracy

**Display**

Connects to the Poet Plus 8100 patient monitor.

**System Outputs**

System Configuration: Modular design with bi-directional communication, via cable, to the Poet Plus 8100 patient monitor.
Waveform Output: Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane, CO₂, N₂O, O₂
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)

**Alarms**

Alarm Characteristics: EN 475, Adjustable; with audible and visual indications from the patient monitor.
Alarms (cont.)
- 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

**Power Requirements**

Voltage: 10 to 28 VDC
Receives power from patient monitor.
Power Consumption:
- 9 watts warm-up, 6 watts operational

**Mechanical**

Weight: 2.95 kg. (6.5 lbs.)
Size: 9.6cm (H) x 26.4cm (W) x 20.8cm (D); 3.8” (H) x 10.4” (W) x 8.2” (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

Specifications subject to change without notice.

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Poet Plus 8100
Poet IQ 8500

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