GE HealthCare

Aladin$_2$ Cassettes

Anesthetic agent vaporizer with electronic control

Electronic control – a unique technology for vaporizing anesthetic agent

The electronic control on the Aisys™ CS^2 Anesthesia Delivery System provides unique benefits such as automatic record keeping of set agent concentrations and agent usage calculations.Agent-specific Aladin$_2$™ Cassettes can be used to deliver isoflurane, sevoflurane and desflurane anesthetic agents.

Our enhanced design provides:

- Integrated overfill protection
- On screen, electronic level sensing and agent identification
- Five filling options:
  - Easy-Fil™ Filler System
  - Safe-T-Seal™ (SEV) Integrated Valve Filler System
  - Quik-Fil (SEV) Filler System
  - Piramal Fill (SEV) Filler System
  - Safe-Fil™ (DES) Filler System
- A prismatic site glass for clear indication of liquid agent level
- Electronic Control allows for automatic record keeping, gas usage calculation, fresh gas flow compensation, and temperature/ pressure compensation
- Each cassette is magnetically coded for its specific agent allowing the Aisys CS^2 anesthesia machine to automatically identify the anesthetic cassette being used
- Lightweight cassette allows for easier handling
- No planned factory service required
- Vaporizer self-check and diagnostics

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Agent measurements

Electronic agent delivery control and level sensing

How it works

In the Aisys CS^2 system, anesthetic agent control consists of two parts: the electronic control mechanism in the anesthesia machine, and the separate Aladin$_2$ agent cassette.

Agent concentration is adjusted by regulating the amount of fresh gas flowing through the cassette. A proportional valve is used to regulate the flow. Part of the fresh gas bypasses the cassette, so the more fresh gas allowed to pass through the cassette, the greater the concentration. Fresh gas flow along with flows into and out of the cassette are electronically measured for safety.

Each Aladin$_2$ cassette is magnetically coded. This allows the Aisys CS^2 anesthesia system to recognize which type of agent cassette is inserted.

The agent vaporizes freely in the cassette without pressurization or heating. Pressure, temperature and fresh gas content (O_2 and N_2O/Air) are taken into account to help achieve greater accuracy when compared to traditional vaporizers.

Recommended filling procedure is to remove the cassette from the system before filling, and place the cassette on a flat surface while filling.

Benefits

Convenient

- The Aladin$_2$ cassette can be handled or stored in any position
- Weighing less than 3.4 kg/7.5 lbs, the Aladin$_2$ cassette can be easily carried and handled

Automatic record keeping and gas usage calculation

- Electronic control of desired agent concentration provides agent setting data for automatic record keeping
- Gas usage data provides a unique tool for low-flow savings analysis

Enhanced safety

- During the recommended daily system check, the Aisys CS^2 anesthesia system performs a check on the Aladin$_2$ cassette and electronic vaporizer
- Aisys CS^2 agent control is monitored every 200 milliseconds during operation

Easy-Fil bottle adapters

Physical specifications

Dimensions

Height	7 cm/2.76 in
Depth	24 cm/9.45 in
Width	14 cm/5.51 in
Empty weight	2.8 kg/6.2 lb

Cassette handling

No restriction for tilting during storage or handling.

Agent capacity	Iso, Sev	Des
Total	220 mL	Des 240 mL
Normal fill when indicator shows empty	125 mL (95 mL residual volume)	140 mL (100 mL residual volume)

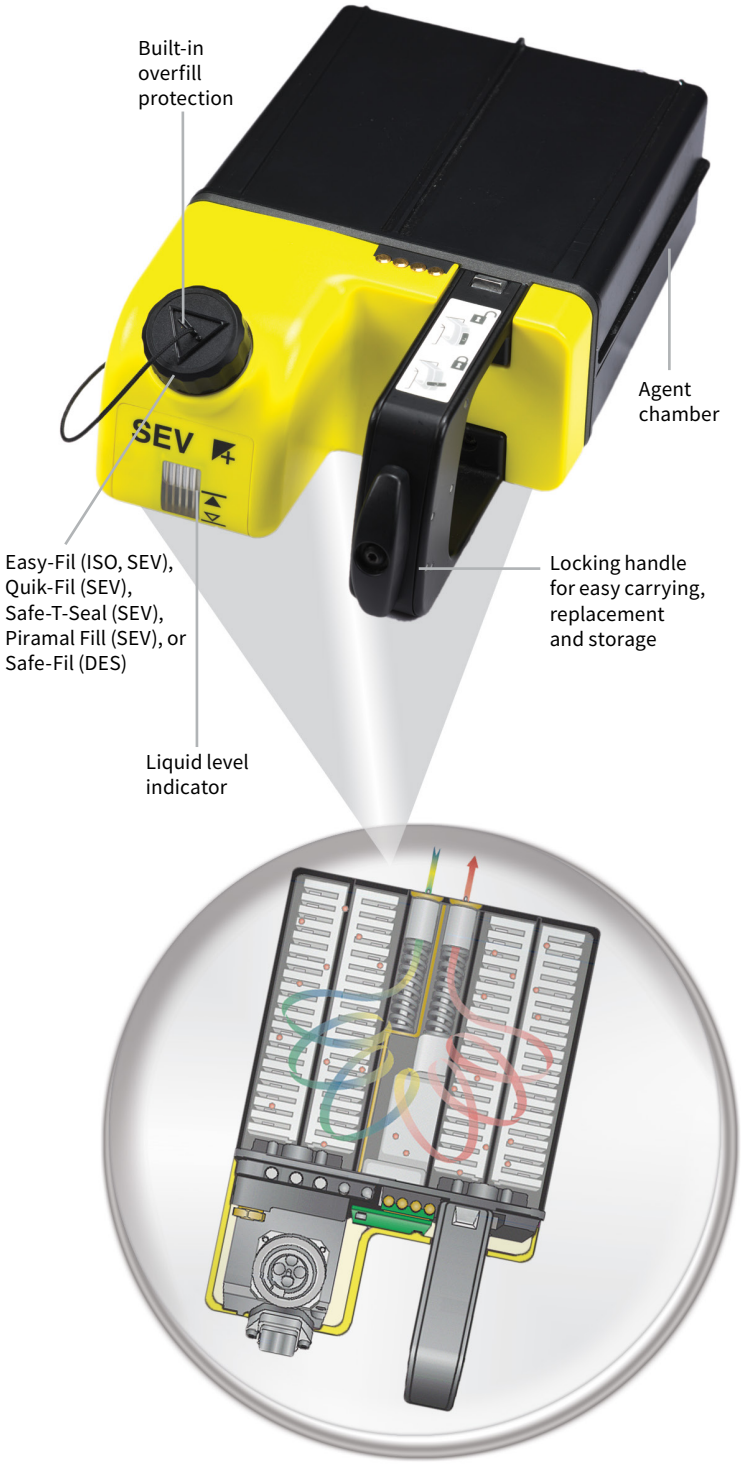
Filling

Overfilling protection	Overfilling prevention system built into the cassettes
Filling system	**Easy-Fil:** Filler system for Isoflurane and Sevoflurane
	Quik-Fil: Filler system compatible with AbbVie's system for Sevoflurane
	Safe-T-Seal: Filler system compatible with Baxter's system for Sevoflurane
	Safe-Fil: Filler system compatible with Baxter's system for Desflurane
	Piramal Fill: Filler system compatible with Piramal's system for Sevoflurane
Filling speed	> 2 mL/s

Environmental specifications

Temperature

Operating range	10° to 35°C/50° to 95°F
Storage range	-25° to 50°C/-13° to 122°F



Electronic specifications

Agent setting ranges

Isoflurane	OFF, 0.2 to 5% in fresh gas flow, resolution 0.1%
Sevoflurane	OFF, 0.2 to 8% in fresh gas flow, resolution 0.1%
Desflurane	OFF, 1 to 18% in fresh gas flow, resolution 0.2%

Accuracy

Isoflurane and Sevoflurane

In typical operating conditions:

Ambient temperature	18° to 25°C ±10% of setting or ±0.2% v/v (whichever is greater) Fresh gas flow range 1 to 10 L/min

In other operating conditions:

Ambient temperature	10° to 35°C ±20% of setting or ±0.4% v/v (whichever is greater) Fresh gas flow range 0.2 to 15 L/min

Desflurane

In typical operating conditions:

Ambient temperature	18° to 25°C ±10% of setting or ±0.5% v/v (whichever is greater) Fresh gas flow range 1 to 10 L/min

In other operating conditions:

Ambient temperature	10° to 35°C ±20% of setting or ±1% v/v (whichever is greater) Fresh gas flow range 0.2 to 15 L/min

The filler ports depicted in this datasheet may not be available in all countries and regions. Contact your GE Healthcare representative to see if a specific filler port is available in your country. The Aladin$_2$ Cassette for Desflurane with Piramal Fixed Filler (not shown) is not cleared in the USA. Not available for sale in the United States.

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DOC2757540 01/2023

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