



Access continuous EtCO₂ monitoring and infusion therapy on a single platform

Alaris™ EtCO₂ Module



Continuous respiratory monitoring across all patient care areas

Alaris™ PCA Pause Protocol pauses patient-controlled analgesia (PCA) infusions when hospital-established respiratory rate alarm limits are exceeded.

This unique BD Alaris™ system feature helps you identify adverse events and manage respiratory complications. It enables continuous respiratory monitoring to reduce the risk of respiratory depression from opioid infusions.¹

Real-time EtCO₂ and PCA dose trend data

Display trending helps you view real-time patient PCA infusion dosing, respiratory rate, end-tidal carbon dioxide (EtCO₂) value and no breath event status. These capabilities help you assess and respond to the patient's physiological response to PCA therapy.



Alaris™ EtCO₂ Module provides high-performance:

- Easy-to-use plug and play technology
- A full array of FilterLine™ nonintubated ET/CO₂ Patient Sampling Lines are available, featuring oral and nasal sampling as well as an innovative supplemental oxygen delivery system.
- For long-term monitoring, FilterLine™ sampling lines with drier moisture reduction technology are available
- Customizable profiles that add alarm limit flexibility across all patient care areas

Alaris™ EtCO₂ Module, with Medtronic Microstream™ Capnography technology

Alaris™ EtCO₂ Module promotes accuracy with:

- Small sampling size (50 mL/min) that measures accurate EtCO₂, respiratory rate, fractional inspired carbon dioxide (FiCO₂) and no breath values for all patient populations, from adult to neonatal
- Includes Smart Alarm for Respiratory Analysis™ Algorithm (SARA), which is engineered to reduce clinically insignificant respiratory rate alarms

Alaris™ EtCO₂ Module supports patient safety through:

- Adherence to current American Society of Anesthesiologists (ASA) and The Joint Commission standards recommending CO₂ monitoring for all anesthetized patients (*intubated and nonintubated*)²
- Added safety at the bedside to continuously monitor patient respiratory response to infusion therapy. When used with the Alaris™ PCA Module, it is the first and only infusion system to introduce PCA Pause Protocol, real-time EtCO₂ and PCA dose trend data
- Customizable alarm limits by care area utilizing Guardrails™ Software
- Visual indication of respiratory depression through capnography waveform

Medtronic provides these disposables:

- Intubated EtCO₂ and nonintubated EtCO₂ (*with or without O₂ administration*) FilterLine™ EtCO₂ Sampling Lines

Several societies have published guidelines promoting the utility of capnography for the detection or prevention of respiratory compromise in patients receiving opioids.

- Anesthesia Patient Safety Foundation (ASPF)³
- American Society of Anesthesiologists (ASA)⁴
- Institute for Safe Medication Practices Reducing Patient Harm from Opiates⁵
- Institute for Healthcare Improvement (IHI)⁶
- Joint Commission⁷

Specifications

Sampling rate	50 mL/min, nominal
EtCO ₂ measurement	0–99 mmHg (<i>at sea level</i>)
Respiration rate	0–150 breaths/min
FiCO ₂	0–99 mmHg (<i>at sea level</i>)
No breath limit	0–60 sec (<i>default = 30 sec</i>)

For more information, contact your BD sales consultant at 800.482.4822 or visit bd.com

References

1 Holmes A, Nichols C, Helmboldt G, et al. Bariatric surgery patients can be safely managed postoperatively on a medical-surgical unit utilizing continuous cardiorespiratory monitoring. *Surg Obes Relat Dis*. 2010;6(3):85-90. doi: 10.1016/j.soard.2010.03.093. 2 American Society of Anesthesiologists (ASA). *Basic Standards for Intraoperative Monitoring*, 1999. The Joint Commission, 2007. 3 Essential Monitoring Strategies to Detect Clinically Significant Drug-Induced Respiratory Depression in the Postoperative Period. Conclusions and Recommendations. APSF. <https://www.apsf.org/article/no-patient-shall-be-harmed-by-opioid-induced-respiratory-depression/>. Accessed September 28, 2011. 4 Horlocker TT, Burton AW, Connis RT, et al. Practice guidelines for the prevention, detection, and management of respiratory depression associated with neuraxial opioid administration. *Anesthesiology*. 2009;110(2):218-230. 5 HIGH ALERT Medication Feature: Reducing patient harm from opiates. <https://www.ismp.org/resources/high-alert-medication-feature-reducing-patient-harm-opiates>. Published February 22, 2007. Accessed February 14, 2019. 6 How-to Guide: Prevent Harm from High-Alert Medications. Institute for Healthcare Improvement. <http://www.ihc.org/resources/Pages/ToolsHowtoGuidePreventHarmfromHighAlertMedications.aspx>. Published 2012. Accessed February 14, 2019. 7 Safe use of opioids in hospitals. The Joint Commission. https://www.jointcommission.org/assets/1/18/SEA_49_opioids_8_2_12_final.pdf. Published August 8, 2012. Accessed February 14, 2019.

BD, San Diego, CA, 92130, U.S.

bd.com

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