

Because every breath matters

Microstream CO₂ FilterLine sampling lines

The sooner you know about changes in a patient's ventilation status, the more you can assess respiratory depression. That's why both the American Society of Anesthesiologists (ASA) and American Heart Association (AHA) recommend that waveform capnography be used to continually observe etCO $_2$ during resuscitation and sedation. Why capnography? Because it provides an early indication of respiratory compromise.¹

Philips Microstream etCO₂ FilterLine sampling lines and Microstream IPI software make it easy to use capnography to quickly assess and respond to adverse respiratory events. We deliver a broad range of quality FilterLine sampling lines for monitoring both intubated and non-intubated patients in the ICU and beyond.

Key advantages

- Choose from a wide range of sampling lines for pre-hospital care, critical care, the OR, sedation and general care
- All Philips Microstream FilterLine products are designed to provide etCO₂ readings
- Reliably assess a patient's ventilatory status with Philips IntelliVue patient monitors* with built-in Microstream IPI algorithm

 $[^]st$ Philips IntelliVue patient monitors as of Rev J.

"During moderate or deep sedation, the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure or equipment."²

A comprehensive approach to respiratory monitoring

The American Society of Anesthesiologists (ASA) and American Heart Association (AHA) have both documented the need to continually monitor the presence of exhaled carbon dioxide for patients under deep or moderate sedation.

Philips Microstream $etCO_2$ FilterLines are designed to provide $etCO_2$ readings of the patient's breath, so you can identify respiratory distress early, monitor changes continuously, and intervene quickly to enhance patient care.

The high cost of respiratory failure

Postoperative respiratory failure is the third most common patient safety incidence in hospitals every year, affecting some 600,000 patients and costing \$1.5 billion. Respiratory failure numbers continue to rise, now occurring in 17.2 of every 1,000 patients.

Health Grades Report, 2011

Smart Capnography for improved patient care

All Philips IntelliVue monitors, as of software Rev J, incorporate the Integrated Pulmonary Index (IPI). IPI is designed to improve patient care and streamline clinical workflow. This Smart Capnography algorithm may help you recognize changes in a patient's ventilatory status early, potentially heading off respiratory depression before it happens.³

IPI combines the real-time collection and interactions of four measurements — ${\rm etCO_2},$ respiration rate, ${\rm SpO_2}$ and pulse rate — to provide you with a comprehensive assessment of your patient's ventilatory status. It gives you a definitive, numerical reading of changes in patient status that goes beyond the value of any single parameter.

- Provides an indication of change in the patient's condition during interventions and therapy to improve care.
- Displays a single numeric for indication of a patient's ventilatory status and trends.
- Is designed to help facilitate communication between collaborating clinicians.

"Continuous quantitative waveform capnography is recommended for confirmation and monitoring of endotracheal tube placement."

American Heart Association (AHA)

A single system for multiple care settings

Philips offers a wide range of Microstream FilterLine sampling lines for monitoring etCO₂ in both intubated and non-intubated patients in virtually every area of care. As a result, you can standardize on a single brand of sampling lines to simplify purchasing and support cost savings.

Focused on what matters most

At Philips, we're committed to providing you with a comprehensive etCO₂ monitoring solution including hardware, software, consumable supplies and clinical training. So you have the confidence and freedom to focus on what matters most: your patients.

Microstream CO₂ FilterLine products at a glance

For non-intubated patients

Designed to collect accurate etCO₂ samples from your patient's nose or mouth; breathing patterns have limited effect on the waveform.

- Smart CapnoLine: for use in shortduration monitoring like procedural sedation or emergency care. Available with O₂.
- Smart CapnoLine H O2: for use in long-duration monitoring.
- Smart CapnoLine Guard: for use in upper endoscopy procedures.



Smart CapnoLine O,

Adult. oral/nasal 989803160281



Smart CaphoLine Guard O.

Adult, oral/nasal 989803178041



Smart CapnoLine O,

Pediatric, oral/nasal M2520A



Smart CapnoLine H O,

Adult, oral/nasal 989803177951

For intubated patients

These Microstream FilterLine sets combine an etCO₃ sample line and an airway adapter in a one-piece design to simplify monitoring.

- · Easy to use with neonate and adult patients.
- · Patented multi-port sampling airway adapter reduces clogging.
- · Long versions (4 m) offer flexibility.



Adult/pediatric M1920A



M1921A

Discover how Philips medical supplies and sensors can help you unlock the full value of your clinical systems at www.philips.com/supplies

Yes

Standard

Key applications

ED, critical care, rapid response

FilterLine

M1920A

Adult/pediatric (2 m) 989803160241 Adult/pediatric (4 m)

Long term

Key applications

ED, critical care, rapid response

FilterLine H

M1921A Adult/pediatric (2 m) 989803160251

Adult/pediatric (4 m) M1923A Neonatal (2 m) 989803160261 Neonatal (4 m)

High humidity

Key applicationsCritical care

Critical care

Vitaline H 989803159571

Adult/pediatric (2 m) 989803159581 Neonatal (2 m)

Short term, non-intubated

Key applications

Upper endoscopy procedures, TEE, bronchoscopy

Smart CapnoLine Guard Ø: 60 Fr

989803178031 (2 m)

Smart CapnoLine Guard O, Ø: 60 Fr

989803178041 (2 m) 989803178051 (4 m)

Hook and loop strap 989803178071

Does the patient need oxygen?

Yes

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Short term Key applications

EMS, ED

Nasal Nasal FilterLine O,

989803179101 Adult (2 m) 989803179111 Adult (4 m) 989803179121 Pediatric (2 m)

Key applications

OR, EMS, ED, rapid response, procedural sedation

Oral/nasal Smart CapnoLine O₃

M2522A Adult (2 m)
989803160281 Adult (4 m)
M2520A Pediatric (2 m)
989803160271 Pediatric (4 m)

Long term

Key applications

Critical care, sleep lab

Nasal CapnoLine H O₃

M4680A Adult (2 m) M4681A Pediatric (2 m) 989803178001 Infant/neonatal (2 m)

Key applications

Pain management, general floor, NIV, critical care

Oral/nasal Smart CapnoLine H O

989803177951 Adult (2 m) 989803177961 Adult (4 m) 989803177971 Pediatric (2 m) 989803177981 Pediatric (4 m)

Short term Key applications

EMS, ED Nasal

Nasai CapnoLine

M4686A Adult (2 m) M4687A Pediatric (4 m) 989803178021 Infant/neonatal (2 m)

Key applications

OR, EMS, ED, rapid response, procedural sedation

Oral/nasal Smart CapnoLine

M2526A Adult (2 m) 989803160301 Adult (4 m) M2524A Pediatric (2 m)

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No

Long term Key applications

No

Critical care, sleep lab

Nasal CapnoLine H

M4689A Adult (2 m) M4691A Infant/neonatal (2 m) 989803178011 Infant/neonatal (4 m)

References

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- 2. Committee of Origin: Standards and Practice Parameters, Standards for Basic Anesthetic Monitoring. American Society of Anesthesiologists (Approved by the ASA House of Delegates on October 21, 1986, last amended on October 20, 2010, and last affirmed on October 28, 2015).
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- 4. Neumar RW, Otto CW; Link MS et al, 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, Part 8: Adult Advanced Cardiovascular Life Support. Circulation. 2010;122[suppl 3]:S729–S767.

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