

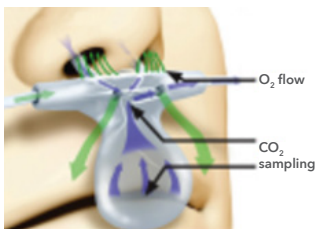
Value beyond the gold ring

Key clinical advantages of Microstream™ Advance capnography filter lines

Designed to work with the Microstream™ capnography system

Uni-junction™ sampling technology:

The Microstream™ Advance filter line is designed with a patented Uni-junction™ technology. This patented technology will pick up the patient's exhaled gas even in instances of nasal cycling, septal deviation, or other nasal occlusions due to the positive pressure generated by the exhaled gas. This unique sampling is not impacted by the addition of supplemental oxygen.



O₂ delivery:

Independent of CO₂ sampling. The addition of supplemental oxygen does not impact etCO₂ readings even in times of high respiratory rate variability unlike other capnography manufacturers.¹

0.2-micron filter:

Designed to protect the machine from contamination.



1.0 mm ID microbore tubing:

Allows for fast response time and crisp waveforms.

Smart Capnography™ family of algorithms:

Smart Breath Detection™ algorithm (SBD) Proprietary filter and pattern recognition algorithm is designed to screen out low-amplitude "non-breath" etCO₂ excursions like snoring, talking, or crying, to offer a more reliable respiratory rate.

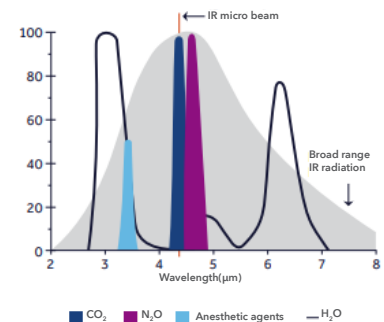
Smart Alarm for Respiratory Analysis™ algorithm (SARA)

Functioning in combination with SBD, SARA is designed to respond accurately to clinically significant events. It is engineered to reduce the number of nuisance respiratory alarms while providing a comprehensive picture of respiratory status.

SARA has been shown to reduce clinically insignificant, unactionable nuisance alarms by 53%²⁻³

Molecular Correlation Spectroscopy™ (MCS)

Using a 50 ml/min sample size and CO₂ specific technology, Microstream™ capnography monitors are designed to offer clear, crisp waveforms and accurate measurements with no impact from the presence of other gases (I.e: O₂, N₂O, He, or inhaled anesthetics.)



With MCS, only the CO₂ specific wavelength is used to measure the exhaled gas. This means the measurement is not affected by other gases and does not require individual patient calibration.

Additional clinical advantages:

- Single piece consumable solution (no assembly required)
- Lightweight consumables
- <3.5 second response time[†]
- Annual calibration or every 4000 hours
- Capnography solutions for across the continuum of care from neonate to adult, intubated and non-intubated
- Compatible with full face mask Bipap/CPAP
- Compatible with oxygen mask
- Softer tubing for improved patient comfort and compliance⁴

The Microstream™ capnography monitoring system should not be used as the sole basis for diagnosis or therapy and is intended only as an adjunct in patient assessment.

Full instructions for use should be reviewed before use by qualified personnel.

Clinical documentation

Scan the QR codes to check more information

Not all cannulas are created equal:
the influence of sampling line design
on capnography performance



Advanced capnography sampling lines may
improve patient comfort and compliance



Sampling line compatibility claim letter



Evaluation of capnography sampling line
compatibility and accuracy when used with a
portable capnography monitor



Filterline™ sampling line tech brief



Customer device damage letter



† Response time is a factor of hardware and filter
line length

1. Karpenkop I, Glozman D, Peri D, Liu KE. (2021). Not all cannulas are created equal: the influence of sampling line design on capnography performance. Medtronic.
2. Hockman S, Glembot T, Niebel K. Comparison of capnography derived respiratory rate alarm frequency using the SARA algorithm versus an established non-adaptive respiratory rate alarm management algorithm in bariatric surgical patients. *Respir Care*. 2009;54(11).
3. Colman J, Cohen J, Lain D. Smart alarm respiratory analysis (SARA) used in capnography to reduce alarms during spontaneous breathing. *Anesth Analg*. 2008;106(4S):S-10.
4. Blonder Y, Mazor E, Jew K. Advanced Capnography Sampling Lines May Improve Patient Comfort and Compliance. *Med Devices (Auckl)*. 2021;14:37-42<https://doi.org/10.2147/MDER.S292526>

©2024 Medtronic. Medtronic, Medtronic logo, and Engineering the extraordinary are trademarks of Medtronic. All other brands are trademarks of a Medtronic company. 10/2024 - US-PM-2300526 - [WF#11328973]