

A healthcare professional in a blue shirt is adjusting a nasal cannula on a patient lying in a hospital bed. The patient is wearing a patterned hospital gown. In the background, there is a medical monitor on a stand and some flowers.

**Medtronic**

# The right sampling line for every patient

Microstream™ Advance Filter Lines  
Microstream™ Luer Sampling Lines

Quick  
reference  
guide

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# Introducing the new Microstream™ Advance filter line and Microstream™ Luer sampling line portfolio



We continuously strive to enhance our products and technologies for you and your patients. And we've done it again. Medtronic is pleased to introduce the Microstream™ Advance filter lines and Microstream™ Luer sampling lines portfolio.

It's the little things that create the biggest impact for your patients. From how a device touches their skin to the sounds in their rooms to the smells that remind them they are away from home. That's why we redesigned our capnography sampling lines – with the patient in mind.

The new sampling lines still have the reliability and accuracy you've come to expect from Microstream™ technology – but with an improved neutral scent and soft, kink-resistant tubing.

Additionally, the drying element on long duration sampling lines has been moved further down the tubing and away from the patient's face. The new placement maintains the integrity and trusted drying performance of our long duration sampling lines.

Product packaging enhancements to the Microstream™ capnography portfolio of sampling lines include:

- Redesigned packaging for enhanced usability and instructions for proper sampling line placement
- New product naming structure and order codes updated to be more intuitive for easily identifying the right sampling line for the right patient

## Terminology

<b>Category:</b>	<b>MV</b> (Microstream™ Advance filter line) <b>ML</b> (Microstream™ Luer sampling line)
<b>Size:</b>	<b>A</b> (Adult - includes Adult-Pediatric and Adult-Intermediate) <b>P</b> (Pediatric only) <b>I</b> (Infant/Neonatal)
<b>Sampling line type:</b>	<b>I</b> (Intubated) <b>B</b> (Guardian Bite Block) <b>N</b> (Nasal)
<b>Oxygen:</b>	<b>O</b> (with oxygen)
<b>Humidity:</b>	<b>HH</b> (High humidity) <b>H</b> (Humidity)
<b>Length:</b>	<b>L</b> (Long) <b>XL</b> (Extra long)
<b>Quantity:</b>	<b>100u</b> indicates box of 100

# Microstream™ capnography sampling lines

## Sampling Line Portfolio

- **Microstream™ Advance filter lines** for use with Microstream™ capnography monitors and multiparameter monitors equipped with Microstream™ technology
  - Orange connectors designate short-term use
  - Yellow connectors designate use for extended duration
- **Microstream™ Luer sampling line (blue connector)** for use with most types of sidestream monitors with a standard luer input connector

## Connectors



### Orange Connector

Short-term use  
Microstream™ Advance filter line: Quick-seal connection with a single twist, for a tight seal to the monitor



### Yellow Connector

Extended duration  
Microstream™ Advance filter line: Quick-seal connection with a single twist, for a tight seal to the monitor



### Blue Connector

Microstream™ Luer™ sampling line

## Integrated oxygen connectors



### Male O<sub>2</sub> Connector








### Female O<sub>2</sub> Connector



# Microstream™ advance filter lines

## Non-intubated patient, short-term use: Procedure/Emergency


Product and features		Ordering information			
 <p><b>Adult</b> <b>Microstream™ Advance oral/nasal filter line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MVA</b>	O <sub>2</sub> male connector	25	Standard: 6.5 ft/200 cm	
	<b>MVA100U</b>	O <sub>2</sub> male connector	100	Standard: 6.5 ft/200 cm	
	<b>MVAL</b>	O <sub>2</sub> male connector	25	Long: 13 ft/400 cm	
	<b>MVAL100U</b>	O <sub>2</sub> male connector	100	Long: 13 ft/400 cm	
	<b>MVAO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MVAO100U</b>	O <sub>2</sub> tubing female connector	100	Standard: 6.5 ft/200 cm	
	<b>MVAOL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	
	<b>MVAOL100U</b>	O <sub>2</sub> tubing female connector	100	Long: 13 ft/400 cm	
 <p><b>Pediatric</b> <b>Microstream™ Advance oral/nasal filter line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Available with or without O<sub>2</sub> delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MVP</b>	No O <sub>2</sub> delivery	25	Standard: 6.5 ft/200 cm	
	<b>MVPO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MVPOL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	
 <p><b>Adult and pediatric</b> <b>Microstream™ Advance nasal filter line</b></p> <ul style="list-style-type: none"> <li>• Nasal sampling only</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Patient type	Length
	<b>MVANO</b>	O <sub>2</sub> tubing female connector	25	Adult	Standard: 6.5 ft/200 cm
	<b>MVANO100U</b>	O <sub>2</sub> tubing female connector	100	Adult	Standard: 6.5 ft/200 cm
	<b>MVANOL</b>	O <sub>2</sub> tubing female connector	25	Adult	Long: 13 ft/400 cm
	<b>MVANOL100U</b>	O <sub>2</sub> tubing female connector	100	Adult	Long: 13 ft/400 cm
	<b>MVPNO</b>	O <sub>2</sub> tubing female connector	25	Pediatric	Standard: 6.5 ft/200 cm
 <p><b>Adult, pediatric, and neonatal</b> <b>Microstream™ Advance nasal filter line</b></p> <ul style="list-style-type: none"> <li>• Nasal sampling only</li> <li>• No O<sub>2</sub> delivery</li> </ul>	Part number	Units per box	Patient type	Length	
	<b>MVAN</b>	25	Adult	Standard: 6.5 ft/200 cm	
	<b>MVIN</b>	25	Infant/neonate	Standard: 6.5 ft/200 cm	
	<b>MVPN</b>	25	Pediatric	Standard: 6.5 ft/200 cm	
 <p><b>Bite block and filter line</b> <b>Microstream™ Advance bite block filter line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> <li>• O<sub>2</sub> delivery system can administer oxygen flow up to 10 L/min</li> <li>• Accommodates up to 60 Fr endoscope</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MVAB</b>	O <sub>2</sub> male connector	25	Standard: 6.5 ft/200 cm	
	<b>MVABO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MVABOL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	
	<b>MVAB100U</b>	O <sub>2</sub> male connector	100	Standard: 6.5 ft/200 cm	
	<b>MVABO100U</b>	O <sub>2</sub> tubing female connector	100	Standard: 6.5 ft/200 cm	
	<b>MVABOL100U</b>	O <sub>2</sub> tubing female connector	100	Long: 13 ft/400 cm	

# Microstream™ advance filter lines


## Intubated patient, short-term use: Procedure/Emergency


Product and features		Ordering information		
 <p><b>Adult and pediatric</b> <b>Microstream™ Advance intubated filter line</b></p> <ul style="list-style-type: none"> <li>Intended for use with ETT size &gt; 4.5 mm</li> </ul>	Part number	Units per box	Length	
	<b>MVAI</b>	25	Standard: 6.5 ft/200 cm	
	<b>MVAI100U</b>	100	Standard: 6.5 ft/200 cm	
	<b>MVAIL</b>	25	Long: 13 ft/400 cm	


## Accessories

Product and features		Ordering information				
 <p><b>For use with patients during MRI</b> <b>Microstream™ Advance filter line</b></p> <ul style="list-style-type: none"> <li>Designed for use during MRI when the monitor is placed outside the suite and an extended filter line is required</li> </ul>	Part number	Configuration	Units per box	Patient type	Length	
	<b>MVXL</b>	No O <sub>2</sub> delivery	25	All	30 ft/900 cm	

## Nonintubated patient, extended duration: Intensive care/Long term care

Product and features		Ordering information			
 <p><b>Adult</b> <b>Microstream™ Advance oral/nasal filter line</b></p> <ul style="list-style-type: none"> <li>Samples from both the mouth and the nose</li> <li>Drier moisture reduction technology</li> <li>Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MVAOH</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MVAOH100U</b>	O <sub>2</sub> tubing female connector	100	Standard: 6.5 ft/200 cm	
	<b>MVAOHL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	

Product and features		Ordering information			
 <p><b>Pediatric</b> <b>Microstream™ Advance oral/nasal filter line</b></p> <ul style="list-style-type: none"> <li>Samples from both the mouth and the nose</li> <li>Drier moisture reduction technology</li> <li>Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MVPOH</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MVPOHL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	


Product and features		Ordering information			
 <p><b>Adult, pediatric and neonatal</b> <b>Microstream™ Advance nasal filter line</b></p> <ul style="list-style-type: none"> <li>Nasal sampling only</li> <li>Drier moisture reduction technology</li> <li>Integrated O<sub>2</sub> tubing for supplemental oxygen delivery available</li> </ul>	adult .....	Part number	Configuration	Units per box	Length
		<b>MVANH</b>	No O <sub>2</sub> delivery	25	Standard: 6.5 ft/200 cm
	pediatric .....	<b>MVANOHL</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm
		<b>MVPNOH</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm
	neonatal .....	<b>MVINH</b>	No O <sub>2</sub> delivery	25	Standard: 6.5 ft/200 cm
		<b>MVINOHL</b>	O <sub>2</sub> tubing female connector	25	Medium: 9.8 ft/300 cm
		<b>MVINHL</b>	No O <sub>2</sub> delivery	25	Long: 13 ft/400 cm


# Microstream™ advance filter lines

## Intubated patient, extended duration

Product and features		Ordering information		
 <p><b>Adult and pediatric</b> <b>Microstream™ Advance intubated filter line</b></p> <ul style="list-style-type: none"> <li>• Intended for use with ETT &gt; 4.5 mm</li> <li>• Drier moisture reduction technology</li> </ul>	Part number	Units per box	Length	
	<b>MVAIH</b>	25	Standard: 6.5 ft/200 cm	
	<b>MVAIH100U</b>	100	Standard: 6.5 ft/200 cm	
	<b>MVAIHL</b>	25	Long: 13 ft/400 cm	


 <p><b>Neonatal</b> <b>Microstream™ Advance intubated filter line</b></p> <ul style="list-style-type: none"> <li>• Intended for use with ETT ≤ 4.5 mm</li> <li>• Drier moisture reduction technology</li> </ul>	Part number	Units per box	Length	
	<b>MVIIH</b>	25	Standard: 6.5 ft/200 cm	
	<b>MVIIHL</b>	25	Long: 13 ft/400 cm	


 <p><b>Adult and pediatric</b> <b>Microstream™ Advance intubated filter line</b></p> <ul style="list-style-type: none"> <li>• Intended for use with ETT &gt; 4.5 mm</li> <li>• Extended drier moisture reduction technology for high ambient humidity</li> </ul>	Part number	Units per box	Length	
	<b>MVAIHH</b>	25	Standard: 6.5 ft/200 cm	


 <p><b>Neonatal</b> <b>Microstream™ Advance intubated filter line</b></p> <ul style="list-style-type: none"> <li>• Intended for use with ETT ≤ to 4.5 mm</li> <li>• Longer drier moisture reduction technology for high ambient humidity</li> </ul>	Part number	Units per box	Length	
	<b>MVIIHH</b>	25	Standard: 6.5 ft/200 cm	


# Microstream™ Luer sampling lines

## Nonintubated patient, short-term use: Procedure/Emergency/OR

Product and features		Ordering information			
 <p><b>Adult</b> <b>Microstream™ Luer sampling line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MLA</b>	O <sub>2</sub> tubing male connector	25	Standard: 6.5 ft/200 cm	
	<b>MLAO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	
	<b>MLA100U</b>	O <sub>2</sub> tubing male connector	100	Standard: 6.5 ft/200 cm	
	<b>MLAO100U</b>	O <sub>2</sub> tubing female connector	100	Standard: 6.5 ft/200 cm	

 <p><b>Pediatric</b> <b>Microstream™ Luer sampling line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MLPO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200 cm	

 <p><b>Adult and pediatric</b> <b>Microstream™ Luer nasal sampling line</b></p> <ul style="list-style-type: none"> <li>• Nasal sampling only</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> </ul>	Part number	Configuration	Units per box	Patient type	Length
	<b>MLANO</b>	O <sub>2</sub> tubing female connector	25	Adult	Standard: 6.5 ft/200 cm
	<b>MLPNO</b>	O <sub>2</sub> tubing female connector	25	Pediatric	Standard: 6.5 ft/200 cm

 <p><b>Bite block and sampling line</b> <b>Microstream™ Luer Bite Block sampling line</b></p> <ul style="list-style-type: none"> <li>• Samples from both the mouth and the nose</li> <li>• Integrated O<sub>2</sub> tubing for supplemental oxygen delivery</li> <li>• O<sub>2</sub> delivery system can administer oxygen flow up to 10 L/min</li> <li>• Accommodates up to 60 Fr endoscope</li> </ul>	Part number	Configuration	Units per box	Length	
	<b>MLABO</b>	O <sub>2</sub> tubing female connector	25	Standard: 6.5 ft/200cm	
	<b>MLABOL</b>	O <sub>2</sub> tubing female connector	25	Long: 13 ft/400 cm	

# Microstream™ Luer sampling lines

## Intubated patient, short-term use: Procedure/Emergency/OR

Product and features		Ordering information		
	<b>Adult</b> <b>Microstream™ Luer intubated sampling line</b>	Part number	Units per box	Length
	<ul style="list-style-type: none"> <li>Intended for use with ETT &gt; 4.5 mm</li> </ul>	<b>MLAI</b>	25	Standard: 6.5 ft/200 cm

## Accessories

Product and features		Ordering information		
	<b>Male/male luer adapter, airway adapter, CO<sub>2</sub> sampling line</b>	Part number	Configuration	Units per box
		<b>010555</b>	Male/male luer adapter	25
		<b>010989</b>	Airway adapter	25
		<b>ML</b>	CO <sub>2</sub> sampling line (short-term: procedural/emergency)	25



# Legacy SKU and new SKU reference chart

## Short-term sampling lines



Legacy SKU	New SKU	Description
009818	<b>MVA</b>	Oral/nasal, adult
010209	<b>MVA100U</b>	Oral/nasal, adult, 100 ct
010340	<b>MVAL</b>	Oral/nasal, adult, long
010339	<b>MVAL100U</b>	Oral/nasal, adult, long, 100 ct
009822	<b>MVAO</b>	Oral/nasal, adult, w/O <sub>2</sub> tubing
010210	<b>MVAO100U</b>	Oral/nasal, adult w/O <sub>2</sub> tubing, 100 ct
009826	<b>MVAOL</b>	Oral/nasal, adult w/O <sub>2</sub> tubing, long
010341	<b>MVAOL100U</b>	Oral/nasal, adult w/O <sub>2</sub> tubing, long, 100 ct
007266	<b>MVP</b>	Oral/nasal, pediatric
007269	<b>MVPO</b>	Oral/nasal, pediatric w/O <sub>2</sub> tubing
007743	<b>MVPOL</b>	Oral/nasal, pediatric w/O <sub>2</sub> tubing, long
006912	<b>MVANO</b>	Nasal, adult w/O <sub>2</sub> tubing
010304	<b>MVANO100U</b>	Nasal, adult w/O <sub>2</sub> tubing, 100 ct
007739	<b>MVANOL</b>	Nasal, adult w/O <sub>2</sub> tubing, long
010344	<b>MVANOL100U</b>	Nasal, adult w/O <sub>2</sub> tubing, long, 100 ct
006913	<b>MVPNO</b>	Nasal, pediatric w/O <sub>2</sub> tubing
XS04476	<b>MVIN</b>	Nasal NIV line, neonatal
008174	<b>MVAN</b>	Nasal NIV line, adult
008175	<b>MVPN</b>	Nasal NIV line, pediatric
012528	<b>MVAB</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing- male connector
012537	<b>MVAB100U</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing- male connector, 100 ct
012529	<b>MVABO</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing- female connector
012538	<b>MVABO100U</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing- female connector, 100 ct
012530	<b>MVABOL</b>	Adult-intermediate w/O <sub>2</sub> tubing- female connector, long
012539	<b>MVABOL100U</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing- female connector, long, 100 ct
006325	<b>MVXL</b>	MRI sampling line, XL (9 m)
XS04620	<b>MVAI</b>	Intubated, adult-pediatric
010579	<b>MVAI100U</b>	Intubated, adult-pediatric, 100 ct
007768	<b>MVAIL</b>	Intubated, adult-pediatric, long

# Legacy SKU and new SKU reference chart

## Long-term sampling lines



Legacy SKU	New SKU	Description
010433	<b>MVAOH</b>	Oral/nasal, adult w/O <sub>2</sub> tubing
010625	<b>MVAOH100U</b>	Oral/nasal, adult w/O <sub>2</sub> tubing, 100 ct
012463	<b>MVAOHL</b>	Oral/nasal, adult w/O <sub>2</sub> tubing, long
010582	<b>MVPOH</b>	Oral/nasal, pediatric w/O <sub>2</sub> tubing
012464	<b>MVPOHL</b>	Oral/nasal, pediatric w/O <sub>2</sub> tubing, long
008177	<b>MVANH</b>	Nasal, adult
008179	<b>MVINH</b>	Nasal, neonatal-infant
012465	<b>MVINHL</b>	Nasal, neonatal-infant, long
008180	<b>MVANOHL</b>	Nasal, adult w/O <sub>2</sub> tubing
008181	<b>MVPNOH</b>	Nasal, pediatric w/O <sub>2</sub> tubing
012111	<b>MVINOHL</b>	Nasal, neonatal-infant w/O <sub>2</sub> tubing, 3 m
XS04624	<b>MVAIH</b>	Intubated, adult-pediatric
010580	<b>MVAIH100U</b>	Intubated, adult-pediatric, 100 ct
007737	<b>MVAIHL</b>	Intubated, adult-pediatric, long
006324	<b>MVIIH</b>	Intubated, neonatal-infant
007738	<b>MVIIHL</b>	Intubated, neonatal-infant, long
010787	<b>MVAIHH</b>	Intubated, adult-pediatric, high humidity
010807	<b>MVIIHH</b>	Intubated, neonatal-infant, high humidity

# Legacy SKU and new SKU reference chart

## Short-term sampling lines



Legacy SKU	New SKU	Description
010172	<b>MLA</b>	Oral-nasal, adult, w/O <sub>2</sub> tubing- male connector
010177	<b>MLAO</b>	Oral-nasal, adult, w/O <sub>2</sub> tubing- female connector
010212	<b>MLA100U</b>	Oral-nasal, adult, w/O <sub>2</sub> tubing- male connector, 100 ct
010213	<b>MLAO100U</b>	Oral-nasal, adult, w/O <sub>2</sub> tubing- female connector, 100 ct
007606	<b>MLPO</b>	Oral-nasal, pediatric, w/O <sub>2</sub> tubing
007609	<b>MLANO</b>	Oral-nasal, adult w/O <sub>2</sub> tubing
007610	<b>MLPNO</b>	Oral-nasal, pediatric w/O <sub>2</sub> tubing
012531	<b>MLABO</b>	Adult-intermediate with bite block and w/O <sub>2</sub> tubing
012532	<b>MLABOL</b>	Adult-intermediate with bite block and w/O <sub>2</sub>
012495	<b>MLAI</b>	Intubated, adult-pediatric
010991	<b>ML</b>	CO <sub>2</sub> sampling line, 2 m
010989	<b>010989</b>	Airway adapter
010555	<b>010555</b>	Male-to-male adaptor

Single patient use only.

All Microstream™ Advance filter lines and Microstream™ Luer sampling lines are DEHP-free.

Adult/pediatric products are intended for use with ETT tube size > 4.5 mm.  
The adapter dead space is < 6.6 cc and the weight is 7.0 g.

Infant/neonate products are intended for use with ETT tube size ≤ 4.5 mm.  
The adapter dead space is < 0.5 cc and the weight is 3.8 g.

CO<sub>2</sub> sampling lines including moisture reduction technology for high humidity environments (noted by H or HH in the part number) are not MRI compatible. Use of non-H sampling lines is advised.

All specifications are subject to change without notice.

## Medtronic

Important: Please refer to the package insert for complete instructions, contraindications, warnings and precautions.

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