



*EtCO<sub>2</sub> monitoring with the  
SLE6000 ventilator*

## CO<sub>2</sub> Monitoring



# SLE6000: Monitoring progress

## Capnography

Capnography is an established non-invasive method for monitoring the level of carbon dioxide in exhaled breath (etCO<sub>2</sub>) to assess a patient's ventilatory status. In the past, this has always been separate to the ventilator.

## Ventilator Integration

SLE has developed an optional CO<sub>2</sub> software module for use with the SLE6000 ventilator. This requires an external hardware module, the MicroPod™, that plugs into the rear panel of the SLE6000 and sends data on CO<sub>2</sub> from the patient to the ventilator to display and trend.

## How it works

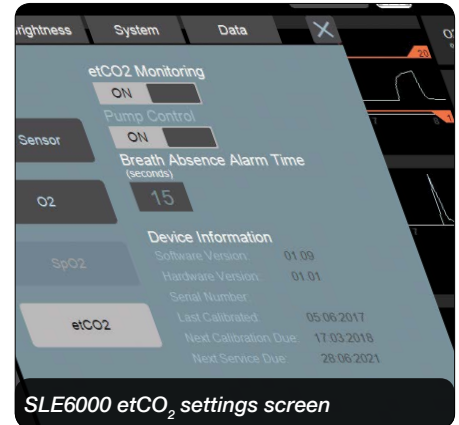
Microstream™ technology offers a highly specific measurement technology using Molecular Correlation Spectroscopy™ (MCS) technology to continuously measure the amount of CO<sub>2</sub> during every breath, particularly the amount of CO<sub>2</sub> present at the end of exhalation (etCO<sub>2</sub>).

The Microstream™ etCO<sub>2</sub> sampling lines deliver a sample of the inhaled and exhaled gases from the ventilator circuit into the monitor for CO<sub>2</sub> measurement. Moisture and patient secretions are extracted from the sample, while maintaining the shape of the CO<sub>2</sub> waveform. A 50 ml/min sampling flow rate is ideally suited to infant/neonatal applications.

Once inside the Microstream™ CO<sub>2</sub> sensor, the gas sample goes through a micro-sample cell (15 microlitres). This extremely small volume is quickly flushed, allowing for fast rise time and accurate CO<sub>2</sub> readings, even at higher respiration rates.

## Key Benefits:

- Respiratory gas monitoring incorporated into the ventilator interface.
- CO<sub>2</sub> monitoring can confirm correct placement of ET tube and adequate ventilation.
- On-screen trends show gradual and sudden changes in CO<sub>2</sub> output.
- CO<sub>2</sub> reading can be visually correlated with ventilation parameters when viewed in trend mode.
- Allows NICUs without CO<sub>2</sub> monitoring to add CO<sub>2</sub> monitoring at a time that suits them.
- Bracket available for convenient mounting on the SLE6000 trolley.
- Microstream™ capnography technology offers Plug-and-Play technology — turn on monitor, attach sampling line, and begin monitoring.
- No individual patient calibration or zeroing required.
- Automatic adjustment for changes in ambient temperature: not impacted by temperature fluctuations.
- Low flow 50 ml/minute sample rate - effective for infant/neonatal sampling.
- 0.2 micron sterilizing-grade filter designed to reduce risk of biohazard contamination of the monitor.



SLE6000 etCO<sub>2</sub> settings screen



SLE6000 etCO<sub>2</sub> waveform and digital data



SLE6000 etCO<sub>2</sub> trend screen

# Part numbers and Specifications

## Specifications

Item	Value
CO <sub>2</sub> Units	User selectable (mmHg or kPa or Vol%)
EtCO <sub>2</sub> Range	0-99.9 mmHg
EtCO <sub>2</sub> , Resolution	1 mmHg
CO <sub>2</sub> Accuracy	0-38 mmHg: ± 2 mmHg 39-150 mmHg: ± (5% of reading + 0.08 x [reading - 39 mmHg])

Item	Value
CO <sub>2</sub> sampling flow rate	50 ml/min (+15 ml/min, -7.5 ml/min) flow measured by volume
Waveform Sampling	20 samples/s
Initialization Time	40 s (typical, includes power-up and initialization time)
Weight	240g
Dimensions (mm)	70 (w) x 93.3 (l) x 50.3 (h)

Operating Conditions	
Temperature	0° to 40°C
Pressure	57 kPa to 106 kPa (430 mmHg to 795 mmHg)
Humidity	10% to 95% (non-condensing)

Microstream™ technology is designed for use during invasive ventilation in conventional modes. It is currently not recommended for use in NIV or during HFOV.

SLE are able to supply one box of FilterLine™ sampling lines per MicroPod™ module. Further supplies should be purchased from the local representative.

Specifications subject to change without notice.

## Part Numbers

Part Number	Description
<b>Z6000/ETC</b>	EtCO <sub>2</sub> Monitoring software module for SLE6000
<b>LETC2/KIT</b>	MicroPod™ module starter kit for SLE6000 ventilator containing: 1 x LETC2/RS03000 Microstream™ etCO <sub>2</sub> module, 1 x LETC2/9283 MicroPod™ mounting kit (clip), 1 x LETC2/6324/001 FilterLine® H Set Infant/Neonatal sampling line (1 pc), 1 x LETC2/7738/001 FilterLine® H Set Infant/Neonatal sampling line (long) (1 pc).

FilterLine™ H Sampling Line	
<b>LETC2/6324</b>	Infant/Neonatal (Box of 25) (2m, 6.5ft)
<b>LETC2/7738</b>	Infant/Neonatal (Long) (Box of 25) (4m, 13ft)

Other	
<b>LETC2/9283</b>	MicroPod™ module mounting kit (clip)
<b>LETC2/9348</b>	MicroPod™ module calibration software kit

- All breath sampling lines are for single patient use only.
- Infant/Neonate products are intended for use with ETT tube size ≤ 4.5 mm.
- The adaptor dead space is <0.5 ml and the weight is 3.8 g.
- Use of a CO<sub>2</sub> sampling line with H in its name (indicating that it is for use in humidified environments) during MRI scanning may cause interference.



MicroPod™ Module



FilterLine™ H Set sampling line



MicroPod™ Module mounting kit (clip)

## References

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Value of Capnography in Infants

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