



The Vital Medical Capnograph Sidestream CA10S (VM-CAS10S) is a portable sidestream CO₂ monitoring device that continuously measures end-tidal CO₂ (EtCO₂) and respiratory rate. Used in ICU, operating theatres, emergency departments, and during procedural sedation to verify airway placement and monitor ventilation.

What Is a Sidestream Capnograph?

The CA10S is a sidestream capnograph – an instrument that continuously samples expired gas from the patient's airway through a fine sampling line and measures the carbon dioxide concentration in real time. The resulting waveform (capnogram) and numerical EtCO₂ value are displayed on screen, providing immediate, non-invasive confirmation of airway patency, tube placement, and adequacy of ventilation. Sidestream capnography is suitable for both intubated and spontaneously breathing patients using nasal sampling cannulas.

Clinical Applications

EtCO₂ monitoring is the gold standard for confirming endotracheal tube placement after intubation – it is more reliable than auscultation and chest X-ray for immediate confirmation. It is also used to monitor the adequacy of ventilation during procedural sedation, general anaesthesia, and post-operative recovery; to detect oesophageal intubation (absence of CO₂ waveform); to monitor respiratory rate and detect apnoea; and to assess return of spontaneous circulation (ROSC) during CPR, where rising EtCO₂ is an early sign of cardiac output recovery.

Sidestream Sampling Advantage

Sidestream capnographs aspirate a small gas sample (typically 50–150ml/min) from the breathing circuit or via a nasal cannula and analyse it in the main unit. This design is lightweight, compatible with both intubated and non-intubated patients, and suitable for MRI environments (with appropriate accessories). The CA10S connects to standard 22mm breathing circuits and nasal sampling cannulas.

Technical Specifications

Specification		Detail
Specification	Value	
Type	Sidestream capnograph	

Specification	Detail
Measurement	End-tidal CO ₂ (EtCO ₂), InspCO ₂ , respiratory rate
EtCO ₂ Range	0-99 mmHg (0-13.2%)
Respiratory Rate Range	0-150 BPM
Sampling Method	Sidestream (nasal cannula or circuit line)
Application	Intubation confirmation, procedural sedation, ICU, anaesthesia
Compatibility	Standard 22mm breathing circuits, nasal sampling cannulas
Setting	ICU, OR, emergency, recovery, pre-hospital

SKU: VM-CAS10S