

## Dräger CO<sub>2</sub> cuvettes and mainstream sensors

Dräger offers a wide range of CO<sub>2</sub> monitoring accessories including dedicated reusable and disposable CO<sub>2</sub> cuvettes as well as mainstream CO<sub>2</sub> sensors to improve patient safety in a convenient way.



The Dräger mainstream CO<sub>2</sub> sensors offer non-invasive measurement of etCO<sub>2</sub> with a rapid response CO<sub>2</sub> sensor. It uses an infrared sensor to measure carbon dioxide directly at the end of the endotracheal tube. Hence the response is faster in comparison to the sidestream measurement and the measuring misreadings are reduced<sup>3</sup>. Dräger offers a complete portfolio of CO<sub>2</sub> cuvettes for adults and infants. The variety of CO<sub>2</sub> cuvettes available allows usage for different patient profiles.

**Clinical aspects** – In intensive care, capnography is applied as a noninvasive way for evaluating a patient's ventilatory status<sup>1</sup>. It can be used to assess changes in ventilation, pulmonary perfusion and metabolism to support optimization of ventilation settings<sup>2</sup>. Observing the arterial or etCO<sub>2</sub> difference respective gradient over a period of time can provide important information, related to either improved or worsening patient clinical status<sup>3</sup> and thus support increased patient safety. Today, capnography monitoring has been increasingly used in operating rooms, intensive care units and emergency departments to indicate incorrect intubation and to monitor cardiopulmonary resuscitation effectiveness<sup>4</sup>.

- Rapid continuous measurement of the CO<sub>2</sub> partial pressure in the breathing gas
- Measurement of etCO<sub>2</sub>
- Monitoring of etCO<sub>2</sub> with upper and lower alarm limits
- Determining the CO<sub>2</sub> production and serial dead space volume

**Convenient** – The disposable CO<sub>2</sub> cuvette completes the portfolio of disposable ventilation accessories for Dräger intensive care ventilators. Simply dispose the used cuvette along with the entire disposable breathing circuit to reduce dismantling time.

**Economic** – The Dräger disposable CO<sub>2</sub> cuvette does not require time and money consuming sterilization protocols. In addition, the patented design of the disposable cuvette delivers the same high quality in performance as the reusables.

**Precise** – The Dräger mainstream CO<sub>2</sub> sensors provide a clear, accurate capnogram. No delay in rise and fall times of gas composition changes.

**Compatible** – Sensor and cuvettes fit the Dräger intensive care ventilators Evita 2 dura, Evita 4 edition, Evita XL (6871500) and Evita Infinity® V500 (6871950)\*.



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The CO<sub>2</sub> cuvettes are lightweight and color coded for easy identification



MT-0986-2007

Dräger mainstream CO<sub>2</sub> sensor continuously measures etCO<sub>2</sub>

1) Bongard F, Sue D.: Pulse oximetry and capnography in intensive and transitional care units. West J. Med. 1992 Jan; 156(1): 57-64

2) St. John RE.: Exhaled gas analysis: technical and clinical aspects of capnography and oxygen consumption. Crit Care Nurs Clin N Am. 1989; 20:363-374

3) St. John RE.: End-tidal carbon dioxide monitoring. Crit Care Nurs Vol 23, No. 4, August 2003; 83-88

4) AARC Guideline: Capnography/Capnometry during Mechanical Ventilation-2003 revision and update: Respiratory Care, May 2003 Vol. 48 No. 5

5) Behende et al.: Validity of a disposable and end-tidal CO<sub>2</sub> detection in verifying endotracheal tube placement in infants and children. Ann Erg Med 1992 31:142-5

\*Not all products are available worldwide.

## TECHNICAL DATA

### DRÄGER CO<sub>2</sub>-MAINSTREAM SENSOR

Resolution	1 mm Hg or 0.1 Vol.% or 0.1 kPa
Measuring range etCO <sub>2</sub>	0 to 100 mm Hg 0 to 13.3 Vol.% 0 to 13.3 kPa
Initialization time	max. 3 minutes
CO <sub>2</sub> accuracy	at 0 to 40 mm Hg ± 2 mm Hg at 0 to 100 mm Hg ± 5% of measured value
Sensor specifications	Sensor weight: 30 g Dimensions: 60 mm (H) x 30 mm (W) x 25 mm (D) Cable length: 2.25 m - 2.50 m
Ambient conditions during operation (6871500):	Temperature: 15 to 40° C Air pressure: 670 to 1200 hPa Humidity: 10 to 100 % (no condensation)
Ambient conditions during operation (6871950):	Temperature: 10 to 40° C Air pressure: 570 to 1100 hPa Humidity: 5 to 95% (no condensation)
Material CO <sub>2</sub> sensor / lead (6871500)	Polyurethane
Material CO <sub>2</sub> sensor / lead (6871950)	Polysulphone / Polyurethane

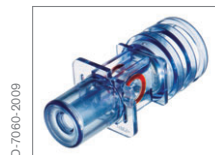
### DRÄGER CO<sub>2</sub>-CUVETTES

	Type	Resistance	Deadspacevolume	Order number
CO <sub>2</sub> cuvette	reusable	0,4 mbar	<7 ml	6870279 adults (1 piece)
		3,0 mbar	<5 ml	6870280 pediatric (1 piece)
	disposable	0,32 mbar	<7 ml	MP01062 adults (10 pcs.)
		2,4 mbar	<4,5 ml	MP01063 pediatric (10 pcs.)
Sensor				6871500 (1 piece)* 6871950 (1 piece)**

\* Fits to Evita 2 dura, Evita 4 edition and Evita XL  
\*\* Fits to Evita Infinity V500



CO<sub>2</sub> cuvette,  
reusable, adults



CO<sub>2</sub> cuvette,  
reusable, pediatric



CO<sub>2</sub> cuvette,  
disposable, adults



CO<sub>2</sub> cuvette,  
disposable, pediatric

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Dräger Medical AG & Co. KG is  
certified according to ISO 13485,  
ISO 9001 and Annex II.3 of Directive  
93/42/EEC (Medical devices).