Dräger CO_2 cuvettes and mainstream sensors

Dräger offers a wide range of CO_2 monitoring accessories including dedicated reusable and disposable CO_2 cuvettes as well as mainstream CO_2 sensors to improve patient safety in a convenient way.

The Dräger mainstream CO_2 sensors offer non-invasive measurement of etCO_2 with a rapid response CO_2 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[3]. Dräger offers a complete portfolio of CO_2 cuvettes for adults and infants. The variety of CO_2 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[1]. It can be used to assess changes in ventilation, pulmonary perfusion and metabolism to support optimization of ventilation settings[2]. Observing the arterial or etCO_2 difference respective gradient over a period of time can provide important information, related to either improved or worsening patient clinical status[3] 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 intuba-tion and to monitor coardiopulmonary resuscitation effectiveness[4][5].

- Rapid continuous measurement of the CO_2 partial pressure in the breathing gas
- Measurement of etCO_2
- Monitoring of etCO_2 with upper and lower alarm limits
- Determining the CO_2 production and serial dead space volume

Covenient – The disposable CO_2 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_2 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_2 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)*.

The CO_2 cuvettes are lightweight and color coded for easy identification

Dräger mainstream CO_2 sensor continuously measures etCO_2

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_2 detection in verifying endotracheal tube placement in infants and children. Ann Erg Med 1992 31:142-5

*Not all products are available wordwide.

TECHNICAL DATA

DRÄGER CO_2-MAINSTREAM SENSOR

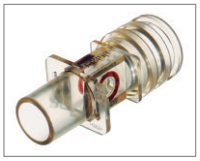
Resolution	1 mm Hg or 0.1 Vol.% or 0.1 kPa
Measuring range etCO_2	0 to 100 mm Hg 0 to 13.3 Vol.% 0 to 13.3 kPa
Initialization time	max. 3 minutes
CO_2 accuracy	at 0 to 40 mm Hg ± 2 mm Hg at 0 to 100 mm Hg ± 5% of measured value
Sensor specifications	Sensor weight: 30 g Dimensions: 60 mm (H) x 30 mm (W) 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_2 sensor / lead (6871500)	Polyurethane
Material CO_2 sensor / lead (6871950)	Polysulphone / Polyurethane

DRÄGER CO_2-CUVETTES

	Type	Resistance	Deadspacevolume	Order number
CO_2 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)**

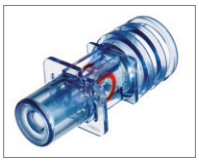
* Fits to Evita 2 dura, Evita 4 edition and Evita XL
** Fits to Evita Infinity V500

D-7062-2009



CO_2 cuvette,
reusable, adults

D-7060-2009



CO_2 cuvette,
reusable, pediatric

D-7059-2009

CO_2 cuvette,
disposable, adults

D-7061-2009

CO_2 cuvette,
disposable, pediatric

90 51 010 | 09.10-4 | Marketing Communications | LSL | LE | Printed in Germany | Chlorine-free – environmentally compatible | Subject to modifications |

HEADQUARTERS
Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany

www.draeger.com

REGION EUROPE CENTRAL AND EUROPE NORTH
Dräger Medical GmbH
Moislinger Allee 53–55
23558 Lübeck, Germany
Tel +49 451 882 0
Fax +49 451 882 2080
info@draeger.com

REGION EUROPE SOUTH
Dräger Médical S.A.S.
Parc de Haute
Technologie d'Antony 2
25, rue Georges Besse
92182 Antony Cedex, France
Tel +33 1 46 11 56 00
Fax +33 1 40 96 97 20
dlmfr-contact@draeger.com

REGION MIDDLE EAST, AFRICA, CENTRAL AND SOUTH AMERICA
Dräger Medical GmbH
Branch Office Dubai
Dubai Healthcare City, P.O. Box 505108
Dubai, United Arab Emirates
Tel + 971 436 24 762
Fax + 971 436 24 761
contactuae@draeger.com

REGION ASIA / PACIFIC
Draeger Medical
South East Asia Pte Ltd
25 International Business Park
#04-27/29 German Centre
Singapore 609916, Singapore
Tel +65 6572 4388
Fax +65 6572 4399
asia.pacific@draeger.com

REGION NORTH AMERICA
Draeger Medical, Inc.
3135 Quarry Road
Telford, PA 18969-1042, USA
Tel +1 215 721 5400
Toll-free +1 800 437 2437
Fax +1 215 723 5935
info.usa@draeger.com

Manufacturer:
Dräger Medical GmbH
23542 Lübeck, Germany
The quality management system at Dräger Medical GmbH is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 93/42/EEC (Medical devices).