

O₂-Sensors Consumables and Accessories

O₂ Sensors which you can rely on. Providing the organism with sufficient oxygen is the most important task when ventilating patients. Oxygen sensors clearly play a vital role here, as they continuously measure and monitor the oxygen content of the breathing gas, an essential respiratory parameter.



Benefits

O₂ sensors

Oxygen sensors play a vital role in the monitoring of ventilated patients, as they measure and monitor the oxygen content of the respiratory gas on a continuous basis. The importance of this parameter is reflected in the number of guidelines and recommendations that exist. Dräger oxygen sensors comply with relevant national and international requirements. Furthermore, they have been extensively tested and adapted to work perfectly with Dräger devices and systems. This is particularly important for minimising the risk to patients and users.

Dräger Originals

Our sensors have been specially developed for use with our anaesthetic and ventilation devices, and have coordinated properties, thus ensuring the highest possible levels of accuracy, durability, reliability and functionality. Our Originals provide high quality standards for your working environments and workflows.

Dräger O₂ sensors offer:

- 100% compatibility with Dräger devices and systems
- High measurement accuracy with above-average quality standards and comprehensive testing
- Compliance with relevant national and international requirements

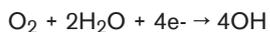
Benefits

O₂ sensor capsule

The electrochemical O₂ sensor capsule was introduced to the market in 1977 in as a means of measuring and monitoring the inspiratory O₂ concentration in anaesthesia and respiratory devices. Since then, over **1.6 million*** units have been produced and delivered to locations around the world. This sensor is still being used, for example in the Fabius range, the Babylog 8000+ and the Oxydig. O₂ sensor capsules have a useful life of over 12 months.

Design and operation:

The Dräger O₂ sensor capsules are electrochemical instruments for measuring O₂ partial pressure. They operate on the principle of a galvanic cell. The gas mixture to be monitored diffuses through a plastic membrane into the sensor's liquid electrolyte. The electrolyte contains a working electrode (gold electrode) and a counter-electrode (lead electrode). The electrolyte and the electrode materials are carefully selected to electrochemically reduce the oxygen to be monitored at the working electrode.



Simultaneously, the counter-electrode is oxidised:



This results in a current that flows through the sensor, which is proportional to the O₂ partial pressure in the gas mixture being monitored.

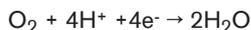
Benefits

OxyTrace Sensor range

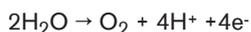
The product range includes three sensors for different uses, with the OxyTrace A being used with the Zeus, the OxyTrace VE with the Savina range and the OxyTrace Incu with the Caleo. The sensors are made from the smallest sensor components, in "XS" format, and measure only 20 mm in diameter and 34 mm in height. The useful life of OxyTrace sensors is over 30 months, and they have been proven to be technically stable since their first introduction on to the market in 1999.

Design and operation:

OxyTrace sensors are electrochemical non-consumable oxygen sensors that work according to the principle of an oxygen pump. There is a measuring electrode, a reference electrode and a counter-electrode in the electrolyte. These are electronically operated using a potentiostat switch so that oxygen is reduced at the measuring electrode:



Simultaneously, water is electrolysed at the counter-electrode:



Overall, the oxygen that arrives at the measuring side of the sensor is then returned at the counter-electrode side, without the sensor being changed. This produces an electrical current that, depending on the gas influx, is proportional to the O₂ concentration in the gas being monitored.

Oxycell O₂ sensor

The Dräger Oxycell sensor is from the newest generation and contains the smallest sensor elements in "XXS" format, with a very rapid response time of under 1 second. These sensors work in the same way as OxyTrace sensors, according to the oxygen pump principle.

The integration of Oxycell O₂ sensors into planned and new generations of devices, for example in the field of heat therapy in the Dräger IncuWarmer Babyleo® TN500, is setting the course for the trend towards miniaturised and non-consumable sensors. Their tested useful life is currently 24 months.

Technical Data

	O₂ sensor capsule	OxyTrace INCU	OxyTrace A / VE	Oxycell O₂ Sensor
Measuring range	0 to 100 Vol. % oxygen	0-80 Vol% O ₂	0 to 100 Vol. % oxygen	0 to 100 Vol. % oxygen
T10-90 response time	20 sec.	15 sec.	5 sec.	< 800 ms
Operating temperature	15 to 40 °C	18 to 45 °C	0 to 50 °C	5 to 50 °C
Storage temperature	-20 to 40 °C	-20 to 50 °C	-20 to 50 °C	-20 to 50 °C
Dimensions	Diameter 28 mm, height 22 mm	Diameter 20 mm, height 33.6 mm	Diameter 20 mm, height 33.6 mm	Height 15 mm, width 20.4 mm, length 31 mm

Ordering Information

O ₂ sensor capsule (Evita® XL, Evita® 4 edition, Evita® 2 dura, Babylog® 8000 plus, Fabius Family)	6850645
OxyTrace INCU (Caleo®)	MX01050
OxyTrace A (Zeus® Infinity® Empowered)	6871028
OxyTrace VE (Savina Family)	MX01049
Oxycell O ₂ sensor TN (Babyleo® TN500)	6873065
Oxycell O ₂ sensor A (Atlan® A300/A300 XL)	6872666

Notes

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