



**High Quality O₂ Gas Sensors for
Multiple Applications**

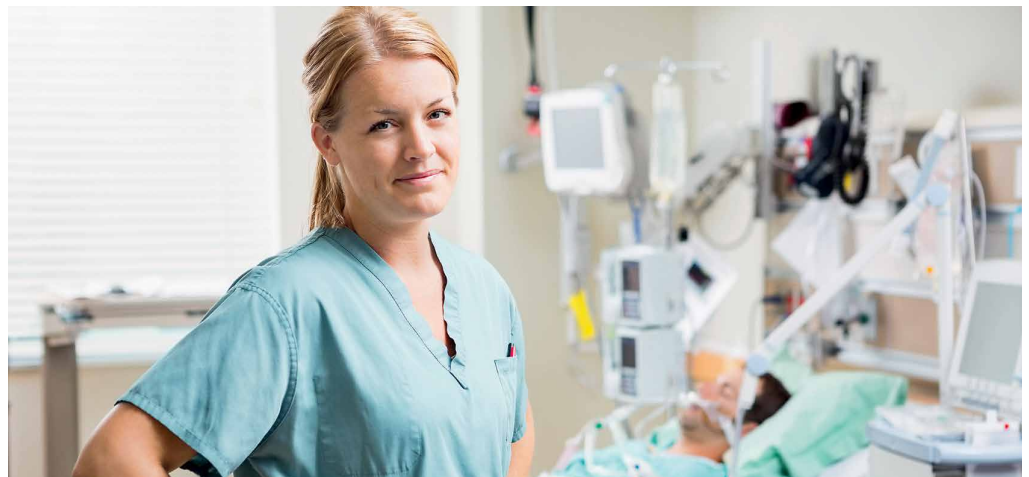
The EnviteC Commitment to You: Quality, Flexibility, Accuracy

“We keep your medical devices
operating at their best.”



Leading medical solutions for oxygen sensing

- Respirators
- Anesthesia systems
- Life support machines





Health
made in Germany

For an EnviteC product this means:
“Advanced technology made in Germany”.



From standard sensors to customized sensors

EnviteC has been developing and manufacturing highly specialized products for medical applications for more than twenty years now. As part of the Honeywell International Inc. technology group, one of the largest sensor manufacturers worldwide, EnviteC trusts in the quality of advanced production methods in its home country – “Health made in Germany”.

The result is a broad array of measuring and monitoring systems for determining oxygen concentrations that go beyond mere standard solutions. Experienced EnviteC engineers analyze our customer requirements. This input is used for the most diverse standard and OEM applications, and ongoing support is provided right up to the final integration in the solution. EnviteC designs customized sensors characterized by a maximum possible degree of precision, for example with different signal levels or temperature compensation elements.

All our sensors share the same extraordinary quality, durability and longterm availability. Flexible production processes at our Wismar site lay the foundation for reliable deliveries to leading medical and industrial companies around the globe. Every sensor which leaves the Wismar facility undergoes one hundred percent final quality controls.

The medtech market is constantly evolving – and EnviteC is no exception. EnviteC’s research and development activities are consistently aligned to customer and market needs. We identify and optimize sustainable product solutions: amongst other things, we are actively involved in the development of lead-free oxygen sensors.



Leading medical solutions for oxygen monitoring

- for gas supply systems
- for incubators
- for ventilators

Use the benefits:

Quality

- Low cross interferences from common components of breathing gases
- Industry-leading life time
- Highest manufacturing standards

Flexibility

- Customized sensor design
- Simple analysis of sensor signal
- Flexible response times



Accuracy

- Linearity of sensor signal between 0 to 100% oxygen better than 3% relative
- Low signal drift (< 1% volume O₂/month)
- Built-in NTC compensation

Ongoing Research

- Lead-free technology
- Clinical studies
- Multiple inventions
- Long-term tests

| | Oxygen sensor | Output signal in air | Response time T 90 % | Nominal sensor lifetime | Electrical interface |
|---|---------------|--|-------------------------|--------------------------------------|---------------------------------|
|  | OOM101 | 46 µA ... 66.7 µA no temperature compensation | < 12 s | ≥ 500 000 % volume oxygen hours | gold plated slip rings |
|  | OOM102 | 9 mV ... 14 mV temperature compensated | < 12 s | ≥ 1 000 000 % volume oxygen hours | 3 pin Molex® connector |
|  | OOM102-1 | 9 mV ... 14 mV temperature compensated | < 12 s | ≥ 1 000 000 % volume oxygen hours | mono phone Jack (3.5 mm) |
|  | OOM103 | 9 mV ... 13 mV temperature compensated | < 5 s | ≥ 500 000 % volume oxygen hours | 3 pin Molex® connector |
|  | OOM103-1 | 9 mV ... 13 mV temperature compensated | < 5 s | ≥ 500 000 % volume oxygen hours | mono phone Jack (3.5 mm) |
|  | OOM103-1M | 9 mV ... 13 mV temperature compensated | < 5 s | ≥ 500 000 % volume oxygen hours | Switchcraft® mini power Jack |
|  | OOM104 | 24 µA ... 32 µA no temperature compensation | < 12 s | ≥ 750 000 % volume oxygen hours | gold plated slip rings |
|  | OOM105 | Teledyne® TED range | < 5 s | ≥ 500 000 % volume oxygen hours | Molex® plug 4P4C |
|  | OOM106 | 9 mV ... 13 mV temperature compensated | < 12 s | ≥ 1 000 000 % volume oxygen hours | 3 pin Molex® connector |
|  | OOM107 | 170 µA ... 230 µA no temperature compensation | < 12 s | ≥ 250 000 % volume oxygen hours | gold plated slip rings |

| | Oxygen sensor | Output signal in air | Response time T 90 % | Nominal sensor lifetime | Electrical interface |
|---|--------------------------|---|-------------------------|-------------------------------------|---|
|  | OOM107-2 | 170 µA ... 230 µA no temperature compensation | < 12 s | ≥250 000 % volume oxygen hours | flying leads with pin-connectors |
|  | OOM109 | 9 mV ... 13 mV temperature compensation | < 360 ms | ≥200 000 % volume oxygen hours | 3 pin molex® |
|  | OOM109-LF2 | 9 mV ... 13 mV temperature compensation | < 360 ms | ≥200 000 % volume oxygen hours | 3 pin molex® |
|  | OOM110 | 10 mV ... 12 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | modular Jack 6P4C |
|  | OOM111 | 11 mV ... 13 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | stereo phone Jack (3.5 mm) |
|  | MySign® O with OOM111 | 11 mV ... 13 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | stereo phone Jack (3.5 mm) |
|  | OOM112 | 25 mV ... 38 mV temperature compensated | < 17 s | ≥500 000 % volume oxygen hours | gold plated slip rings |
|  | OOM113 | 9 mV ... 13 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | Molex® plug 4P4C |
|  | OOM201 | 24 µA ... 35 µA (Dual Cathode) no temperature compensation | < 12 s | ≥500 000 % volume oxygen hours | gold plated slip rings |
|  | OOM202 | 13 mV ... 16 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | 3 pin molex® |
|  | OOM202-1 | 13 mV ... 16 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | mono phone Jack (3.5 mm) |
|  | OOM202-2 | 9 mV ... 13 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | flying leads with 3 pin female molex® connector |
|  | OOM202-2S | 9 mV ... 11.5 mV temperature compensated | < 12 s | ≥1 000 000 % volume oxygen hours | AMP MATE-N-LOK/ 2 circuit |
|  | OOM204 | 9 mV ... 13.5 mV (dual cathode) temperature compensated | < 12 s | ≥500 000 % volume oxygen hours | 3 pin molex® |

Oxygen Sensors General Specifications

| | |
|---|--|
| Measurement range | 0% ... 100% oxygen (at atmospheric pressure) |
| Accuracy | Meets ISO 80601-2-55 requirements |
| Repeatability | < 1% volume O ₂ (at constant temperature and pressure) |
| Zero offset | < 0.5% volume O ₂ in 100% N ₂ , applied 5 minutes |
| Linearity error | < 3% relative |
| Cross interference | Meets ISO 80601-2-55 requirements |
| Influence of humidity | -0.03% rel. per % RH at 25 °C |
| Pressure range | 0.6 to 2 bar (ppO ₂ 0 ... 1250 mbar O ₂) |
| Influence of pressure | proportional to change in oxygen partial pressure |
| Influence of mechanical shock | < 1% relative after a fall from 1 m |
| Operating temperature | 0 °C ... 50 °C |
| Temperature compensation | built-in NTC compensation (depends on type) |
| Effect of temperature compensation (steady state) | between +25 °C and +40 °C: 3% relative error between 0 °C and +50 °C: 8% relative error |
| Operating humidity | 0% ... 99% RH non-condensing |
| Long term output drift | < 1% volume oxygen per month typically < -15% relative over lifetime |
| Storage temperature | -20 °C ... +50 °C |
| Recommended storage | +5 °C ... +15 °C |
| Recommended load | ≥ 10 kOhms |
| Warm-up time | < 30 minutes, after replacement of sensor |
| Weight | approximately 28 grams approximately 43 grams OOM107 series |

All specifications are applicable at standard conditions:
1013 hPa, 25 °C dry ambient air



EnviteC is maintaining a quality management system,
which meets the requirements according to
EN ISO 9001 and EN ISO 13485.



For suitable accessories and sensors please refer
to the EnviteC Cross Reference List under
www.EnviteC.com and in the Apple App Store under
EnviteC XRL as free download.



EnviteC MySign[®] O: High-performance handheld
monitor from a new family of devices for clinical,
emergency and home ventilation applications.

CE-compliant / FDA-cleared

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