

# OOMLF103-1 Oxygen Sensor

## Oxygen Sensor | Lead-Free

### From standard sensors to customized sensors

Experienced EnviteC engineers analyze customer requirements. This input is used for different 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 high degree of precision, for example with different signal levels or temperature compensation elements.

### Step into the lead-free future

With innovative technology and engineering expertise, Honeywell has developed a patent-pending, lead-free oxygen sensor series. Honeywell lead-free O<sub>2</sub> sensors are a one-to-one, drop-in replacement - no application redesign needed. This innovation was driven by European regulations to fulfill RoHS regulatory requirements, the usage of lead-containing oxygen sensors beyond July 2021 will not be permitted for medical applications.

### Intended use

The EnviteC Medical Oxygen Sensors are intended as oxygen sensing component of an oxygen analyzer that measures oxygen concentration in breathing gas mixtures in the following applications:

Sensing device for oxygen in

- medical ventilators
- anesthesia machines
- incubators
- control device of oxygen concentrators

The use is limited to system monitoring. The sensors are not suited for breath by breath analysis of breath gases. Please refer to the Instructions for Use. If the sensor is intended to replace the original oxygen-sensing component of an oxygen analyzer, consult the EnviteC XRL Cross Reference List for selecting the appropriate sensor.

### Additional information

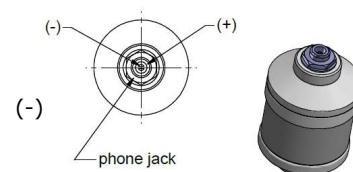
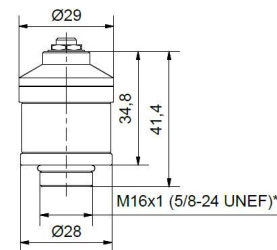
The Instructions for Use as well as the EnviteC XRL Cross Reference List are available under [www.envitec.com](http://www.envitec.com)



### Advantages

- Compliant with European MDD (CE certification)
- Compliant to EU RoHS Directive 2011/65/EU as amended by Directive 2015/863
- Meets ISO 80601-2-55
- Designed and manufactured according to EN ISO 13485
- Higher accuracy and reliability in response
- Resistant to N<sub>2</sub>O
- Enhanced signal stability and product quality
- Short delivery times
- Technical support
- Made in Germany

### Mechanical drawing (dimensions in mm)



General tolerances ISO 2768-c

\*Intermediate thread: Metric/Unified Extra Fine

# OOMLF103-1 Oxygen Sensor Technical Specifications

CHARACTERISTIC	MEASURE
MEASUREMENT PRINCIPLE	Galvanic full cell
MEASUREMENT RANGE	0 % ... 100 % oxygen
OUTPUT IN AMBIENT AIR	9 to 13 mV
ELECTRICAL INTERFACE	3.5 mm mono phone Jack
ACCURACY	meets ISO 80601-2-55 requirements
REPEATABILITY	< 1% vol. O <sub>2</sub> @ constant temperature and pressure
LINEARITY ERROR	< 3 % relative
RESPONSE TIME	< 7sec. to 90 % of final value
ZERO OFFSET VOLTAGE	< 0,5% volumen O <sub>2</sub> in 100 % nitrogen applied after 5 min
CROSS INTERFERENCE	meets ISO 80601-2-55 requirements (Nitrous Oxide, Helium, Isoflurane, Desflurane, Servoflurane, and Xenon tested)
INFLUENCE OF HUMIDITY	- 0.03% rel. per % RH at 25°C
PRESSURE RANGE	0.6 bar ... 2 bar (ppO <sub>2</sub> 0 ... 1250 mbar O <sub>2</sub> )
INFLUENCE OF PRESSURE	proportional to change in oxygen partial pressure
INFLUENCE OF MECHANICAL SHOCK	< 1% relative after a fall from 1m
OPERATING TEMPERATURE	0°C to 50°C
TEMPERATURE COMPENSATION	Built-in NTC compensation
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% vol. oxygen per month in air averaged about 12 month
STORAGE TEMPERATURE	-20°C to +50°C
RECOMMENDED STORAGE	+5°C to +15°C
RECOMMENDED LOAD	>100 kOhms
WARM-UP TIME	< 30 minutes, after replacement of sensor
WEIGHT	Approximately 23 grams
EXPECTED OPERATING LIFE	<2 years @standard conditions
RESTRICTION OF HAZARDOUS SUBSTANCES	Compliant to EU RoHS Directive 2011/65/EU as amended by Directive 2015/863
PART NUMBER	tbd

All specifications are applicable at standard conditions: 1013 hPa, 25 °C dry ambient air  
 Patent pending, for patent information, see <http://www.honeywellaidc.com/patents>  
 Technical information is subject to change without notice.

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For more information



For suitable accessories and sensors, please refer to the EnviteC Cross Reference List under [www.envitec.com](http://www.envitec.com)

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