

## General Specifications for Industry **Lead-free** Oxygen Sensors (OOIXXX-LF)

**This is a preliminary document. It is not validated and only for internal use!**

Measurement Principle	Galvanic Fuel Cell
Measurement range	0 % ... 100 % oxygen (at atmospheric pressure)
Output in ambient air	7 mV ... 13 mV
Electrical interface	Depends on customer need (for example 3.5 mm mono phone Jack or 3-PIN Molex)
Repeatability	< 1 % volume O <sub>2</sub> at constant temperature and pressure
Linearity error	< 3 % relative
Response time	< 6 s to 90 % of final value
Zero offset voltage	< 40 µV in 100 % nitrogen, applied for 5 min
Cross interference	< 0.1 % vol. O <sub>2</sub> response to: 15 % CO <sub>2</sub> balance N <sub>2</sub> ; 10 % CO balance N <sub>2</sub>
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 1 m
Operating temperature	0 °C ... +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 ... +50 °C
Recommended storage	+5 °C ... +15 °C
Recommended load	≥ 100 kOhms
Warm-up time	< 30 minutes, after replacement of sensor
Weight	approximately 23 grams
Expected Operating Life	< 3 years @ standard conditions
Part number	XXX
Restriction of hazardous substances	Lead-free meets RoHS 2 (Directive 2011/65/EU)

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

For patent information, see <http://www.honeywellaidc.com/patents>

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