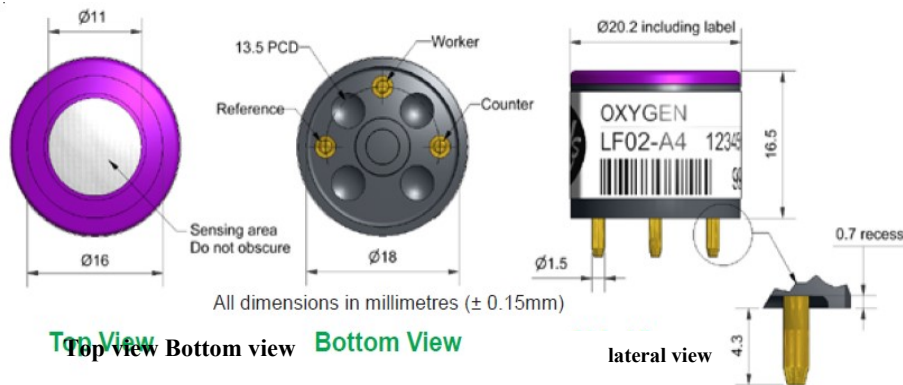


## LFO2-A4 Oxygen Sensor 3 electrodes, lead-free



Figure 1 Schematic Diagram of LFO2-A4



### function

<b>Output response linearity</b>	<b>Output(<math>\mu</math>A)</b> in 20.9%O <sub>2</sub> <b>From 20.9% to 0%O<sub>2</sub> t90 time (s)</b> <b>10%O<sub>2</sub> deviation percentage of oxygen</b>	80~130 < 17 < 0.1
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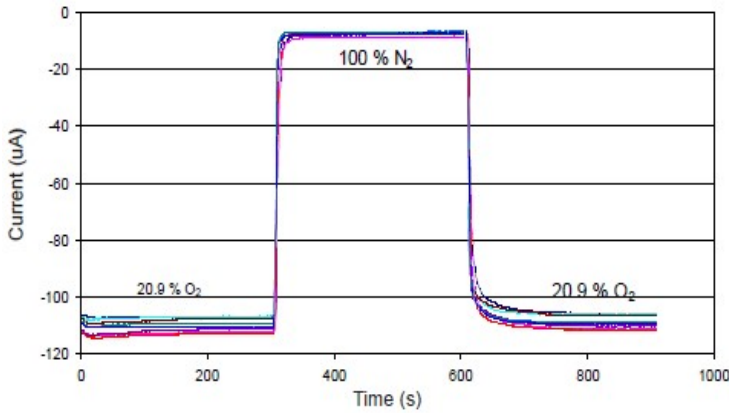
### life span

<b>-20°C sensitivity</b>	<b>(Output at -20°C / Output at 20°C)%</b>	80~90
<b>Sensitivity at 50°C</b>	<b>(output at 50°C/ output at 20°C)%</b>	105~115
<b>Output drift</b>	<b>Change percentage over 3 months</b>	< 1
<b>quality assurance</b>	<b>member of the month</b>	12
<b>working life</b>	<b>Output down to 20.9% Number of months<sub>o</sub> original output 85%</b>	> 60

### key parameter

<b>temperature range</b>	°C	-30~50
<b>pressure limit</b>	kPa	80~120
<b>Humidity range</b>	Continuous relative humidity percentage (0-99% RH for short periods)	5~95
<b>Storage period</b>	Number of months for preservation from 3 to 20°C (must be preserved in a sealed tank, open circuit)	6
<b>bias voltage</b>	mV	-600
<b>diameter</b>	mm (including labels)	20.0
<b>altitude</b>	mm (including foam gasket)	17.4
<b>weight</b>	g	< 6

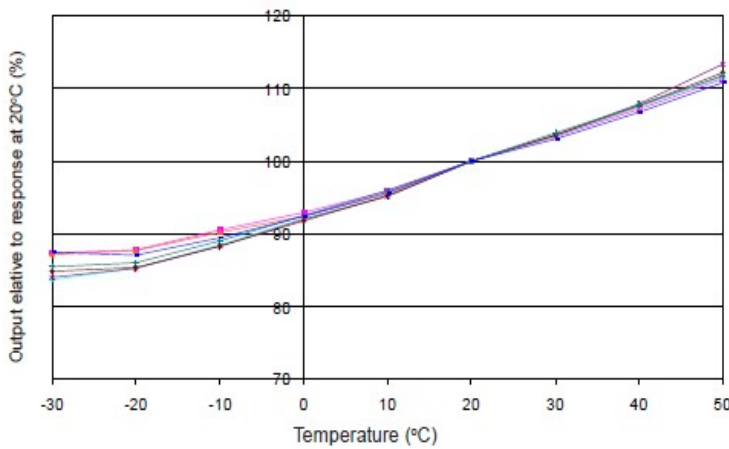
Figure 2 Response to 20.9%O<sub>2</sub>



The sensor responds quickly and repeatedly, returning to the baseline quickly.

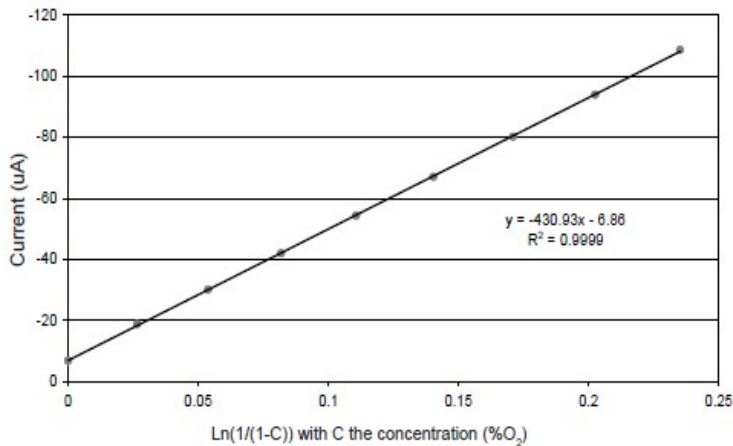
If the sensor is required to respond immediately when the gas detector is started, a bias of 600 mV should be continuously applied to the sensor.

Figure 3 Sensor Sensitivity Temperature Characteristics



The sensor sensitivity temperature characteristics are very consistent and nearly linear, so a simple correction can be made in the software.

Figure 4. Linearity of 20.9% O<sub>2</sub>



Although the signals of the transducers in the oxygen concentration 0 ~ 30% range are almost linear, we have demonstrated that the theory of fitting the output with a function  $K * \ln(1/(1 - C))$  is accurate.

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