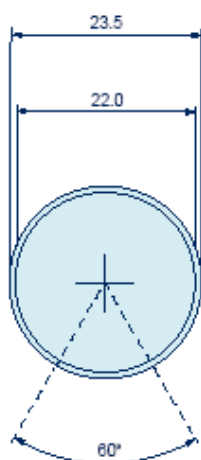
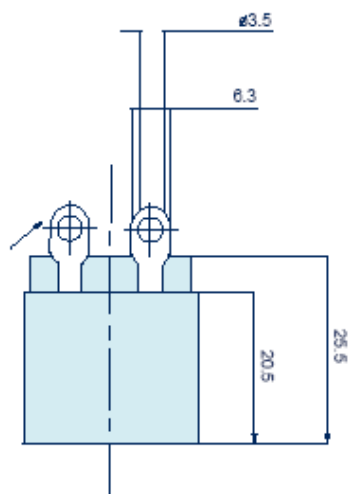


# O<sub>2</sub> SL OXYGEN SENSOR



SL Oxygen sensors overcome the problems associated with standard metal can sensors. They are designed to be directly interchangeable with current sensors incorporated into fixed and portable gas detectors.

Typical applications include the measurement of Oxygen deficiency in confined spaces such as tunnels, mines or chemical plant or for the analysis of combustion gases in flues and chimney stacks.

The SL's shock resistant, leak free design ensures lifetime reliability. High sensor to sensor repeatability and high tolerance to temperature and pressure transients also contribute to highly reliable performance. All SL oxygen sensors have lifetimes of 18 months.

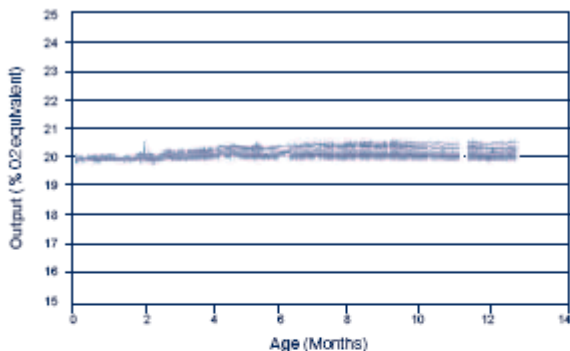
## SPECIFICATION

<b>Operating Principle:</b>	2-electrode cell
<b>Gas Detected:</b>	Oxygen
<b>Measurement Range:</b>	0 – 25% v/v
<b>Maximum Overload:</b>	30% v/v
<b>Expected Operating Life:</b>	18 months in air
<b>Output Signal:</b>	0.42 ± 0.06mA in air
<b>Temperature Range:</b>	-20°C to +50°C
<b>Pressure Range:</b>	1atm ± 10%
<b>Humidity Range (non-condensing):</b>	Continuous: 15-90% RH Intermittent: 0-99% RH
<b>Response Time (T<sup>5</sup> 90):</b>	<10 seconds
<b>Pressure Co-Efficient:</b>	<±0.003% of signal per mBar
<b>Temperature Co-Efficient:</b>	<±0.2% of signal per °C
<b>Long Term Output Drift:</b>	<±2% of signal per month
<b>Repeatability:</b>	<±1% of signal
<b>Linearity:</b>	Non-Linear 1.7818*(ln(1/(1-(%O <sub>2</sub> /100)))
<b>Recommended Load Resistor:</b>	47Ω
<b>Bias Voltage:</b>	Not required

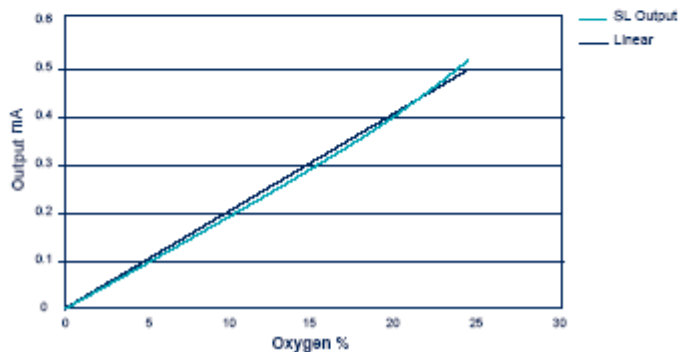


# O<sub>2</sub> SL OXYGEN SENSOR

Oxygen SL Lifetest (temperature corrected)



Oxygen SL Linearity



## Intrinsic Safety Data

**Maximum at 100% v/v Oxygen:** 6.4mA

**Maximum o/c Voltage:** 0.9V

**Maximum s/c Current:** 500mA

## Physical Specification

**Weight:** 32g

**Orientation:** Any

## Storage Life:

6 months in sealed container

## Storage Conditions:

10-20 °C, 45-75% RH in clean air

## Warranty Period:

12 months from date of despatch

**Part Number:** 2112B4530

## CROSS SENSITIVITY DATA

Note: High concentrations of acid gases (eg. CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>2</sub>) will enhance sensitivity to oxygen. Signal will increase by approximately 0.3% per 1.0% acid gas present.

GAS	CONCENTRATION	TYPICAL O <sub>2</sub> EQUIVALENT
Hydrogen	100%	-9%
Methane	100%	0
Nitrogen Dioxide	25ppm	0

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