

Oxygen Sensor - SL

Operating Performance

Operating Principle	2-electrode cell
Gas Detected	Oxygen
Measurement Range	0-25% v/v
Maximum Overload	30% v/v
Expected Operating Life	18 months in air
Output Signal	0.42 ± 0.06mA in air
Temperature Range	-20°C to +50°C
Pressure Range	1atm ± 10%
Humidity Range (non-condensing)	Continuous: 15-90% RH Intermittent: 0-99% RH
Response Time (T ⁵ ₉₀)	<10 seconds
Pressure Co-Efficient	<±0.003% of signal per mBar
Temperature Co-Efficient	<±0.2% of signal per °C
Long Term Output Drift	<±2% of signal per month
Repeatability	<±1% of signal
Linearity	Non-Linear $1.7818 * (\ln(1/(1-(\%O_2/100))))$
Recommended Load Resistor	47Ω
Bias Voltage	Not required

Intrinsic Safety Data

Maximum at 100% v/v Oxygen	6.4mA
Maximum o/c Voltage	0.9V
Maximum s/c Current	500mA

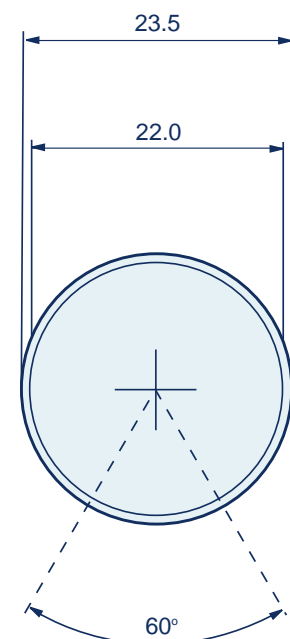
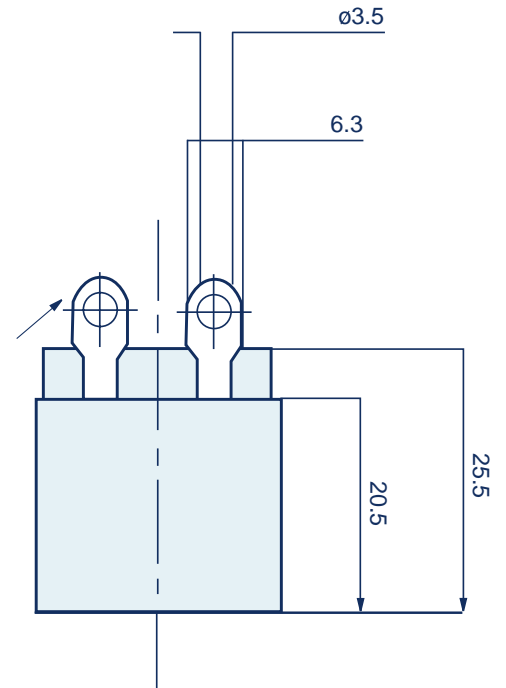
Physical Specification

Weight	TBA
Storage Life	6 months in sealed container
Storage Conditions	10-20°C, 45-75% RH in clean air
Orientation	Any
Warranty Period	12 months from date of despatch

Ordering Details

Part Number	2112B4530
Order From	Sixth Sense 4 Stinsford Road, Poole, Dorset, England BH17 0RZ Tel: (44) 01202 645770 Fax: (44) 01202 665331 e.mail: sensors@sixth-sense.com www.sixthsense.com

Code date: 06/00

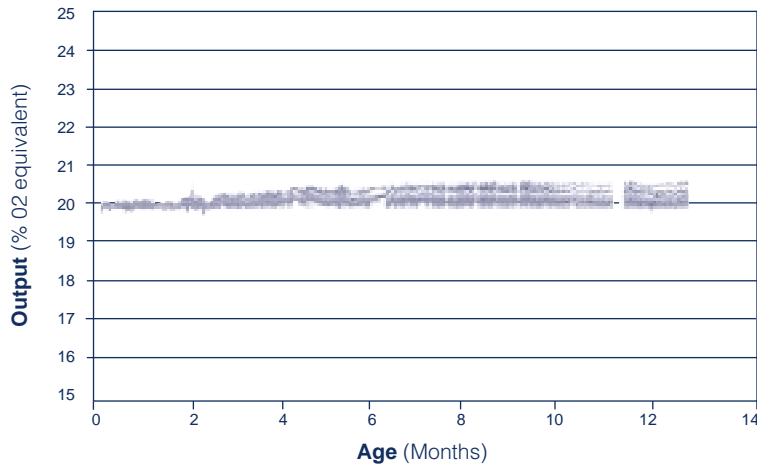




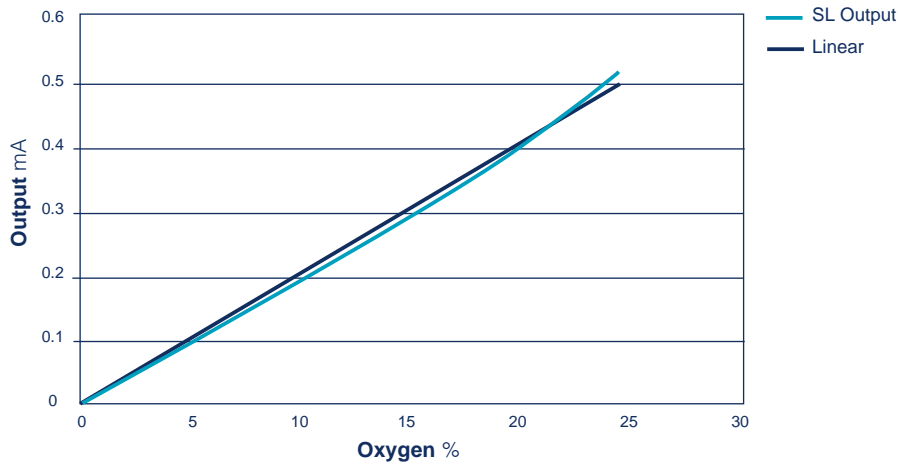
Additional Information

Innovation, Quality and Expertise for Gas Detection.

Oxygen SL Lifetest (temperature corrected)



Oxygen SL Linearity



Cross Sensitivity Data		
Gas	Concentration	Typical O ₂ Equivalent
Carbon Dioxide		
Carbon Monoxide		
Chlorine		
Ethylene		
Hydrogen	100%	-9%
Hydrogen Sulphide		
Methane	100%	0
Nitric Oxide		
Nitrogen Dioxide	25ppm	0
Sulphur Dioxide		

In the interest of product improvement Sixth Sense reserve the right to alter design features and specifications without notice.

***Note:** High concentrations of acid gases (eg.CO₂, SO₂, NO₂) will enhance sensitivity to oxygen.
Signal will increase by approximately 0.3% per 1.0% acid gas present.