

# Product Data Sheet

## Product Datasheet

## CS Oxygen Sensor

### Document Purpose

The purpose of this document is to present the performance specification of the CS oxygen gas sensor.

This document should be used in conjunction with the Operating Principles (OP02) and the Product Safety Datasheet (PSDS 4).

The data provided in this document are valid at 20°C, 50% RH and 1013 mBar for 3 months from the date of sensor manufacture.

Output signal can drift below the lower limit over time. For guidance on the safe use of the sensor, please refer to the Operating Principles (OP02).

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## Performance Characteristics

### MEASUREMENT

<b>Operating Principle</b>	2-electrode electrochemical
<b>Measurement Range</b>	0 - 25% O <sub>2</sub>
<b>Maximum Overload</b>	30% O <sub>2</sub>
<b>Filter</b>	None
<b>Output Signal*</b>	1.10 ± 0.17 mA in air
<b>Response Time (T<sub>95</sub>)*</b>	< 20 seconds
<b>Linearity</b>	Linear

### ELECTRICAL

**Recommended Load Resistor** | 100 Ω

### MECHANICAL

<b>Housing Material:</b>	
Body	Nickel plated steel
Current Collectors	Nickel
<b>Orientation Sensitivity</b>	None

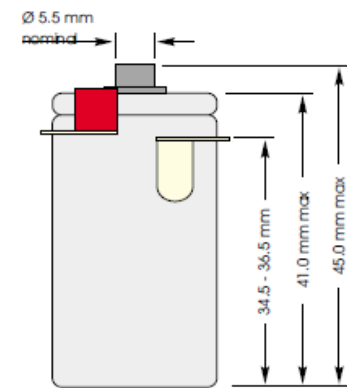
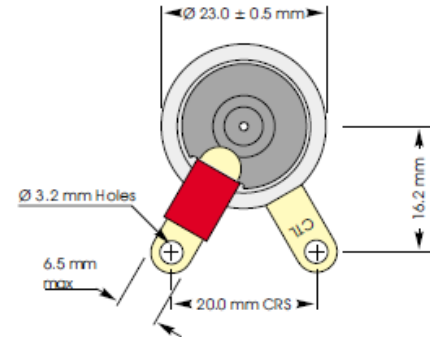
### ENVIRONMENTAL

<b>Operating Temperature Range</b>	-20°C to +50°C
<b>Temperature Coefficient</b>	0.2% signal/°C
<b>Recommended Storage Temp</b>	0°C to 20°C
<b>Operating Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	0.01% signal / mBar
<b>Operating Humidity Range</b>	0 - 99% RH non-condensing

### LIFETIME

<b>Long Term Output Drift</b>	<5% signal loss/year
<b>Expected Operating Life</b>	9 months in air
<b>Storage Life</b>	6 months in CTL container

## Product Dimensions



All dimensions in mm

All tolerances ±0.15 mm unless otherwise stated

**IMPORTANT NOTE:** Connection should be made via PCB sockets only. Soldering to the pins will seriously damage your sensor.

\* Specifications are valid at 20°C, 50% RH and 1013 mBar, using City Technology recommended circuitry. Performance characteristics outline the performance of sensors supplied within the first 3 months. Output signal can drift below the lower limit over time.

### SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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