



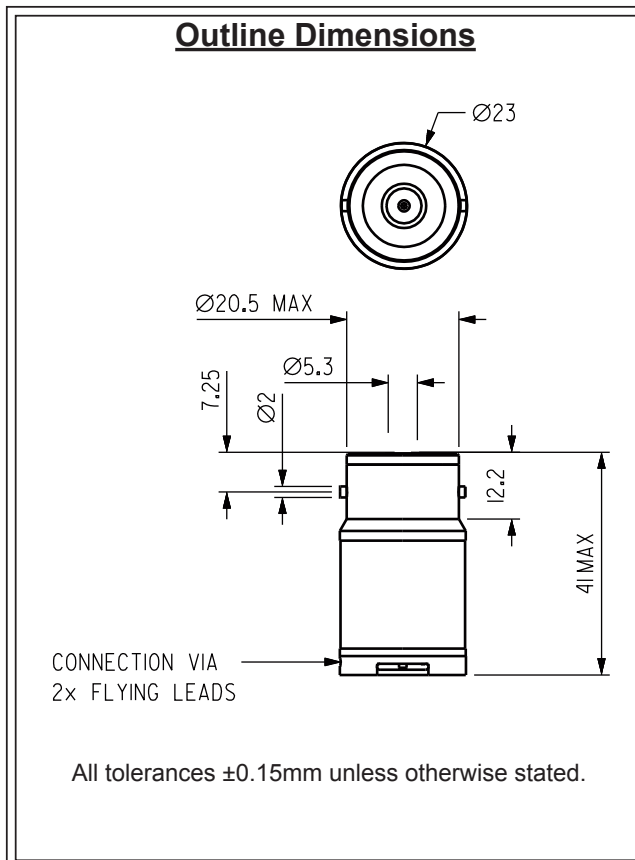
## 2FO Flue Gas CiTiceL®

### Performance Characteristics

<b>Nominal Range</b>	0-25% Oxygen
<b>Max Overload</b>	30% Oxygen
<b>Expected Operating Life</b>	Two years in Air
<b>Output Signal</b>	0.41 ± 0.07mA in Air
<b>T<sub>95</sub> Response Time</b>	<10 seconds (see note)
<b>Temperature Range</b>	-20°C to +45°C
<b>Temperature Coefficient</b>	0.2% signal/°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	<0.02% signal/mBar
<b>Operating Humidity</b>	0 to 99% RH non-condensing
<b>Long Term Output Drift</b>	<5% signal loss/year
<b>Maximum Load Resistor</b>	100Ω
<b>Storage Life</b>	Six months in CTL container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	12 months from date of despatch

**Note:** Signal <0.1% O<sub>2</sub> after 3mins in zero oxygen  
 N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar

### Outline Dimensions



### Linearity

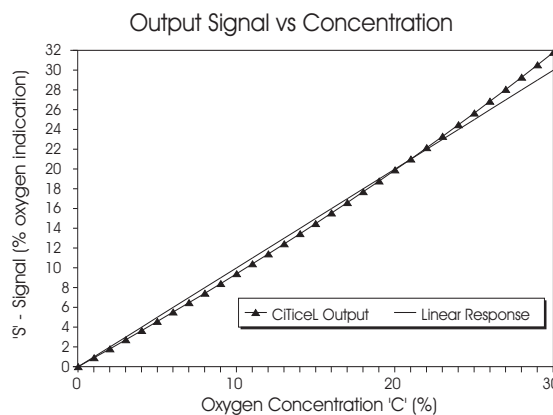
The output signal of an Oxygen CiTiceL follows the relationship:

$$S = K \log_e 1/(1-C)$$

where:

- S** = Output signal;
- C** = Fractional oxygen concentration;
- K** = a constant for the sensor.

For most applications the deviation from a linear response will be insignificant, and no compensation needed. For example, the graph below shows the output of a sensor calibrated in air (20.9% O<sub>2</sub>). In this case the maximum error in the 0-25% range is ≈0.5% at around 10% O<sub>2</sub>.





## Ordering Information

The 2FO Oxygen CiTiceL is available with either long or short flying leads. The ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

2FO Oxygen CiTiceL with standard 110mm flying leads ... AA625-180 2FO Oxygen CiTiceL with 300mm flying leads ... AA625-230
---

### **SAFETY NOTE**

Although this product is not designed for use in life safety applications, if it is used in such applications 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, to ensure that the sensor and/or instrument in which it is used, are operating properly. Failure to carry out such tests may jeopardize the safety of people and property.

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.

Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.