

Performance Characteristics

MEASUREMENT

Operating Principle	2-electrode electrochemical
Measurement Range	0-2 ppm O ₂
Maximum Overload	1000 ppm O ₂
Filter	None
Output Signal	50 - 80 mV in air with a 10Ω load resistor
Response Time (T₉₅)	<20 seconds at 20°C
Purge Time: (Ambient air to <10 ppm)	<6 hours
Linearity	Linear

ELECTRICAL

Recommended Load Resistor | 10 Ω

MECHANICAL

Weight	32 g
Housing Material:	
Body	Nickel plated steel
Current Collectors	Nickel
Orientation Sensitivity	None

ENVIRONMENTAL

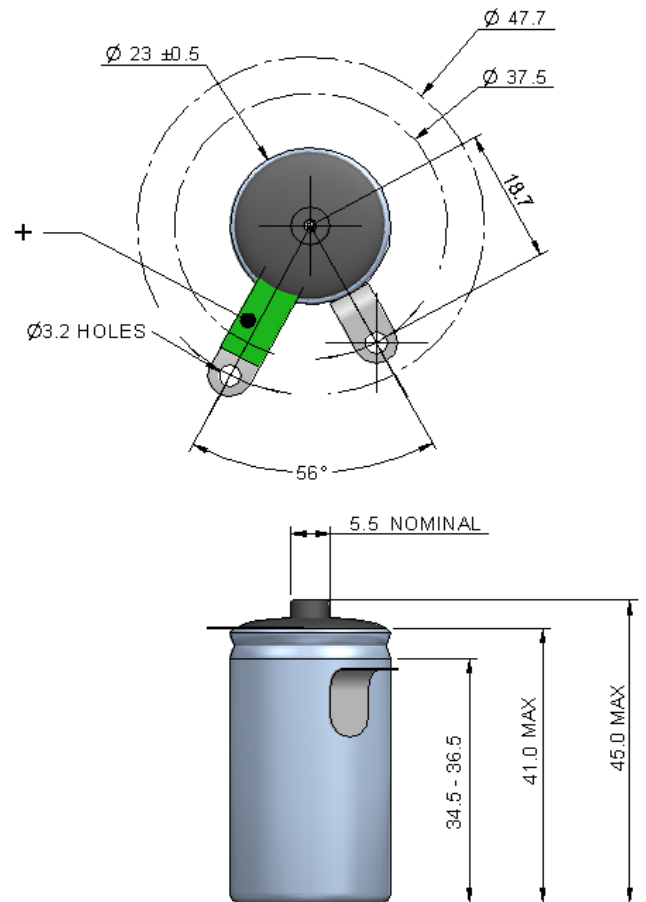
Operating Temperature Range	-20°C to +50°C
Temperature Coefficient	0.2% signal/°C
Recommended Storage Temp	0°C to 20°C
Operating Pressure Range	Atmospheric ± 10%
Operating Humidity Range	0 - 99% RH non-condensing

LIFETIME

Long Term Output Drift	<5% signal loss/year
Expected Operating Life	See note on page 2
Storage Life	6 months in CTL container
Standard Warranty	12 months from date of despatch

N.B. All performance data is based on conditions at 20°C, 50% RH and 1013 mBar

Product Dimensions



All tolerances ± 0.15 mm unless otherwise stated

Operating Life

The operating life of a C/NLL ET Oxygen CiTiceL is proportional to the amount of oxygen the sensor consumes. As City Technology has no knowledge of the operating conditions of any particular application, the company cannot give any guarantee with regard to the life of the sensor. However the following guidelines should be of use:

Under normal operating conditions (i.e. ppm levels) the sensor has a large excess capacity, and there will only be a gradual loss of sensitivity. It is recommended, however, that the sensor is changed every year to maintain the optimum sensitivity.

It is not advisable to use these sensors in ambient air, or to keep them on load in air for long periods. This will considerably decrease the life of the sensor.

Mechanical Design Considerations

The C/NLL ET is designed to measure trace levels of oxygen. It is therefore important to ensure an effective mechanical seal between the face of the sensor and the measured gas flow. Failure to do this may result in ambient oxygen mixing with the measured gas concentration and producing an enhanced sensor output.

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

