

Performance Characteristics

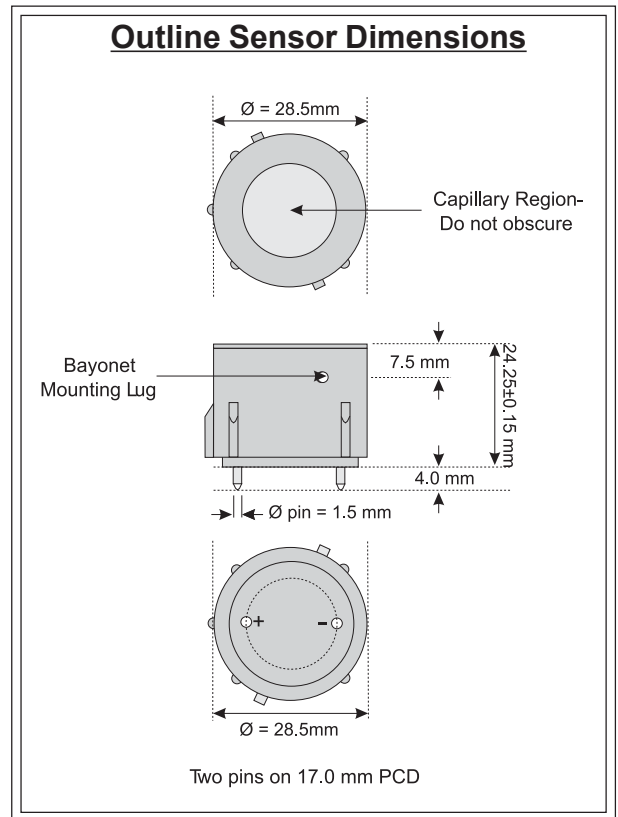
Nominal Range	0-25% Oxygen
Max Overload	30% Oxygen
Expected Operating Life	Two years in Air
Output Signal	0.41 ± 0.05mA in Air
T₉₅ Response Time	<20 seconds
Temperature Range	-20°C to +45°C
Temperature Coefficient	0.2% signal/°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	<0.02% signal/mBar
Operating Humidity	0 to 99% RH non-condensing
Long Term Output Drift	<5% signal loss/year
Maximum Load Resistor	100Ω
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C

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

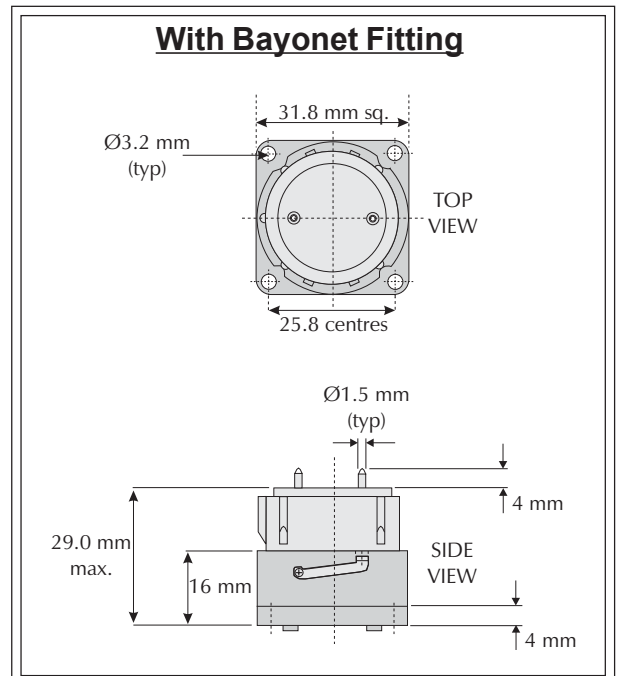
Physical Characteristics

Weight	44 g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

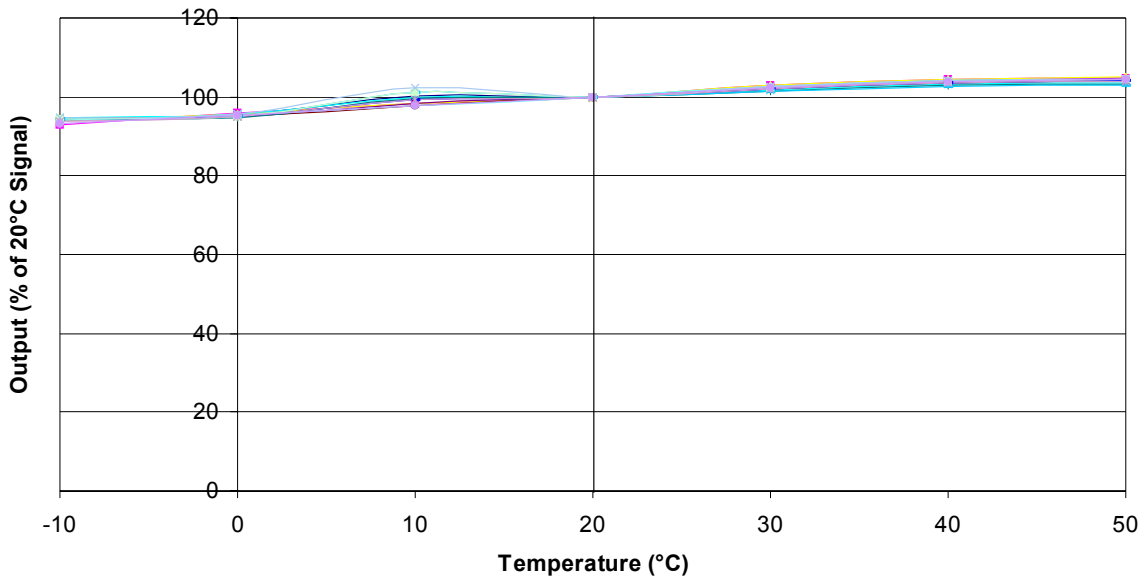
Outline Sensor Dimensions



With Bayonet Fitting



5FO CiTiceL Typical Temperature Coefficient Data



Linearity

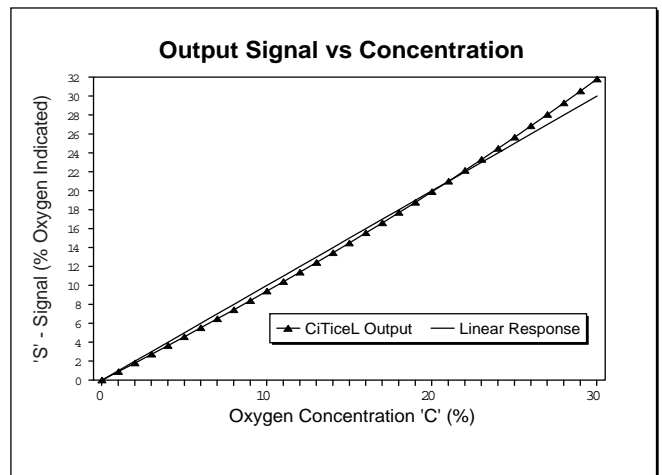
The output signal of an Oxygen CiTiceL follows the relationship:

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

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% O₂). In this case the maximum error in the 0-25% range is ≈0.5% at around 10% O₂.



Cross-sensitivity Data

Gas	Concentration	Balance	%O ₂ equivalent
Hydrocarbons	100%	n/a	0
Methane	100%	n/a	0
Hydrogen	100%	n/a	< -2%
Carbon monoxide	20%	Nitrogen	<-0.5%

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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.