Oxygen MediceL® Specification

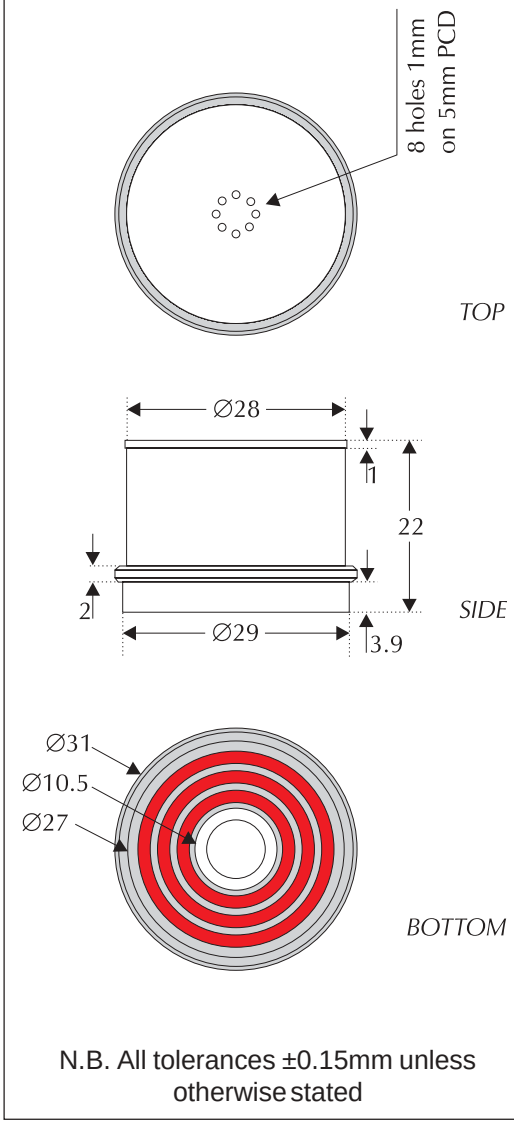
MOX-6 MediceL®

N.B. The specification is based on measurements made with cylinder gases using a flow rate of 100 mls min^{-1}. Conditions at 20°C, 50%RH, and 1013mBar unless otherwise noted.

Performance Characteristics

Output (see circuit)	11-15 mV with 300Ω external load resistance in 209mBar O_2 @20°C
Range	0-1500mBar O_2
Signal in 100% O_2	100±1%
Resolution	1mBar O_2
Expected Operating Life	0.94 x 10^6 % O_2 hours@ 20°C 0.6 x 10^6 % O_2 hours@ 40°C
Operating Temp Range	-20°C to +50°C
Pressure Range	0.5-2.0Bar
Zero signal in N_2 at 20°C	<200 µV
Relative Humidity Range	0 to 99% non- condensing
N_2O Resistance	Resistant to 100% N_2O
Response Time(air to 100% O_2)	T_{90} < 15s
Long Term Output Drift (in 100% O_2)	<5% signal loss/year
Linearity	Linear 0-100% O_2 (see note[1])
Housing Material	White ABS
Packaging	Sealed blister packaging
Cross Sensitivity	Meets EN12598 requirements
Warranty Period	15 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)

Outline Dimensions



N.B. All tolerances ±0.15mm unless otherwise stated

Note 1: Use of a regression coefficient shows a best fit straight line better than 0.9995 when measured through the four data points N_2, 21% O_2, 60% O_2 and 100% O_2.

CE
0088

City Technology Ltd, City Technology Centre, Walton Rd, Portsmouth PO6 1SZ, UK
Tel:+44 23 9232 5511, Fax:+44 23 9238 6611, sensors@citytech.co.uk, www.citytech.com

Oxygen MediceL® Specification

Intended Use

These sensors are designed to be used to monitor the partial pressure of oxygen in anaesthesia, critical care, incubators and general Oxygen monitors.

Stabilisation time

Allow at least 15 minutes to stabilise in instrument before calibration.

Cleaning and Sterilisation

In case of contamination the sensor may be cleaned with distilled water and allowed to dry naturally. The sensor is not suitable for sterilisation by steam or exposure to chemicals such as ethylene oxide or hydrogen peroxide

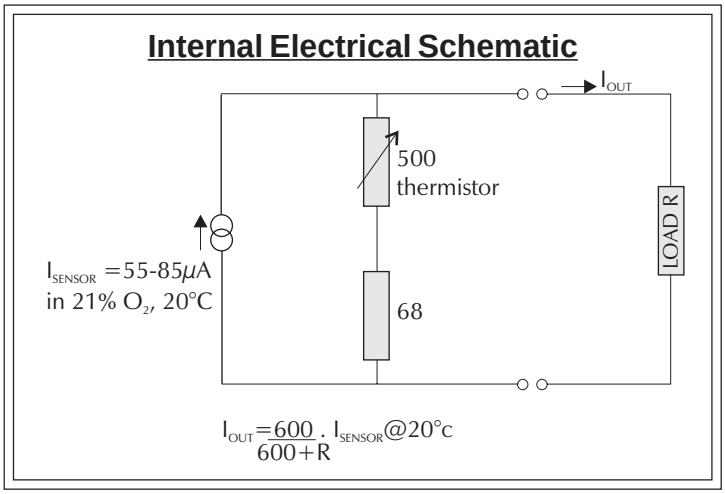
Calibration Interval

These sensors are designed to have minimal drift over their useful lifetime however for maximun accuracy they should be calibrated in 100% Oxygen before use.

Cross-sensitivity

Test Gas	Error (%O_2)
50% He/50% O_2	<1%
80% N_2O/20% O_2	+1 to +1.5%
4% Halothane/28.8% O_2/67.2% N_2O	+1.5% to 2%
5% Sevoflurane/28.5% O_2/ 66.5% N_2O	+1 to +1.5%
5% Enflurane/28.5% O_2/66.5% N_2O	+1.2 to + 1.8%
5% Isoflurane/28.5% O_2/66.5% N_2O	+1.2 to 1.8%
5% CO_2/ 28.5% O_2/66.5% N_2O	<1%

Internal Electrical Schematic



City Technology Ltd, City Technology Centre, Walton Rd, Portsmouth PO6 1SZ, UK
Tel:+44 23 9232 5511, Fax:+44 23 9238 6611, sensors@citytech.co.uk, www.citytech.com