



Environmental Sensors Co.

Oxygen Meter

Model Z-1100

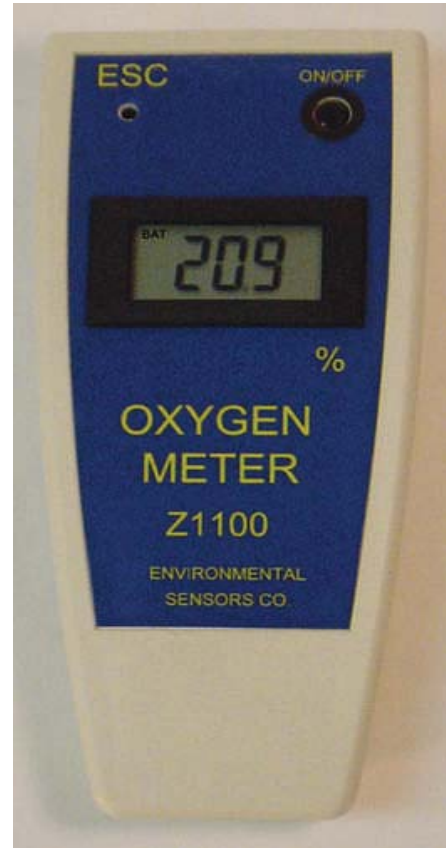
FEATURES

- Electrochemical Sensor
- Battery Status Indicator
- Audible Alarm
- Manual Span Adjustment

INTRODUCTION

Environmental Sensors Co.'s Oxygen Meter is a handheld instrument that measures oxygen concentration in a range of 0-25 % and a resolution of 0.1 %.

The instrument has an LCD display giving concentrations as a percentage, a battery status indicator, and an audible alarm.



Z-1100 Oxygen Meter

THEORY OF OPERATION

The sensing element of the instrument is an electrochemical cell. The cell is a four-electrode type, which contains a working and an active auxiliary electrode. The signal from the auxiliary electrode is used for temperature compensation and to improve the selectivity of the entire sensor. The sensor response is linear with the concentration of ammonia in air.

Oxygen Meter

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SPECIFICATIONS

Sensor Type	Electrochemical
Measuring Range	0-25 % Oxygen
Maximum Overload	30 % Oxygen
Resolution	0.1 %
Sensor Life	2 years
Response Time	< 15 sec.
Operating Temp.	-20 C° to +40 C°
Relative Humidity Range	15-90% non-condensing
Alarm	Audible, 80 db
Dimensions: HxDxW	5.5"x2.3"x0.7"
Weight	170 gms
Power Source	9-V Alkaline Battery
Warranty	1 year

Output Linearity

The output signal of the Z-1100 sensor is shown below, in comparison to the actual concentration. The sensor used is calibrated in air (20.9% oxygen). Calibration can be performed by using a span adjustment screw prior to each use. The maximum error range is about 0.5%.

Output Signal vs Concentration

