

## Model 901 Oxygen Analyzer

### ✓ Applications

- Meats
- Dairy Products
- Produce
- Snack Foods
- Baked Foods
- Prepared Meals
- Coffee
- Pet Foods
- Desserts
- Containers

### ✓ Features

- Portable, battery operated (includes rechargeable batteries and charger)
- Range 0.0 to 100% oxygen
- Long-life sensor (4-5 yrs)
- Internal sampling pump
- Economically priced
- Inexpensive to operate & maintain
- Calibrates with room air



- ✓ **5 YEAR SENSOR**
- ✓ **LIQUID BLOCKING FILTERS**

## ✓ What's Included:

- 200 foam septa
- Four filters (block all liquid and particles to protect instrument)
- 2 needles
- Charger and batteries (international plug included)
- Adjusting screwdriver
- NIST – traceable calibration certificate
- Operator Manual



## Overview

The Model 901 is a battery-operated, portable oxygen analyzer used for the measurement of residual oxygen in gas-flushed (CAP/MAP) food packages or other enclosed containers.

This hand-held unit can be used by non-technical personnel where you need it, in the lab or at the packaging line, or it can be easily transported to other locations. The Model 901 is powered by Ni-MH rechargeable batteries, with typically 8-12 hours of operation before recharging is required.

## Food Applications

The Model 901 oxygen analyzer design has proven itself in hundreds of installations for food applications such as meats, fresh produce, pasta, nuts, snack foods, dairy products and coffee.

## Reliability

The Model 901 is a cost effective, reliable alternative to other analyzers. Our proprietary oxygen sensor lasts 4-5 years, unlike competitive analyzers which may only last 12-18 months.

Combined with a lower initial cost, the total cost of ownership – including operating, maintenance, and consumable costs, is much lower. When service is required, units are generally repaired and returned the same day as received to minimize down-time.

## Easy Sampling and Analysis

The Model 901 sample probe is tipped with a liquid blocking filter and luer fit syringe needle with side-port holes to prevent plugging. Sample is drawn through the probe and tubing and then to the oxygen sensor. The pump turns on only to draw in sample required for analysis, and then turns itself off after the pre-set sampling time of 2 to 12 seconds.

## Sensor Design


Unlike other units which require a new one in a year or less, the sensor in the Model 901 is designed to last 4-5 years without replacement. The sensor is unaffected by high levels of background gases such as nitrogen or carbon dioxide, and high levels of oxygen do not overload the sensor. It is unaffected by trace hydrocarbons or high levels of CO<sub>2</sub>, which can poison other types of sensors. The sensor is internally temperature compensated and will work in cold room temperatures at 25°F (-13°C). The sensor is also totally sealed and requires no maintenance.

## Principle of Operation

The Model 901 uses a sample probe / syringe needle sampling assembly to pierce the package and draw a sample into the analyzer sensor for oxygen measurement. The sensor signal is converted to per-cent concentration and displayed on the LCD screen. The oxygen sensor used in the 901 was specifically designed

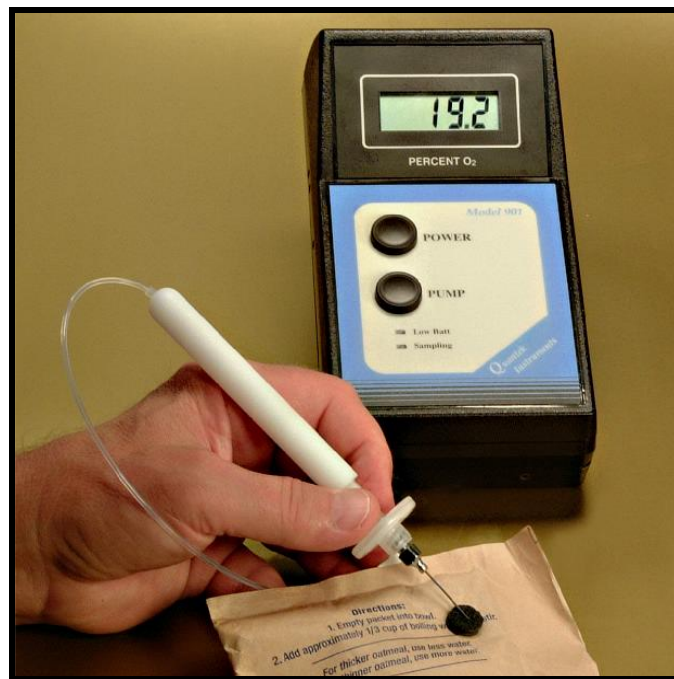
for gas-flushed packaging measurements. The sensor is a proprietary electrochemical design which is inexpensive, quick to respond, requires minimal power and has excellent zero and span stability. Unlike zirconia sensors which are heated to 500-600°C, the 901 sensor will not crack when exposed to liquid water droplets and is unaffected by trace hydrocarbon gases.

### **Technical Specifications**

<b>Range</b>	0.0 to 100% Oxygen
<b>Response Time</b>	~ 15 seconds to final reading (8 seconds to T95)
<b>Resolution</b>	0.1% Oxygen
<b>Accuracy</b>	± 0.1% (below 10%)
<b>Minimum Detection Limit</b>	0.1%
<b>Drift</b>	less than 1% per month
<b>Sensor</b>	Proprietary electrochemical cell, expected lifetime 4-5 years
<b>Sample Pump</b>	Internal, with adjustable timer, draws ~5cc/sec
<b>Sampling Assembly</b>	Probe with male luer connection for side-port needle, PTFE tubing
<b>Calibration</b>	Calibrates with room air; SPAN adjustment on side; ZERO adjustment on side
<b>Calibration Frequency</b>	Minimum once per year
<b>Power Supply</b>	Four "AA" rechargeable batteries; auto shut-off after 45 minutes idle. Charger included, with US or international interchangeable plug adapter (upon request)
<b>Backup Power</b>	Four "AA" alkaline batteries (not included)
<b>Input Voltage</b>	100-240V, 50-60Hz
<b>Battery Lfe</b>	10-14 hours before recharging
<b>Size</b>	8 x 4 x 1.8 in. (200 x 100 x 40 mm)
<b>Weight</b>	1 lb. (450 gms)
<b>Warranty</b>	2 years, parts and labor
<b>Standards</b>	
<b>Included Consumables</b>	200 foam septas, 2 luer fit needles, 2 particulate filters, 2 liquid block filters
<b>Included Documentation</b>	Owners manual (includes operating instructions with detailed calibration instructions, calibration certificate, precautions), NIST calibration certificate
<b>Origin of Goods</b>	Our products are manufactured in the U.S.A.



**Model 901 pictured with included accessories.**



**Model 901 – Sampling package**