



OxySense

OxySense® 4000B Portable Oxygen Analyzer

Non-invasive (Non-destructive) Measuring Technique

The OxySense® 4000B Oxygen Analyzer is a portable, fully integrated instrument that enables the non-destructive measurement of oxygen in sealed packages or bottles wherever and whenever you want it! The portability of this system makes it perfect for multiple-location testing programs.

The system utilizes a non-invasive optical measurement methodology with an O₂xyDot®, (a separate fluorescent oxygen-sensitive sensor) that is placed inside the container to measure the oxygen concentration.

The act of measurement does not destroy or damage the package and the measurements are unaffected by pH and salt concentrations or by other gases.

System Components

The OxySense® 4000B System comes with everything needed to make measurements, including:

- OxySense® 4000B instrument with built-in TFT display, mouse and keyboard
- EaseAlign reader-pen assembly with integrated infrared temperature sensor
- O₂xyDot® application kit, including vacuum pen/applicator and extension
- Injection molded high-impact carrying case
- USB Memory Stick
- OxySense® 4000B documentation CD

Features

- Non-invasive (non-destructive) measurement
- Measures oxygen both in the headspace and dissolved in liquid
- Highly portable
- Automatic data logging
- Operator-friendly user interface
- Can be used in oil, water and air
- Independent of pH and salt
- Does not consume oxygen



Benefits

- Portability enables measurements to be taken anytime, anywhere!
- Fully integrated instrument
- Greatly improve testing time results through real time measurement
- Reduce product quality risks through more accurate results
- Diminish product waste by performing multiple measurements on the same package
- Eliminate contamination through the use of non-invasive technology
- No more guessing or statistical probabilities – now you can know what's inside

Uses

- Provides accurate measurements in real time for:
 - Shelf life studies
 - Permeability analyses of packaging materials and films
 - Oxygen scavenging performance
 - Quality control and Quality Assurance
 - Research and Development
- Reduces product waste by performing multiple measurements on the same package over time
- Data can be imported into PC applications for thorough data analysis
- Offers oxygen solutions for laboratory, shop floor and manufacturing environments

OxySense® 4000B Portable Oxygen Analyzer



Applications

Packaging

- Oxygen measurement in packages and bottles
- Packaging material evaluation and comparative testing
- Package design evaluations
- Permeation Testing of closures containers and films
- Research & Development

Food & Beverage

- Quality Assurance and Quality control
- MAP and Bottling Line startup
- Oxygen scavenging performance

Pharmaceutical

- MAP package evaluation and control
- Dissolved oxygen monitoring
- Blister pack testing
- Oxygen detection in anaerobic environments

Bio-Medical

- Animal tissue studies
- Oxygen detection in anaerobic environments

OxySense® 4000B Portable Oxygen Analyzer

The OxySense® 4000B is ideally suited for Research & Development and Quality Assurance programs. It is an easy-to-use, accurate method for conducting permeation tests, leak testing of modified atmosphere packaging (MAP), vacuum packaging, oxygen scavenging, closure seal, PET bottle and product shelf-life studies.

Accessories Available for Enhanced Testing

The OxyProbe enables measuring oxygen in random samples from the production line or when non-invasive measurements are not possible e.g. opaque containers. It is a penetration needle containing a sensor that fits directly onto the fiber pen assembly, making it very simple to use.

The OxyPress provides a simple, accurate method to push the OxyProbe into a rigid package or container.

OxySense® Calibration Chamber is the best way to enhance the systems accuracy and discrimination when the targeted measurement is within a narrow range e.g. 0% to 4%.

Specifications

	In Gas	In Liquid
Operating Range	0-30%	0-100% saturation O ₂
Detection Limits	0.03% (300ppm)	15 ppb (15u/L)
Accuracy	Accuracy is 5% of the reading even at low levels of oxygen, (effectively the accuracy improves at lower oxygen concentrations)	
Response Time	<5 Second	
Enclosure size	7.9"x10.6"x14.5 (20x26.9x36.83 cm)	
Operating Temperature	32-140°F (0-60°C)	
Power	100V-240V AC (50/60 Hz)	

About OxySense, Inc.

OxySense® manufactures proprietary passive, non-invasive oxygen measurement systems tailored to meet the needs of the food, beverage, pharmaceutical, bio-medical, environmental, packaging, wine and electronics industries.

