# **OpTech<sup>®</sup> - 0<sub>2</sub> Model P** VERSATILE AND **INNOVATIVE**



# **Multipurpose optical** oxygen measurement

The OpTech-O<sub>2</sub> is a simple yet effective tool for any laboratory with the need to measure oxygen inside a closed package or container. The OpTech gives the user the ability to measure the oxygen in a non-invasive manner through a transparent foil - making it perfect for shelf life determination of oxygen sensitive products.

Additional accessories like the OpTech needle and the ImPULSE<sup>™</sup> sensor enable the OpTech to measure oxygen in applications with limited headspace and also to measure oxygen through opaque packaging material.

The OpTech measures oxygen using an optical principle, which means that it does not extract any gas from the sample and thus makes it ideal for long-term testing of the same package.

### **Benefits**

- . No gas extraction
- Fast reading of O<sub>2</sub>
- Shelf life testing
- Headspace measuring

#### **Features**

- Non-invasive measurement
- Light weight
- PC software included
- Invasive needle



# HOW DOES IT WORK?

## DATA SHEET

The OpTech-O<sub>2</sub> platinum sensor can be deployed in three ways:

1: The platinum sensor comes ready to use in sticker format; reusable sensors for headspace applications in clear packaging. These sensors are placed inside the package using the convenient vacuum pen. The package is sealed and oxygen is measured nondestructively through the packaging material. This sensor type is ideal for package shelf life studies and distribution studies.

**2:** ImPULSE<sup>™</sup> platinum sensor measures oxygen inside opaque and retort packages, these sensors can be used for long term shelf life and respiration studies.

**3:** An invasive needle incorporating the platinum sensor for destructive headspace measurement in applications with limited headspace, like coffee pods and blister packs.

OpTech shown with the optional needle (p/n 320191) and ImPULSE<sup>™</sup> sensors (p/n 320193).



## **Technical specifications**

Detector and base	
Warm-up time	20 minutes
Detector dimensions	4.83 x 3.30 x 22.86 cm with needle (HxWxD)
	4.83 x 3.30 x 15.24 cm without needle (HxWxD)
Measurement method	Epifluorence Confocal
Power	Standard power USB port (2.5 watt)
Operating temperature	10-35°C
Compliances	CE/CSA/UL
Pressure compensation needle sensors	
Repeatability	
(0 to 150 mmHg)	$\pm$ 0.100% (1000 ppm) O <sub>2</sub> or 5% of reading, whichever is greater
(150 to 1000 mmHg)	$\pm$ 0.015% (150 ppm) O, or 2% of reading, whichever is greater
Range	0.050% (500 ppm) to 25%
Operating temperature	5-40°C
Sensors:	
Adhesive and ImPULSE	
Repeatability (certified)	$\pm$ 0.015% (150 ppm) O <sub>2</sub> or 3% of redading, whichever is greater
Range Adhesive	0.001% (10 ppm) to 25% O <sub>2</sub> Permeation Mode
	0.015% (150 ppm) 25% Headspace Mode
Operating temperature	5-40°C

Conforms to ASTM F2714-08.

Specifications subject to change without notice.

