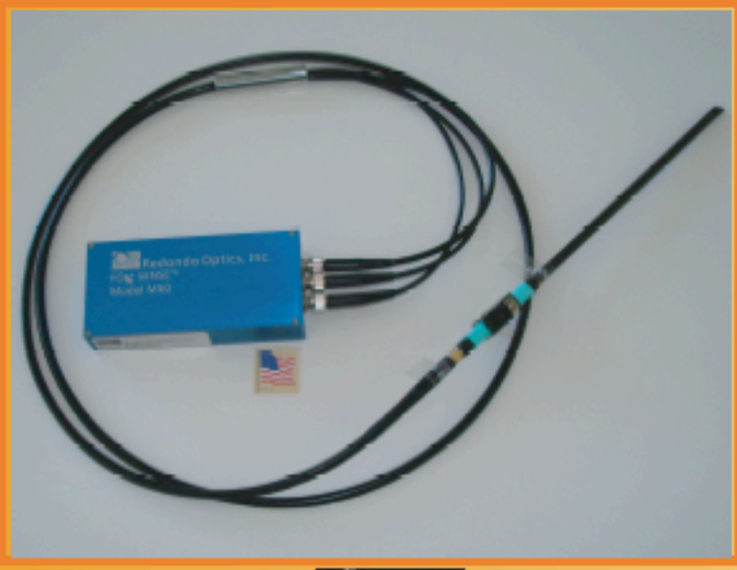
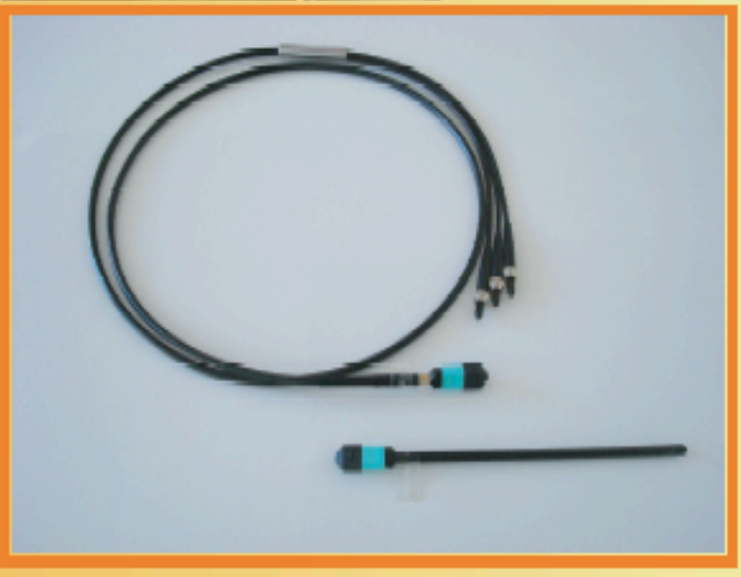
Product Disclosure

Redondo Optics, Inc.

All Optical Temperature Compensated Fiber Optic Oxygen Sensor

FOxSense™





The FOxSense™ fiber optic oxygen sensor system, with built-in optical temperature compensation is based on Redondo Optics' family of fluorescence lifetime systems, based on its proprietary frequency domain "phase-locked" detection technology, for the remote real time measurement of fluorescent lifetime events.

Its compact package, low power operation, state-of-the art data processing and plug-and-play architecture at affordable price makes it a very attractive solution for a large number of applications in biomedicine, pharmaceuticals, chemical and oil industry, civil engineering, aerospace, defense, and homeland security.

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FOxSense™ System Series

Preliminary Specifications*

Model No.	50	500	1500
Oxygen Concentration Range	0-100 mole %		
Response Time	< 1 sec		
Resolution	0.50%		
Temperature Range	(-) 45 °C to (+) 65 °C		
Monitoring Mode	Frequency vs. Time		
Frequency Mode	Phase-Locked		
Fluorescence Lifetime Range	80 µsec - 800 nsec		
Modulation Frequency Range	20 kHz to 200 kHz		
Modulation Frequency Resolution	0.1 kHz		
Excitation Source Type	Light Emitting Diode	Light Emitting Diode	Laser Diode
Excitation Source Wavelength	250-nm to 850-nm	250-nm to 850-nm	375-nm to 850-nm
Excitation Source Power	0.2 mW	0.2 mW	1-mW to 200-mW
Detector	Avalanche Photodiode	PMT	PMT
Emission Wavelength Selection	Optical Filter	Optical Filter	Optical Filter
Remote Sensing	Fiber Bundle	Fiber Bundle	Collimated Fiber Bundle
Fiber Optic Connector	Multimode-SMA		
Data Display	LabView Graphical Interface		
Data Communication	RS-232/USB		
Power Supply	9-12V/250 mA	12V/500 mA	115/220 VAC External
Dimensions	4-3/8 x 7 x 2 inches	6 x 8-1/2 x 2	19-inch rack

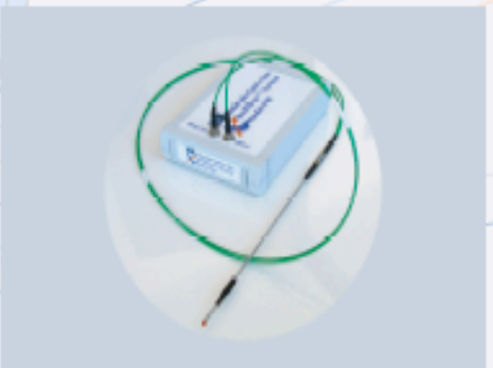
* Engineering specifications subject to change without prior notice

Key Features

- Fluorescence/Phosphorescence lifetime
- Fiber optic excitation and emission collection
- Point and remote detection
- Microsecond to picosecond response times

Support Package

- Data Sheets
- Prototype Units (Available January 2008)
- Qualification Report (November 2008)



Redondo Optics' FOxSense™ system is based on measuring the light induced fluorescence lifetime of target fluorophores in response to a spatially and temporally modulated light excitation signal. The fluorescence lifetime is measured using the principle of "frequency-domain" or "phase-locked" detection.

Contact Information
For further information on this or other products, please contact our sales department at (310) 406-1295 or e-mail sales@redondooptics.com.

Redondo Optics