NEW

ROX Optical Dissolved Oxygen Sensor

YSI's most Reliable Oxygen Sensor to date: ROX

The next-generation YSI ROX® is a luminescent-based dissolved oxygen sensor that offers YSI customers the most powerful tool for making long-term oxygen measurements in severe fouling and low oxygen environments. Its rugged design and large measurement range also make it ideal for sampling, flow cell, and ground water measurements.

The ROX Reliable Oxygen Sensor

- **Utilizes luminescence lifetime detection of oxygen to provide the most stable measurements possible**
- **Microprocessor-controlled measurement system reduces drift and improves accuracy**
- **Easy-to-replace, durable membrane with a usable life of one year**
- **Fully compatible with all YSI 6-Series sondes equipped with optical ports—with a free and easy firmware upgrade from ysi.com**
- **Easy one- or two-point calibration:**
  -One-point saturation
  -Two-point for a zero calibration point and saturation
- **Integrated wiping system providing anti-fouling in the most hostile environments and featuring:**
  -New switch-controlled wiper parking system
  -Non-corroding titanium wiper shaft for long-life in hydrogen sulfide (H_2S) and low oxygen environments
  -Service-center-replaceable wiper shaft seal for longer sensor life
- **Widest detection range of any optical dissolved oxygen sensor for easy correlation with YSI Rapid Pulse™ legacy data**

Pure Data for a Healthy Planet.®

YSI understands the challenges facing scientists and technicians in the field today. Many of our employee-owners spend time working along side our customers in the field and have experienced first-hand what works well and what does not. The lessons we have learned have been applied to the design of the new ROX sensor.

ROX Quality Control and Quality Assurance

Improving on YSI's commitment to supplying our customers with relevant calibration and QA/QC data, each ROX sensor is shipped with full-range factory calibration coefficients to ensure excellent sensor accuracy.

Methodology

The ROX® sensing system is based on the luminescence lifetime method. This method was chosen because it offers the most stable, repeatable and sensitive method for oxygen detection, thus reducing sensor drift and prolonging deployment times.

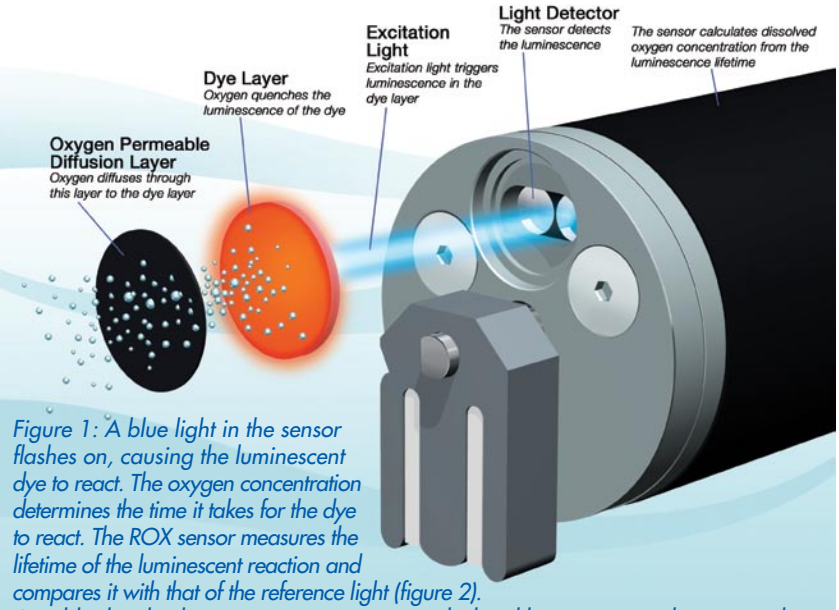

Figure 1: A blue light in the sensor flashes on, causing the luminescent dye to react. The oxygen concentration determines the time it takes for the dye to react. The ROX sensor measures the lifetime of the luminescent reaction and compares it with that of the reference light (figure 2). A stable dissolved oxygen concentration is calculated by comparing the two readings.

The ROX membrane differs from the traditional electrochemical sensor membrane, requiring fewer steps for installation and less maintenance. ROX membranes will last for one year and are made of a durable material that is unlikely to be damaged in the field. The ROX sensor eliminates stirring dependency that was required of most traditional polarographic sensors.

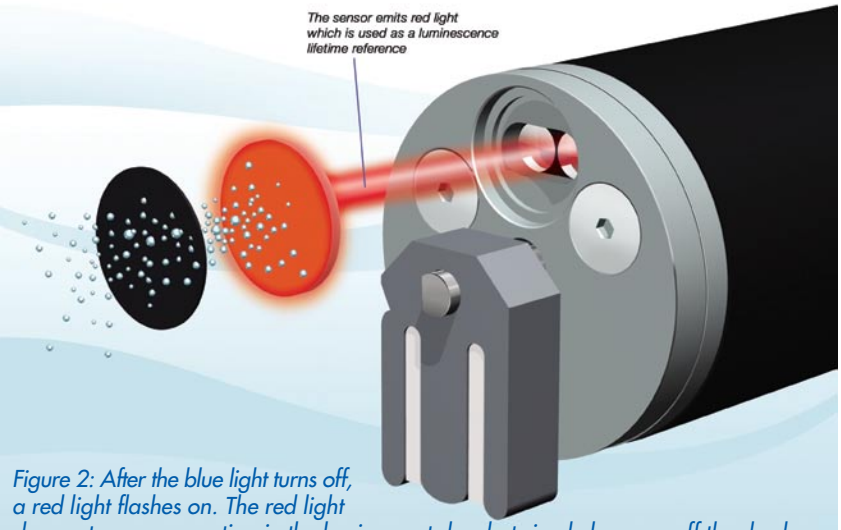

Figure 2: After the blue light turns off, a red light flashes on. The red light does not cause a reaction in the luminescent dye, but simply bounces off the dye layer into the light detector. This value is used as the reference.

Rapid Pulse vs. ROX

YSI's ROX sensor has several advantages over the Rapid Pulse™ DO sensor including:

- Zero flow dependence
- Maintenance-free and puncture-proof membrane
- No electrolyte
- Self-cleaning wipers for longer deployments
- Insensitive to H_2S
- Zero-cal option

YSI 6150 ROX Optical Dissolved Oxygen Sensor Specifications

	Range	Resolution	Accuracy
ROX Optical Dissolved Oxygen• % Saturation	0 to 500%	0.1%	0 to 200%: ±1% of reading or 1% air saturation, whichever is greater; 200 to 500%: ±15% of reading, relative to calibration gases
ROX Optical Dissolved Oxygen• mg/L	0 to 50 mg/L	0.01 mg/L	0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater; 20 to 50 mg/L: ±15% of reading, relative to calibration gases

• Maximum depth rating is 200 feet, 61 m

To order, or for more information, contact YSI

800 897 4151 (US)
www.ysi.com

YSI Environmental
+1 937 767 7241
Fax +1 937 767 9353
environmental@ysi.com

YSI Integrated Systems & Services
+1 508 748 0366
Fax +1 508 748 2543
systems@ysi.com

SonTek/YSI
+1 858 546 8327
Fax +1 858 546 8150
inquiry@sontek.com

YSI Gulf Coast
+1 225 753 2650
Fax +1 225 753 8669
gulfcoast@ysi.com

YSI Hydrodata (UK)
+44 1462 673 581
Fax +44 1462 673 582
europe@ysi.com

YSI Middle East (Bahrain)
+973 1753 6222
Fax +973 1753 6333
halsalem@ysi.com

YSI (Hong Kong) Limited
+852 2891 8154
Fax +852 2834 0034
hongkong@ysi.com

YSI (China) Limited
+86 10 5203 9675
Fax +86 10 5203 9679
beijing@ysi-china.comn

YSI Nanotech (Japan)
+81 44 222 0009
Fax +81 44 221 1102
nanotech@ysi.com

ISO 9001
ISO 14001
Yellow Springs, Ohio Facility

CE

YSI *incorporated*
Who's Minding the Planet?®