

# Submersible DO Sensor Optical or Clark Cell Electrode



O<sup>2</sup>O Optical



Clark Cell

## ■ DUO Concept – your choice!

O<sup>2</sup>O Optical or Clark Cell fit into the same O2X sensor!  
Both with temperature compensation.

**Clark Cell** – Teflon Membrane minimized fouling. The cell has an absolute zero which is an advantage in the measurement at low oxygen levels. The 0 never needs a calibration.

**Optical** – O<sup>2</sup>O uses new Phase Shift Technology which improves stability and has quicker response.

## ■ Long Life

**Clark Cell** 18-24 months dependent on DO concentration

**Optical** 2-3 years for luminophore & 5-10 years for electrode

## ■ Low Maintenance

- Automatic built-in flush nozzle cleaning system
- Cleaning with compressed air or water
- Field replaceable electrodes

## ■ Easy to Install

- Telescopic rod mounts to handrail
- Slide rail or Chain mounting also available

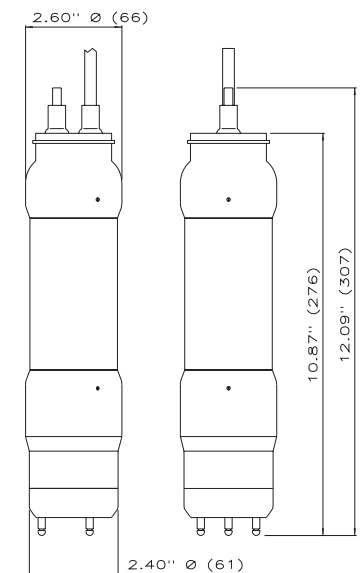
**Dissolved Oxygen Sensor O2X** for continuous measurement of dissolved oxygen in SBR systems, aeration basins, aerobic digesters and final effluent with temperature output at no additional cost. The O2X is essential in saving energy associated with running blowers in aeration basins. The measurement of dissolved oxygen also assists in controlling nitrification/denitrification and leads to better process control. The oxygen electrode provides stable and reliable readings.

New O<sub>2</sub>O optical DO electrode with Phase Shift Technology offers improved stability of DO readings and quicker response time. New cap coating is not damaged by UV light like current optical electrode designs. Cleaning of electrode with automatic cleaning feature using compressed air or water at 30 psig alleviates the need for frequent manual cleaning. No moving parts offers accurate measurement and very little maintenance.

## Technical specifications

<b>Material</b>	<b>316SS (2343)</b>	The sensor is manufactured in 316 stainless steel which resists corrosion. Body and head are designed for highest self-cleaning effect.
<b>Cable/Connection</b>	<b>10 M w/ M12</b>	10 m (33') long Hytrel cable w/ M12 digital connector. Highly resistant to aggressive liquid.
<b>Mounting</b>	<b>In liquid</b>	Immersion in liquid up to 1 bar (34')
<b>Mounting types</b>	<b>Telescoping rod Chain w/ L rod Slide Rail</b>	2-5 m (6'-15') telescoping rod including sensor SS Chain for digesters and SBR where liquid levels change For sampling tanks, 0.5m (19") slide rail standard but up to 2m (78") lengths
<b>Mounting bracket</b>	<b>Spring loaded</b>	316SS Spring loaded mounting bracket – heavy duty design
<b>Rating</b>	<b>IP 68 (Nema 6P)</b>	
<b>Weight</b>	<b>2.1 kg (4.6 lbs)</b>	
<b>Process Temp</b>	<b>0–50°C (32-133°F)</b>	
<b>Interface</b>	<b>RS 485</b>	Between BB2 box and O2X sensor

Measuring Principles	O <sub>2</sub> O Optical	Clark Cell
<b>Technology</b>	Newest Phase Shift technique Luminophore with durable layer	Active gold/silver (cathode/ anode) w/ Teflon membrane, 0.025 mm
<b>Measuring range</b>	0-20 mg/l	0-20 mg/l
<b>Accuracy</b>	+/- 0,1 mg/l O <sub>2</sub> < 5 mg/l +/- 0,2 mg/l O <sub>2</sub> > 5 mg/l	+/- 1% of full scale
<b>Life</b>	2-3 years for luminophore & 5-10 years for electrode	18-24 months dependent on DO concentratoin
<b>Cleaning – Built-in</b>	2 bar (30 psig) air or water w/ 8 mm (5/16") black UV flush hose x 10 m (33') long	2 bar (30 psig) air or 3 bar (45 psig) water w/ 8 mm (5/16") UV flush hose x 10 m (33') long
<b>Calibration</b>	At installation then not necessary	Every 6 – 9 months
<b>Options</b>	Protective coating for abrasive applications	Protective plate



## O2X