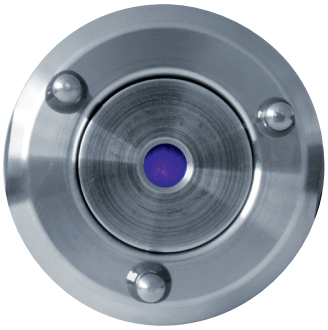
O2X DUO

Submersible DO Sensor with Optical cell or Electrochemical Electrode



Optical

Electrochemical

DUO Concept – your choice!

Optical cell or Electrochemical electrode, they both fit in the same O2X DUO sensor.

They will also fit in old sensors so you can easily upgrade, cost efficient and flexible!

Optical cell – uses new Phase Shift Technology which improves stability and has quicker response.

Electrochemical electrode – Teflon Membrane minimized fouling & built-in temperature compensation provides stability.

Long Life

Electrochemical 18-24 months dependent on DO concentration
Optical 2-3 years for cap & 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

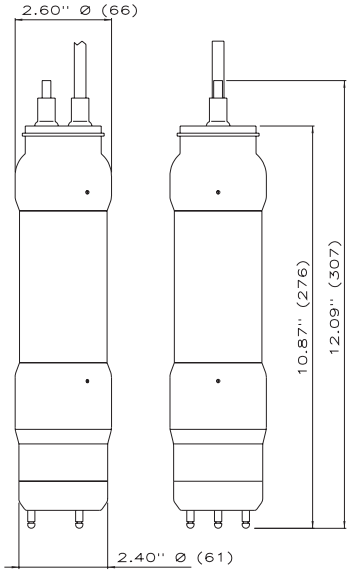
Dissolved Oxygen Sensor O2X DUO for continuous measurement of dissolved oxygen in SBR systems, aeration basins, aerobic digesters and final effluent with temperature output at no additional cost. The O2X DUO is essential in saving energy associated with running blowers in aeration basins. The measurement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

New Optical electrode with Phase Shift Technology offers improved stability of DO readings, quicker response time and new focusing lens to improve accuracy. 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 3-4 bar alleviates the need for frequent manual cleaning. No moving parts offers accurate measurement and very little maintenance.

Technical specifications

Material	**316SS (2343)**	The sensor is manufactured in 316 stainless steel which resists corrosion. Body and head are designed for highest self-cleaning effect.
Weight	**2.1 kg**	
Connection	**10 m**	10 m long Hytrel cable with M12 digital connector. Highly resistant to aggressive liquid.
Mounting	**In liquid**	Immersion in liquid up to 1 bar (34')
Mounting bracket	**Spring loaded**	316SS Spring loaded mounting bracket – heavy duty design
Rating	**IP 68**	
Process Temp	**0–50°C**	
Interface	**RS 485**	The sensor is "intelligent", all information are stored in the sensor. Fieldbus option. Can be pre-calibrated from factory.
Options and accessories		Telescopic rod 4 m incl holder. Flexible mounting bracket. Protective coating for abrasive applications. Mounting plate, solenoid valve and mounting rale.

Measuring Principles	**Optical**	**Electrochemical**
Technology	Newest Phase Shift with focusing lens to amplify reflection	Active gold/silver (cathode/ anode) with Teflon membrane, 0.025 mm
Measuring range	0-20 mg/l	0-20 mg/l
Accuracy	+/- 1% of Full Scale	+/- 1% of Full scale
Life	2-3 years for cap & 5-10 years for electrode	18-24 months dependent on DO concentratoin
Cleaning – Built-in	Prepared for cleaning with air or water 3 - 4 bars med 10 m flushing tube	Prepared for cleaning with air or water 3 - 4 bar med 10 m flushing tube
Calibration	Not required but can be adjusted in the field	Every 6 – 9 months



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BB1/BB2 Control Box All our sensors in the X-series can be combined and connected to a Control Box; BB1/BB2. The Control Box is equipped with communication protocols for compatibility with a wide array of automation systems. The control boxes comes with two 4 - 20 mA outputs as standard.

BB1 support one sensor. BB2 can support up to four sensors with 4 - 20 mA or Profibus DP output signals. Relay outputs in the BB1/BB2 are used for high and low alarms or to provide a pulse for automatic cleaning of sensors. Further information may be found in our leaflets for BB1/BB2.

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