# Introducing the LG Sonic PO4 sensor



### Highly accurate readings, delivered in real-time

The unique LG Sonic PO<sub>4</sub> Sensor monitors PO<sub>4</sub> in real-time, at different water depths. Through the implementation of the Yellow Method, the sensor provides highly accurate readings over a larger measurement range. Its robust design and durable materials ensure stability at high temperature ranges. The LG Sonic PO<sub>4</sub> Sensor automatically calibrates and cleans for ease of use and minimal maintenance on your part.



Combined with the other LG Sonic monitoring solutions, you gain a complete overview of your water quality parameters, delivered in real-time to the MPC-View online software.

## Advantages of LG Sonic PO<sub>4</sub> sensor

- ✓ Highly stable at high temperature ranges
- ✓ Measures PO₄ at different water depths
- 🕑 Lab-on-chip technology
- General High durability of reagents
- ⊘ Operates completely autonomously

#### Why should you measure PO<sub>4</sub>?

Nutrients, such as nitrogen and phosphorus, are essential in any aquatic ecosystem. However, their overabundance can cause several adverse health and ecological effects. The source of PO<sub>4</sub> in a water body can vary. It's important to know exactly where it comes from and in what quantity, as PO<sub>4</sub> released from the sediments may require different solutions than PO<sub>4</sub> flowing in from a stream.

Harmful algae blooms are fueled by PO<sub>4</sub>. Knowing the source of PO<sub>4</sub> helps you understand the problem you're dealing with, so that you can apply targeted solutions and more effective treatment – saving time and costs. The LG Sonic PO<sub>4</sub> Sensor provides PO<sub>4</sub> information in real-time, taking away the chore of frequent field trips and manual measurements, while ensuring reliable and accurate readings.



### **Technical specifications**

### Installation and operation

The LG Sonic PO<sub>4</sub> Sensor can be purchased separately or integrated into the MPC-Buoy.

- Sx solar panels of 200Wp, 40-amp lithium batteries for autonomous power supply
- Measures additional water quality parameters in real-time: pH, TSS, chlorophyll-a, phycocyanin, turbidity etc.
- Collects data in real-time and transmits it to the MPC-View online software
- Semits targeted ultrasonic frequencies to stop algae growth

- $\swarrow$  Predicts future algae blooms
- Can be completed with the LG Sonic Vertical Profiling System
- Sesistant to extreme weather
- ✓ Operates completely autonomously



Technology	Lab-on-chip
Range	0,00- 5.00 mg/L as PO <sub>4</sub> (a higher range of 20 mg/L is possible, but outside specifications)
Detection limit	0.01 mg/L PO₄-P
Number of runs per reagent set	≥ 300
Cleaning	Automatic cleaning and flushing step
Calibration	2-POINT calibration before each measurement. Remote calibration possible
Reagent life	Up to 6 months shelf life
Consumables	Recommended replacement of reagents every 3 months (based on 3 measurements per day)
Protection	Installed in sensor housing for protection against debris
Operational temperature	32 to 104°F
Filter pore size	0.1 µm
Filter maintenance	Recommended every 3 months

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