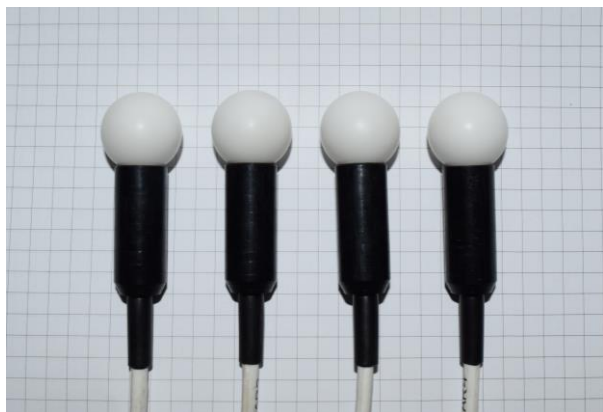


Spherical PAR Sensors



Aquation's **Spherical PAR Sensors** measure omnidirectional light underwater. They are particularly useful in aqueous solutions where light is highly scattered and diffuse (e.g. dense cell cultures). The miniature design (19 mm diameter) enables operation in small volumes.

Features

- Scalar 4π sensors measure omnidirectional light
- Continuous measurements, logged data
- Sphere diameter: 19 mm/ $\frac{3}{4}$ inch
- Submersible
- Non-corrosive plastic
- WiFi links controller to your network
- PAR (400-700nm) to $\sim 4000 \mu\text{mol quanta m}^{-2} \text{s}^{-1}$

Benefits

- Small size suitable for thin photobioreactors
- Spherical design ideal for dense cultures, turbid waters
- Multiple sensors = more data; can characterise water clarity in natural waters

Aquation's **Scalar PAR Sensors** measure irradiance as PAR from all directions, enabling you to determine how much light is available at a single point in waters with significant upwelling, scattered and diffuse light.

Omnidirectional light measurements are useful when calculating light use efficiency in cell cultures (e.g. electron transport rate) and light availability in natural systems including turbid estuaries or coral reefs with highly reflective sands.

Up to four Aquation **Scalar PAR Sensors** are connected to a single controller. The controller logs data continuously and makes this available to the host network via a WiFi link. The controller can be solar powered or operated from mains power.



Calibrating Scalar PAR sensors (right)
Sensor against 5 mm grid (left)

Field Studies



Pollution Studies



Plant Stress Analysis



Environmental Analysis

