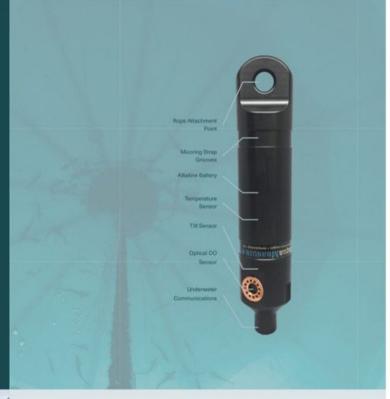# AQUACULTURE INTELLIGENCE

AQUAMEASURE SENSORS

AquaMeasure is a family of compact, submersible environmental sensors with underwater and in-air wireless communications. Combining this technology with real time cloud-based data management, aquaMeasure delivers an intuitive & unique user experience.

All aquaMeasure sensors measure temperature and tilt alongside their initial parameter, such as Dissolved Oxygen (DO), Salinity (SAL), DO/Depth (DOD), Chlorophyll (CHLA), Turbidity, BG Algae (Freshwater & Marine) and CDOM/FDOM. Each sensor enables large amounts of data, are easy to install, factory calibrated and robust to even the harshest ocean conditions.

Rope Attachment Point

Mooring Strap Grooves

Alkaline Battery

Temperature Sensor

Tilt Sensor

Optical DO Sensor

Underwater Communications

AQUAHUB TELEMETRY BOX

AquaHub is the core of the Aquaculture Intelligence system, it is situated at the surface and can be easily mounted on to existing infrastructure or feed barges. The Hub receives real time data via a multi-channel hydrophone deployed in 10 m water depth and can support up to 100 sensors within a 500 m range.

With the understanding of remote aquaculture environments, the aquaHub was developed with a variety of telemetry communications such as SMS, Iridium Satellite Network and Wi-Fi. It is also designed in a robust, waterproof housing to withstand harsh open ocean conditions.

AQUAENVIRONMENT PART OF REALFISH PRO

aquaEnvironment is a cloud-based software that allows the user to visualise their data in real-time, via computer, an iOS or Android app.

The software is user-friendly, provides analytic tools which enable the data to be viewed in a preferred format, can easily group data together for analysis, and offers information on battery health for each aquaMeasure sensor. Through the aquaCurrent tab in Realfish Pro, you can also configure thresholds for key parameters per pen and turn on notifications on your preferred device to go off when these thresholds are exceeded (e.g. Temperature) or falling under (e.g. DO).

aquaEnvironment is now part of Innovasea's new tool – Realfish Pro. In addition to environmental monitoring, Realfish Pro allows the integration of AI cameras for biomass monitoring, oxygenation and aeration systems (aquaControl), and enhanced phytoplankton logging and monitoring (aquaBloom).

AQUACONTROL - AUTOMATED AERATION & OXYGEN CONTROL

Water quality is paramount, and Innovasea has developed aquaControl, a fully automated aeration and oxygenation system that helps to quickly mitigate various environmental challenges such as:

- **HARMFUL ALGAL BLOOMS (HABS)**
- **LOW DISSOLVED OXYGEN EVENTS**
- **TEMPERATURE FLUCTUATIONS**
- **HYDROID/JELLYFISH INFESTATIONS**

aquaControl, as part of Realfish Pro, allows you to remotely monitor and adjust air and oxygen levels pen-by-pen across the entire site. The solution includes a first-of-its-kind digital valve system that's securely controlled via computer or mobile device in real time and can be triggered automatically based on data from aquaMeasure sensors.

This solution helps you ensure a healthy environment for fish stock, improve growth and reduce CO_2 footprint.