H2oBioSonic

Marine Growth Prevention System - H2OB1
Ultrasonic Antifouling System Overview

Globatech Australia is a world leader in Ultrasonic Antifouling technology and focuses on the design and development of environmentally friendly solutions to Bio Fouling issues in the Marine, Industrial and Commercial markets. Globatech Australia manufactures the "H2oBioSonic" range of products with a focus on the industrial and commercial applications.

Ultrasonic Bio Fouling technology has many benefits for industry to help combat the growth of algae and other marine fouling. Some applications include;

- Vessel hull protection
- Vessel running gear protection
- Seawater piping
- Freshwater piping
- Heat Exchangers
- Chiller Towers
- Fresh and Seawater Pumping stations
- Valves
- Strainers
- Water Storage Tanks / Reservoirs
- Desalination systems
- Algal Control in;
  - Bodies of water
  - Storage Tanks
  - and more

BENEFITS OF ULTRASONIC PROTECTION

Ultrasonic Bio Fouling protection with H2oBioSonic combats the common problems associated with algae and Bio Fouling;
- Reduced maintenance requirements
- Improved Flow
- Improved Efficiency of Exchangers
- Reduces Chemical requirements
- Cleans internals of pipes
- Maintains Valves
- Descaling Effect
- Destroys Algal Bloom

Ultrasonic Antifouling is an environmentally friendly cost effective solution for focusing protection where it is needed and saving on costly breakdowns, maintenance and improving efficiency.
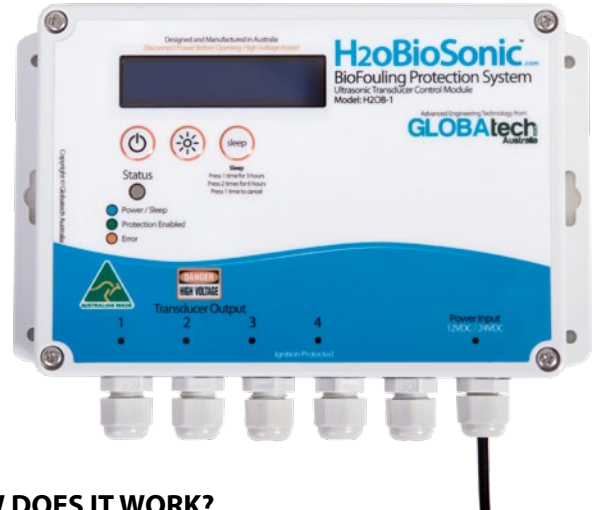
HOW DOES IT WORK?

The H2oBioSonic systems incorporate the latest in digital electronics and the most advanced ultrasonic transducer technology available. The H2oBioSonic system produces bursts of alternating ultrasonic energy using thousands of specific frequencies. The energy output generates microscopic bubbles which implode generating microscopic points of cavitation. The cavitation implosion has a cleansing effect and provides a constant scrubbing of the surfaces and water protected. During these implosions the cell wall of algae and other single cell bacteria and organisms is split preventing the continued growth.

H2oBioSonic also implements the !BLAST! function developed by Globatech Australia for added protection effectively increasing the output for short blasts of energy that drastically improves the effectiveness of the scrubbing effect.

ENVIRONMENTALLY FRIENDLY

Ultrasonic Bio Fouling protection provides an environmentally friendly alternative to protection, no chemicals are introduced. Test have also demonstrated that Ultrasonic Bio Fouling protection does not have any adverse effect to fish or other aquatic life.

Technical Overview

Dimensions

20.1 x 12.1 cm
footprint

5.5 cm
height

6 cm
diameter

6 cm
height

120 g
weight

6 cm
diameter

5 mm
height

20 g
weight

Transducer Footprint
Specially designed mounting footprint to simplify installation on flat surfaces.

Models

H2OB1Q
4 Transducer System

H2OB1D
2 Transducer System

Voltage & Consumption

Input: 12 or 24VDC Auto Selecting
Consumption: Average ~980mAh @ 12VDC
Standby Consumption: Average 15mA @ 12VDC

Input: 12 or 24VDC Auto Selecting
Consumption: Average ~490mAh @ 12VDC
Standby Consumption: Average 15mA @ 12VDC

Consumption at 24VDC are typically 50 – 70% that of 12VDC values.

Transducers

4 x Transducers + Footprints

2 x Transducers + Footprints

Package Contents

- 1 x H2OB1Q Control Module
- 4 x H2oBioSonic Transducers. 10m of cable each.
- 4 x H2oBioSonic Transducer Footprints
- 1 x JB Weld Epoxy Kit
- 1 x Loctite 515
- 1 x Instruction / Installation Manual

- 1 x H2OB1Q Control Module
- 2 x H2oBioSonic Transducers. 10m of cable each.
- 2 x H2oBioSonic Transducer Footprints
- 1 x JB Weld Epoxy Kit
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- 1 x Instruction / Installation Manual

System Certification

Transducer Output

4 Individually fused and protected transducer outputs.
50W peak output.

2 Individually fused and protected transducer outputs.
50W peak output.

Safety Features

- Internal Temperature control system with active compensation ensures system never exceeds operating range, increased life of electronics and optimal protection
- Built in heat extraction system
- Internal power monitoring
- Onboard Monitoring and Isolation Function
- Individual Fuses for each Transducer output
- Sealed Enclosure (IP65) Dust Proof & Water Resistant
- IP68 Transducers
- Low Voltage Input
- Ignition Protected
- Transient Voltage Protection
- High Quality Auto Switching 12-24V Input
- High Temp Rated Fire Resistance Enclosure – up to 125°C (-40°C to +125°C)

System Functions

- **Sleep Function:** 3 or 6 Hour Sleep modes. Button on front panel of module. Press once to enable 3 hours sleep – Press twice to enable 6 hours. The unit will then countdown the timer on the LCD panel. When Sleep is operating the Status LED will flash slowly Blue Only. Transducer operation will cease until the countdown expires.
- **Error Notifications:** Detailed Error status will be displayed using the LCD display. Buzzer will sound on Errors to attract attention to the problem.
- **Power Button:** Main Power On/Off control
- **Active Self Monitoring:** Internal Input and Output Current Monitoring, Temperature Monitoring and Active Output control ensures ultra long operating life and best possible Ultrasonic Protection.