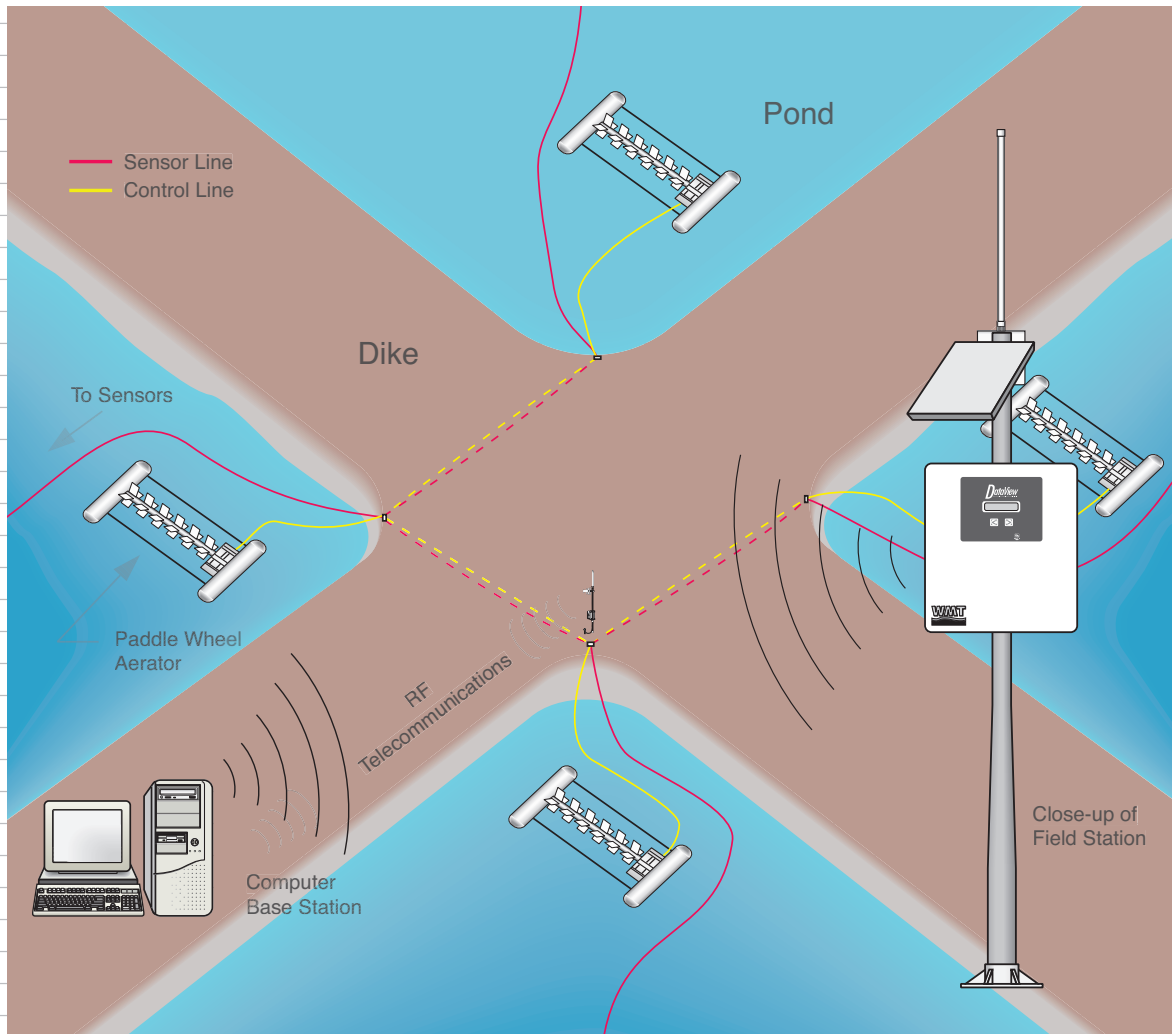




# Water Management Technologies

Aquaculture System Design, Integration and Equipment Supply

MONITOR / ALARM / CONTROL



**PONDMASTER**

## SENSORS



The OxyGuard probe is a membrane covered galvanic cell that generates an electrical signal proportional to the oxygen pressure it senses, no matter whether it is in water, air or another medium. The OxyGuard probe is very robust and easy to use. It does not need an external supply - it makes its own electricity. The OxyGuard probe is connected using ordinary cable and can be placed as required - there is no restriction on cable length. It can measure at a depth of 100 meters or more. The membrane can be wiped with a cloth, a tissue or even with your thumb!

Cleaning the membrane is, apart from an occasional calibration, the only routine maintenance necessary. Probes for use at lower oxygen concentrations (e.g. in waste water treatment) never need service unless the membrane is damaged - and the membrane is very tough. Probes for use at higher oxygen concentrations can, after some 5 years use, need renovation - which takes just two minutes to perform!

### Technical Advantages

- Extremely high stability - zero adjustment is never needed, calibration seldom.
- No regular maintenance needs. The robust membrane, 50  $\mu$  thick, is easily cleaned, but if damaged can be replaced by anyone - at negligible cost.
- Correct measurements with flow as low as 1 cm/s.
- Based on a chemical principle superior to that of traditional DO probes.
- Galvanic type - True zero.
- Built-in temperature compensation.
- No practical limit to cable length - extension can be made with any type of cable.

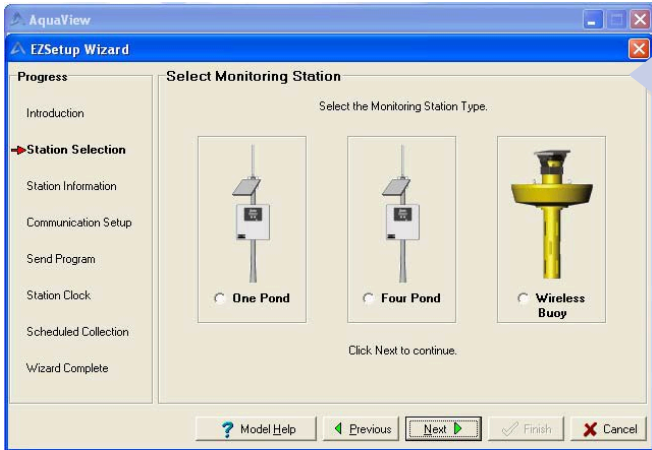
## SPECIFICATIONS

	PondMaster-Quattro	PondMaster-Uni	Radio
Operating Temperature Range	-25 to +50 C	-40 to +50 C	-25 to +50 C
Accuracy of Voltage Measurement	0.14% of reading	.025% of reading	
Clock Accuracy @+25 C	.025 min/month	1 min/month	
Data Values Stored	1,000,000	62,000	
Power Requirements	9.6 to 16 VDC	7 to 16 VDC	9 to 16 VDC
Charger Input Voltage	15 to 28 VDC or 18 VAC	7 to 16 VDC	
Quiescent Current Drain	.05 mA	.02 mA	
Active Current Drain	30 mA	20 mA	24 mA
Operating Frequency	910 to 918 MHz	910 to 918 MHz	
Transmitter Power Output	100 mW	100 mW	
FCC ID - OUR9XTREAM			

### OxyGuard Probe

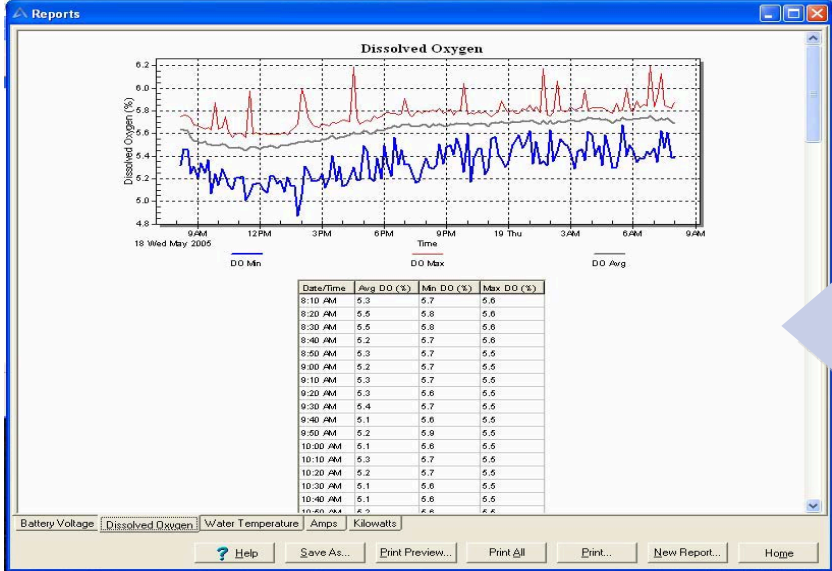
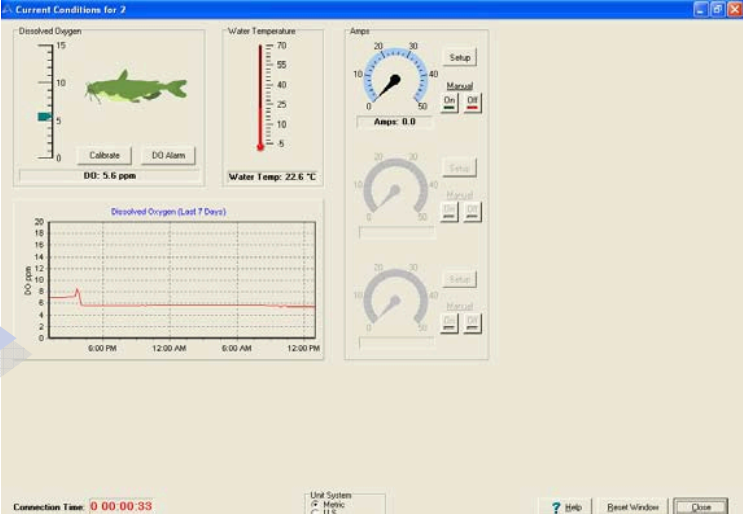
Dimensions:	Diameter = 58 mm, length = 59 mm. Standard cable length = 8 m.
Weight:	Approx. 450 g incl. cable.
Measurement Principle:	Galvanic cell, self polarizing, self temperature compensating.
Range and Output:	2.5 to 5 millivolts per ppm(mg/l). Output impedance approx. 1 kilohm.
Flow Requirements, water:	Minimum flow dependent on DO and temperature, typically 1 cm/sec.
Supplied With:	Spare cap fitted with membrane, 50 ml electrolyte,

# SOFTWARE



*Configuring your PondMaster stations in AquaView is simple using the EZSetup Wizard.*

*In addition to performing automatic scheduled data retrieval, you can connect to a PondMaster station manually and change alarm and aerator control set-points, monitor current conditions in each pond, and retrieve data.*

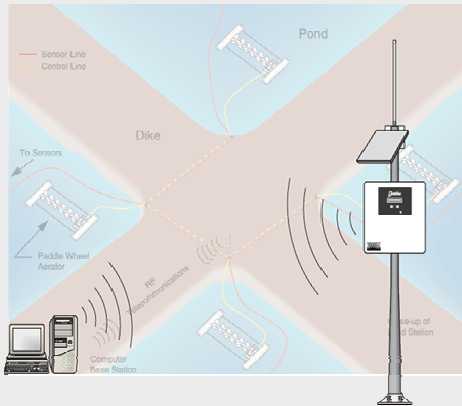


*The PondMaster station records large amounts of historical data. AquaView allows you to generate different reports with this database of values.*



*Data collected from each pond is displayed in the Overview. This allows data from each pond to be displayed simultaneously on a single page.*

## State-of-the-Art Technology Yields Restful Night's Sleep



PondMaster delivers cost effective, robust pond monitoring that is easy to install, maintain, and program. WMT offers the PondMaster-Uni for single pond applications and the PondMaster-Quattro for four pond applications. Customers requiring more than four ponds simply replicate the PondMaster-Quattro. All PondMaster systems are net-workable, capable of monitoring, and alarming for dissolved oxygen (DO), water temperature, and aerator amp draw.

### Proven Hardware and Software:

All PondMaster products employ Campbell Scientific Dataloggers, lightning protection, and radio telemetry communication. We use the standard Oxyguard DO probe and a mechanical wiper system to maintain clean DO membranes. PondMaster Software is straightforward and user friendly.

### Maximum Lifetime Profit:

Thanks to its sophisticated yet rugged design your PondMaster will give you low operating and maintenance costs for many years to come, thus assuring you of maximum lifetime profits. Just ask our customers.

## HARDWARE

### WaterTek PondMaster Monitoring Systems

Each PondMaster monitoring system consists of a Nema 4X enclosure mounted pond-side. Housed within each Pond Master is a datalogger, battery, radio transmitter and lightning ground kit. PondMaster accepts dissolved oxygen probes, aerator amp draw current sensors and water temperature probes. Dissolved Oxygen Probes may be installed wireless via solar powered buoy, or hardwired directly to PondMaster. PondMaster's spread spectrum radio transmits data wireless to a PondMaster Base Station consisting of an omni directional antenna kit mounted within one's home or office. Install Pondmaster AquaView software on your PC and the EZ Setup Wizard walks you through installation and configuration.

#### PondMaster-Uni

12"x10"x 6" NEMA 4X Fiberglass Enclosure  
 CR205 Datalogger w/900 MHz Radio  
 Panel Mount Display  
 7.2 Ahr Battery  
 (4) 10 amp Solid State Relay  
 Factory Wired w/Weather Tight Twist Connectors  
 Lightning Ground Kit

#### PondMaster-Quattro System

18"x16"x 10" NEMA 4X Fiberglass Enclosure  
 CR1000 Datalogger w/900 MHz Radio  
 7.2 Ahr Battery  
 (4) 10 amp Solid State Relay  
 Factory Wired w/Weather Tight Twist Connectors  
 Lightning Ground Kit  
 5 amp, 16 channel AC/DC controller

#### Communication options

900 mega hertz spread spectrum radio  
 Remote Palm Pilot Connection

#### Power Supply options

5 watt Unregulated Solar Panel w/ twist connector  
 AC adapter & 20 ft cable with twist connector

#### Probes

Stationary Oxyguard dissolved oxygen probes with 23 ft cable, twist connectors.  
 12 VDC brush agitator with 23 ft cable & twist connector.  
 109 Temperature Probe (-50-+ 70 C) w/23 ft. cable and twist connector.  
 CR Magnetics Current transformer w/23ft. cable and twist connector.

