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YSI 5500D Optical DO for Monitoring & Control Continuous Water Quality Monitoring for Dissolved Oxygen

Designed specifically for aquaculture systems, the YSI 5500D continuous monitor for dissolved oxygen and AquaManager® Software can be used to integrate process control, feeding, alarming and data management into one product or can be used to simply monitor one tank. With YSI's ODO® optical dissolved oxygen technology you'll benefit from reduced costs, less maintenance and better data. *The ODO sensors require no membrane changes, no electrode cleaning, no stirring requirement and less frequent calibrations.*

Parameters:

- Dissolved Oxygen (optical)
- Temperature

Applications:

- Recirculating systems
- Raceways
- Ponds
- Sea cages
- Live haul
- Aquariums
- Research
- Tanks

- MultiDO monitor using optical DO technology
- Ethernet TCP/IP or wireless communications - optional
- Event logging records calibrations, high and low conditions, and more
- Conditional feed timer with Feed Smart™ software included
- Networking capability up to 32 instruments per communications port or integration with 5200As and 5400s
- Graphic interface function for quick, reliable system status with the use of AquaManager software
- Plug-and-play...easy to install, setup and maintain; no need to hire consultants
- Flexible control software
- Tank-side Calibration
- E-mail and SMS alarming
- AquaViewer app available for easy access to data at any time



With optical DO, oxygen is constantly diffusing through the sensing cap affecting the luminescence of the sensing layer. The lifetime of the luminescence is measured by the sensor and compared against a reference.



The standard conditional feed timer, Feed Smart™, manages food delivery based on user's preset criteria. Manage feed delivery based on user-selectable inputs for the number of daily feedings, daily feed weights, total biomass and feed conversion ratios (FCRs), along with parameter control based on water quality values. Interfaces with most auto feeders.

Optional AquaManager® desktop software allows you to view, configure, or setup instruments from the convenience of one central location. Instantly see an overview of your facility, manage parameter set points, and conveniently manage data to make informed operational decisions. The facility mapping feature provides an immediate overview of all ponds or tanks indicating their current state.



YSI 5500D System Specifications

| | | |
|--|---|---|
| Dissolved Oxygen (Optical) (0-200%) (0-20 mg/L) (200-500%) (20-50 mg/L) | Range | 0 to 500% air saturation; 0 to 50 mg/L |
| | Resolution | 0.1% air saturation; 0.01 mg/L or 0.1 mg/L (auto-scaling) |
| | Accuracy | ±1% of reading or ±1% air sat, whichever greater; ±0.1 mg/L or ±1% of reading whichever greater |
| | Response time | 90% of reading in 25 seconds; 95% of reading in 45 seconds (typical response times with no stirring; sample movement will improve typical response times) |
| Temperature | Range | 0 to 45 °C (32 to 113 °F) |
| | Resolution | 0.1 °C |
| | Accuracy | ±0.2 °C |
| Timers | 4 timers - 10 events cascading events start/duration 4 feed timers (feeder not supplied); Feed Smart™ software manages feed delivery, user-selectable inputs for number of daily feedings, daily feed weights, total biomass, FCRs and parameter control | |
| Communication Ports | RS485 and RS232 standard; Ethernet and wireless optional | |
| Memory/Logging | Non-volatile; 2000 data, 1250 relay/alarm, 1000 entries/change and 500 GLP records | |
| Warranty | 2-years instrument, cable and probe; 1-year sensor cap (actual sensor cap life may be longer) | |
| Inputs | 1-4 DO probe inputs depending on model 4 user-configurable inputs for temp or (digital 0 to 1.0 VDC, 0 to 5.0 VDC or 4-20 mA) DO, pH, TGP, ORP, photo period, etc.* 2 user-configurable inputs, (digital 0 to 1.0 VDC, 0 to 5.0 VDC or 4-20 mA) DO, pH, TGP, ORP, photo period, etc.* | |
| Ratings | NEMA 4X, CE, ULC, CUL, ETL, RoHS, IP-65, Made in USA | |
| Instrument Operating Range | -15 to 70°C (5 to 158°F) | |
| Output Relays | 8 each 10 amp 115 VAC (5 amp 230 VAC) relays for parameter, control and/or alarm E-mail and/or SMS alarming up to 3 e-mails with Ethernet module or up to 10 e-mails with AquaManager | |
| Power Requirements | Option 1 | 12 VDC; mobile live haul or anytime AC power not available |
| | Option 2 | 100-240 VAC; automatically switches to 12 VDC back-up with alarm if primary voltage drops |
| Display | Back-lit graphic LCD (320 x 240) with timer, extended temperature range LCD | |
| Operating System | AquaManager Software: Windows 2000/XP/Vista/Windows 7 operating systems | |
| Field Upgradable Software | Yes; flash based | |
| Dimensions | | |
| Monitor | Height: 16.5 cm (6.5 in); Length: 21.6 cm (8.5 in); Depth: 12.1 cm (4.75 in) | |
| Sensor | Length: 19 cm (7.5 in); Diameter 2.4 cm (0.95 in) | |

YSI 5500D Ordering Information (order items separately)

| | | |
|-------------|--------|--|
| 5500D-01-AC | 606905 | Single channel optical DO monitor, 110-230 VAC |
| 5500D-01-DC | 606929 | Single channel optical DO monitor, 12 VDC, power supply not included |
| 5500D-02-AC | 606925 | Two channel optical DO monitor, 110-230 VAC |
| 5500D-02-DC | 606931 | Two channel optical DO monitor, 12 VDC, power supply not included |
| 5500D-04-AC | 606927 | Four channel optical DO monitor, 110-230 VAC |
| 5500D-04-DC | 606928 | Four channel optical DO monitor, 12 VDC, power supply not included |
| 626320 | | Sensor cap (included with initial probe purchase) |
| 626250-X | | 1- 4- 10- 20- 30- 40- 50- 60- or 100-meter cable with optical DO probe |
| 6505 | | Weather shield |
| 6509 | | Rail mount kit |
| 6510 | | Panel mount kit |
| 5209A | | AquaManager desktop software |

* A transmitter may be required.

YSI

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