YSI 5400
Continuous MultiDO Monitoring and Control

Designed specifically for aquaculture systems, the YSI 5400 Continuous Monitor for dissolved oxygen along with AquaManager® Software can be used to integrate process control, feeding, alarming and data management into one product for a complete facility or can be used to simply monitor one tank. Powerful enough to manage a full-scale farming operation from anywhere in the world yet simple enough for anyone to use.

- MultiDO monitor
- 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 can be integrated with 5200A multiparameter monitors or 5500 optical DO monitors
- Graphic interface function for quick, reliable system status checks
- Plug-and-play...easy to install, setup and maintain; no need to hire consultants
- Flexible monitoring and control software
- E-mail and SMS alarming

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. Browser-based format makes navigation, setup and maintenance easy and the facility mapping feature provides an immediate overview of all ponds or tanks indicating their current state.

Parameters:
Dissolved Oxygen (Galvanic; electrochemical)
Temperature
Additional User-Configurable Inputs

Applications:
Recirculating Systems
Raceways
Ponds
Sea Cages
Live Haul
Aquariums
Research
Tanks

YSI.com/5400
### 5400 Controller Specifications

#### Dissolved Oxygen (Galvanic)
- **Range**: 0 to 500% air saturation; 0 to 60 mg/L
- **Resolution**: 0.1% (0.0-99.9%); 0.01 mg/L (0-10 mg/L); 0.1 mg/L (10-60 mg/L)
- **Accuracy**: ±2% or ±0.2 mg/L whichever is greater (0-200%); 0-20 mg/L, ±6% of reading (200-500%); 20-60 mg/L
- **Response time**: 95% of reading in 17 seconds for 2.0 mil PE membrane; 95% of reading in 36 seconds for 2.0 mil Teflon® membrane

#### 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; 1000 data, 1250 relay/alarms, 1000 entries/change and 500 GLP records

#### Inputs
- 4 DO probe inputs
- 4 user-configurable inputs for temp (0 to 1.0 VDC, 0 to 5.0 VDC or 4-20 mA) or 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)

#### Ratings
- NEMA 4X, CE, ULC, CUL, ETL, RoHS, IP-65, Made in USA

#### Warranty
- 2-years instrument; 1-year probes and cable

#### Outputs
- 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

#### Size
- **Height**: 16.5 cm (6.5 in)
- **Length**: 21.6 cm (8.5 in)
- **Depth**: 12.1 cm (4.75 in)

### 5400 Ordering Information (controllers, cables, accessories separately)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5400-DC</td>
<td>MultiDO monitor, 12 VDC, includes wall mount, no power supply</td>
</tr>
<tr>
<td>5400-AC</td>
<td>MultiDO monitor, 100-240 VAC, includes wall mount and 115 VAC</td>
</tr>
<tr>
<td>605952-X</td>
<td>4-10-20-30-50-60 m cable with galvanic DO/temp (special order up to 100-m)</td>
</tr>
<tr>
<td>605953-X</td>
<td>4-10-20-30-50 m cable with galvanic DO (special order up to 100-m)</td>
</tr>
<tr>
<td>5405-S</td>
<td>DO membrane kit, 2 mil Teflon, 5 membranes, electrolyte</td>
</tr>
<tr>
<td>5405-25</td>
<td>DO membrane kit, 2 mil Teflon, 25 membranes, electrolyte</td>
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<tr>
<td>5406</td>
<td>1 pint (473 mL), DO electrolyte</td>
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<tr>
<td>6505</td>
<td>Weather shield</td>
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<tr>
<td>6509</td>
<td>Rail mount kit</td>
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<tr>
<td>6510</td>
<td>Panel mount kit</td>
</tr>
<tr>
<td>5209A</td>
<td>AquaManager desktop software</td>
</tr>
<tr>
<td>5578</td>
<td>12 V power supply, 230 VAC for 5400-AC</td>
</tr>
<tr>
<td>5579</td>
<td>12 V power supply, 115 VAC for 5400-DC</td>
</tr>
</tbody>
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