



## For longterm water quality monitoring with proven anti-fouling technology

- **Product type**  
Unattended
- **Parameters measured**  
Temperature, Pressure, Dissolved Oxygen, Conductivity
- **Product highlights**  
Ideally suited for extended deployments in remote, biologically rich environments
- **Interface**  
SDI-12, RS-232, RS-485 (optional)

Field proven sensors measure conductivity, temperature, pressure and optical dissolved oxygen. Depending on the application, the HydroCAT can collect high quality data for up to a year. Excellent bio-fouling protection is provided by US EPA-approved anti-foulant devices, integral pump, and unique internal flow path provides stable measurements throughout a deployment.

### Measured Parameters

| Conductivity      |                                     |
|-------------------|-------------------------------------|
| Range             | 0 ... 70 mS/cm (0 ... 70,000 µS/cm) |
| Accuracy          | ± 0.003 mS/cm (3 µS/cm)             |
| Typical Stability | 0.003 mS/cm (3 µS/cm) per month     |
| Resolution        | 0.0001 mS/cm (0.1 µS/cm)            |

| Temperature       |                                  |
|-------------------|----------------------------------|
| Range             | -5 ... 45°C                      |
| Accuracy          | ± 0.002°C / ± 0.01°C (over 35°C) |
| Typical Stability | 0.0002°C per month               |
| Resolution        | 0.0001°C                         |

| Pressure          |                                      |
|-------------------|--------------------------------------|
| Range             | 0 ... 20 m/ 0 ... 100 m/ 0 ... 350 m |
| Accuracy          | ± 0.1% of full scale range           |
| Typical Stability | 0.05% of full scale range            |
| Resolution        | 0.002% of full scale range           |

| Optical Dissolved Oxygen |   |
|--------------------------|---|
| Range                    | 120% of surface saturation in all natural waters    |
| Accuracy                 | ± 0.1 mg/L (3 µmol/kg) or ± 2% whichever is greater |
| Typical Stability        | < 0.03 mg/L (1 µmol/kg)/100,000 samples (20°C)      |
| Resolution               | 0.007 mg/L (0.2 µmol/kg)                            |

## Electrical

|                 |                 |
|-----------------|-----------------|
| Clock Stability | 5 seconds/month |
|-----------------|-----------------|

|                  |   |
|------------------|---|
| Acquisition Time | 2.3 ... 3.2 seconds/sample (see manual) |
|------------------|---|

| Power Supply   |  |
|--|--|
| Internal   | 7.8 Amp-hour (nominal) battery pack, 257 Kjoules (derated for calculations)  |
| Optional External Power  | 0.25 Amps at 9 ... 24 VDC  |
| Power Consumption(all with pressure) *   |  |
| Quiescent  | 0.0004 Watts   |
| CTD-DO Sample Acquisition (excluding pump):  | Real-time data enabled - 0.17 Watts<br>No real-time data - 0.155 Watts   |
| CTD-DO Sample Waiting (not sampling, pump running, excluding pump):  | Real-time data enabled - 0.056 Watts if receive line valid,<br>0.016 Watts if receive line not valid<br>No real-time data - 0.016 Watts  |
| CTD-DO Between Samples   | Real-time data enabled - 0.056 Watts if receive line valid<br>0.0004 Watts if receive line not valid<br>No real-time data - 0.0004 Watts |
| Pump   | 0.12 Watts   |
| Communications   | 0.065 Watts  |
| * Power consumption values are for standard RS-232 interface; for optional interfaces, see corresponding manual. |  |

| General          |  |
|------------------|--|
| Housing Material | Plastic  |
| Depth Rating     | 350 m (1148 ft)                                    |
| Weight           | 3.4 kg (7.5 lbs) in air, 1.5 kg (3.3 lbs) in water |