

WATCHMASTER™ BUOY

FEATURES & BENEFITS:

- Successfully deployed worldwide
- Easy to service
- Low operational costs
- Expandable to allow new sensors
- Supports variety of telemetry options
- Monitor and control from your office
- Rugged hybrid hull construction
- Real-time met & oceanographic data



The ideal data collection buoy for large lakes, rivers, harbours and open ocean

WATCHMASTER™ BUOY

Setting the Standard for Operational Performance

WatchMaster™ Buoy

The WatchMaster™ hull has a hybrid construction consisting of a stainless steel frame surrounded by a segmented polyethylene float and tower assembly. High quality UV-stabilized polyethylene is rotationally molded to form the seamless float segments. Each polyethylene segment has 12.7 mm thick walls with expanded polystyrene foam-filled centers. The buoy is 2.5 m in diameter with a standard 5-meter focal plane. Colour pigment is blended into the polyethylene, eliminating the need for painting.

The WatchMaster™ is a rugged environmental monitoring buoy that maintains all the features and requirements for navigation aids, (colour, top marks, and day marks). These buoys are in use worldwide as navigation aids.

The WatchMaster™ can be outfitted with a wide range of sensors for monitoring weather, air and water quality, waves, and other parameters in coastal areas, lakes and rivers.

The hull used by AXYS for the WatchMaster™ was designed by Tideland Signal Corporation as a low maintenance, rugged navigation buoy. The buoy is assembled from three main components: a float section, middle superstructure section and top section, which form an abrasion resistant, shock absorbing buoy able to withstand knocks and/or collisions. In event of damage, individual sections can be easily replaced on the deck of a buoy tender at sea. This design also allows the buoy to be easily dismantled for transportation on land or by ship, although the assembled buoy was also designed to fit in a standard shipping container. Through a unique mould design and controlled process, an increased thickness is formed at major stress points. The polyethylene material will also repel marine growth.

Data transmitted from the buoy includes buoy configuration, status data, position, and WatchCircle™ Alarm messages. Data is also stored on the buoy's internal data logger. AXYS WebView™ display software automatically receives, decodes and displays data transmitted from the buoy.



Specifications

- **Hull Construction**
Hybrid - rotationally molded in low density UV-stabilized virgin polyethylene, covering a 316 marine grade stainless steel frame
- **Foam Filling**
16 kg/m³ expanded polystyrene foam
- **Ballast**
Steel
- **Weight**
2,400 kg
- **Dimensions**
2.5 m diameter
5 m height
- **Mooring**
Inverse catenary, chain, semi-taut, or false bottom
- **Navigation Marks and Light**
IALA standard lamp
Radar reflector equivalent to 10m (X-band)
- **Visual Area**
Can be supplied in any of the red, green, yellow and black colour configurations with appropriate top marks in compliance with internationally recognized standards for navigation buoys.
Finish - Colour pigment blended into polyethylene
- **Electronics**
AXYS WatchMan500™ data acquisition and processing system
- **Typical Sensors**
Wind speed, wind direction, air temperature, water temperature, barometric pressure, wave height, period & direction, GPS, compass
- **Other Sensors**
Relative humidity, solar radiation, currents, turbidity, conductivity, radiometer, fluorometer, nutrients
- **Sub Surface Sensor Mount**
Specially designed through hull moonpool for serving in the field.
Sensors mounted on a removable rack
- **Telemetry Options**
 - Iridium
 - Inmarsat D+
 - Inmarsat C
 - VHF
 - GSM
 - CDMA
- **Power**
Up to 860 amp battery capacity
Fully solar powered
Four 50W solar panels
- **Position Confirmation**
AXYS WatchCircle™
Alarm indicates buoy is on station



 **AXYS TECHNOLOGIES INC.**

P.O. Box 2219, 2045 Mills Road West, Sidney, British Columbia Canada V8L 3S8

Phone: (250) 655-5850

Fax: (250) 655-5856

E-mail: info@axystechnologies.com

Website: www.axystechnologies.com