



The WatchKeeper™ Met Ocean Buoy is a versatile data collection buoy for large lakes, rivers, harbours, and coastal water deployments.



### FEATURES & BENEFITS

- » Real-time meteorological, oceanographic and water quality data
- » Low operational costs
- » Easy to deploy and service
- » Expandable to allow new sensors
- » Supports a variety of telemetry options
- » Monitor and control from your office



# WATCHKEEPER™

### Met Ocean Buoy

The WatchKeeper™ hull is a rugged, lightweight environmental monitoring buoy that maintains all the features and requirements for navigation aids.

The WatchKeeper hull is based on an SB-138P Sentinel® buoy contructed of medium density UV stabilized polyethylene rotationally moulded to form a seamless 9.5mm thick hull filled with polystyrene foam. Colour pigment is blended into the polyethylene eliminating the need for painting. These buoys are in use worldwide as navigation aids.

WatchKeeper<sup>™</sup> 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.

WatchKeeper<sup>™</sup> is the standard lightweight, environmental monitoring buoy used by Environment Canada.

## **Specifications**

#### • HULL CONSTRUCTION

Rotationally moulded polyethylene. Internally cross-braced with stainless steel rods and connected to stainless steel bushings in the mooring and lifting eyes to achieve maximum long-term strength. The hull is also filled with expanded polystyrene foam at 16kg/m³ to prevent water ingress in the event of hull damage.

#### FINISH

Colour pigment blended into polyethylene. No painting required.

#### BALLAST

Concrete (internal)

#### WEIGHT

Approximately 540Kg loaded with typical sensors, WatchMan500 payload and batteries

#### DIMENSIONS

1.7m diameter Anemometer height 3.3m

#### MOORING

Inverse catenary, chain, semi-taut, or false bottom

#### NAVIGATION AIDS

IALA standard lamp Radar reflector AIS transponder

#### ELECTRONICS

AXYS WatchMan500™ data acquisition and processing system

#### TYPICAL SENSORS

Wind speed, wind direction, air temperature/relative humidity, solar radiation, barometric pressure, wave height, direction and period, current speed and direction, GPS, compass, CTD, radiation and water quality sonde.

#### TELEMETRY OPTIONS

- UHF/VHF
- INMARSAT IsatData Pro
- IRIDIUM
- GPRS/HSPA
- CDMA/EVDO

#### POWER

Fully solar powered. Four 35W solar panels, 400 to 500 amp hour battery capacity.

#### POSITION

GPS package indicates whether buoy is onstation

WatchCircle Alarm Position Verification

## **Applications**

- Weather forecasting
- Oceanographic research
- Environmental monitoring

- Marine and coastal engineering
- Marine traffic safety
- Climate studies



