

# WISE BUOY

## WEATHER INFORMATION SYSTEM - METOCEAN BUOY



The A+D WISE BUOY - Weather Information Systems is an extremely reliable and versatile tool for safer offshore or marine operations. WISE BUOY can be used to collect data when planning operations, to increase the safety level during critical operations and can also be used to collect data for later analysis for statistics purposes as well as storing data for incident and accident investigations.

Weather conditions is the main limiting operational and safety parameter when operating many specialized offshore vessels. Weather critical operations such as passenger transport, heavy lifting, cable laying and others are often delicate or dangerous operations.

Accurate Weather Monitoring during such operations can increase the operational window significantly. It can be the main factor leading to a successful operation.

The WISE BUOY can be configured to many different applications. It can also be combined with other A+D MetOcean products to a complete customer specified package. Meteorological and oceanographic forecasting can be added and integrated as an extra feature.

**Automasjon og Data AS, Nikkelveien 14, 4313 Sandnes, Norway.**

Tel.: +47 51 12 30 80

Fax.: +47 51 12 30 81

[www.automasjon.no](http://www.automasjon.no)

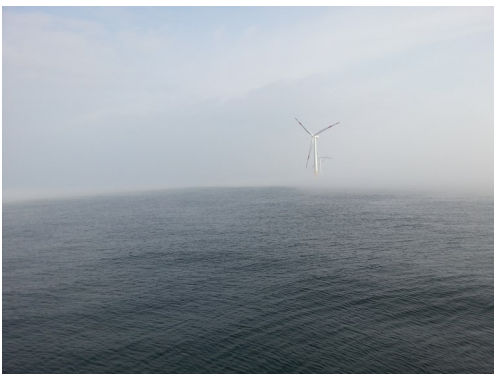
[post@automasjon.no](mailto:post@automasjon.no)

# WISE BUOY OVERVIEW: BUOYS FOR OPERATION

## Typical sensor configurations

- **Meteorological sensors:**
  - Wind Speed and Direction
  - Wind Profile, 200 meters (*under development*)
  - Air Temperature
  - Air Humidity
  - Barometric Pressure
- **Oceanographic sensors:**
  - Current Speed and Direction
  - Current Profiler, short range
  - Current Profiler, long range
  - Wave Height and Period
  - Sea Temperature
  - Conductivity
  - Water Quality parameters
- Motion parameters (6 DOF)
- Magnetometer
- Drift Off Alarm

- **Dimensions:** L=2374mm, W=1012mm, H=3000mm
- **Weight:** 350 kg
- **Displacement:** 1050 L



**METEOROLOGICAL SENSOR**  
 - Wind Speed and Direction  
 - Air Temperature  
 - Air Humidity



**WAVE HEIGHT SENSOR**  
 - Wave Height and Period  
 - Motion Sensor (6 DOF)  
 - Magnetometer

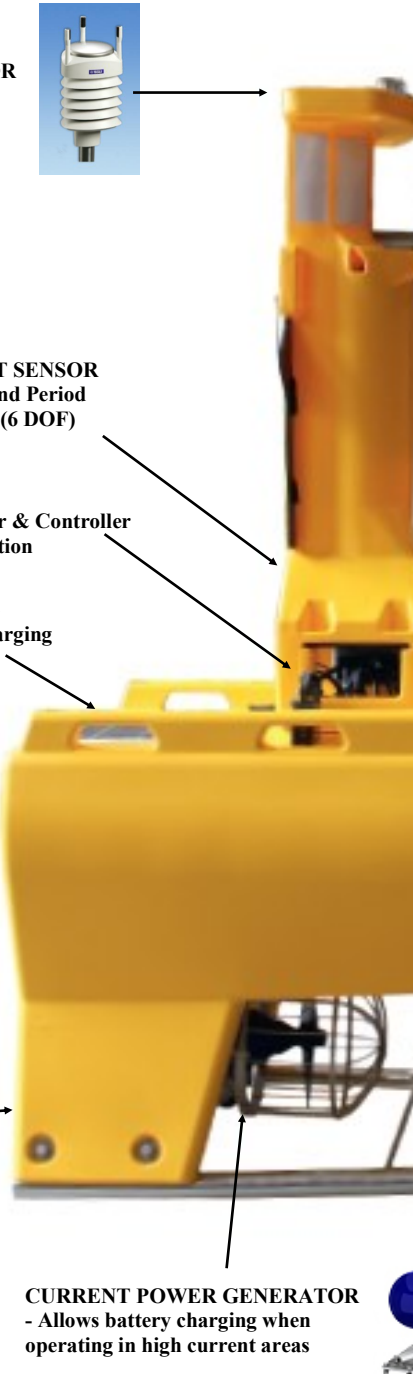
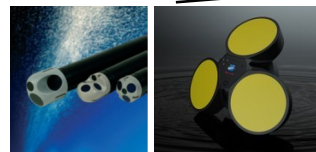


**POWER BOX**  
 - Battery charger & Controller  
 - Power distribution



**SOLAR PANEL**  
 - For battery charging

**SEA CURRENT SENSOR**  
 - Current Speed and Direction  
 - Current Profilers, short range and long range available (max 1000 meters)  
 - Sea Temperature  
 - Conductivity  
 - Water Quality parameters

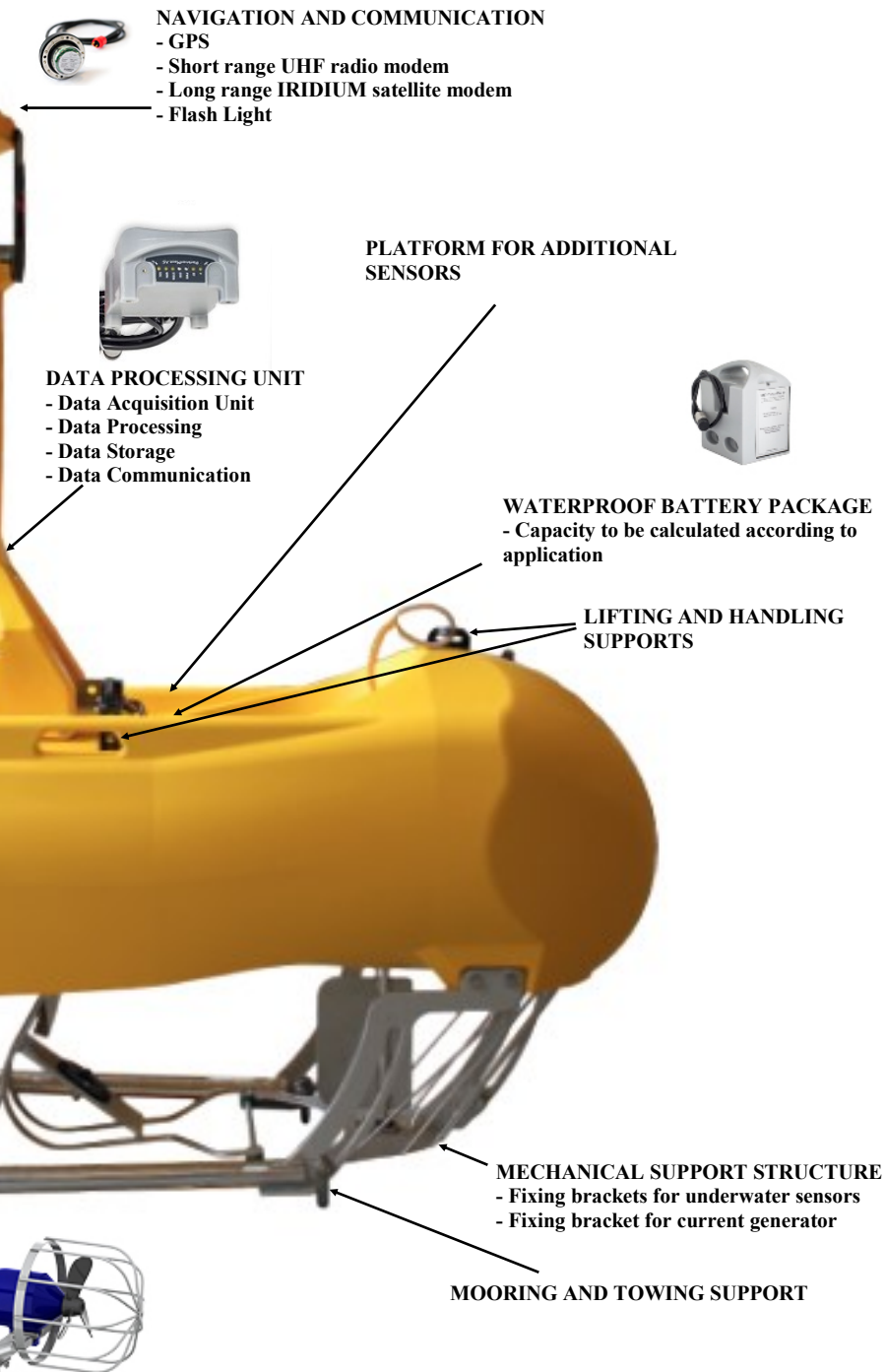


**CURRENT POWER GENERATOR**  
 - Allows battery charging when operating in high current areas

The WISE BUOY concept has been specifically developed as a buoy that is exceptionally flexible with regards to sensor portfolio, power supply, and data storage. It features an Iridium satellite modem for remote users. The amount of data and the number of sensors can be connected in a network in order to get as complete and flexible a data set as possible.

All user interfaces are very user friendly and can be set up to allow for local data storage and reporting. Local Wifi HotSpots can be set up to allow for local data access.

# OPERATIONAL SUPPORT DURING CRITICAL OPERATIONS



## WISE BUOY main advantages

- Well proven design in rough offshore conditions
- Easy deployment with many mooring options
- Can be towed to site by a small vessel
- Easy and flexible handling
- Lightweight and transportable
- Extremely robust, heavy duty hull, will withstand rough conditions
- Unsinkable floatation material
- User configurable design. Sensors can be changed or added very easily
- Versatile sensor platform for local or remote users
- UHF radio or Iridium satellite communication for maximum user flexibility
- Graphical User Interface (GUI) software for PCs, app's for tablets or smartphones. Wifi networks / HotSpots can be established for multiple users
- Low power consumption for long term operation

an extremely robust sensor platform for operational support during weather critical operations. The concept is supply design, set up and operation. It can transmit data over a UHF radio modem for local users and / or over and update rates can easily be set to suit specific operations or user requirements. Several buoys or other sensors flexible data packages as possible.

all kinds of display systems, from mobile phone or tablet APPS to complete PC software with options for data view multiple users to see the data from each unit.

Typical application examples:



## Typical users / applications

- Wind farm installations, O & M
- Heavy lift operations
- Heavy transport operations
- Vessels in transit
- Pipe laying vessels
- Cable laying vessels
- Seismic vessels
- Towing operations
- Diving and ROV operations
- Harbour and Pilot information
- Fisheries information services
- Coast Guard operations
- Military operations

Typical display examples, these can be tailor-made to each application or made user configurable:



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