

Multisensor Ultrasonic Offshore Weather Monitoring

Weather impacts every aspect of operations on offshore platforms, ships, and in ports. Rapid changes in weather and sea conditions make monitoring of both meteorological and oceanographic parameters a critical part of ensuring safety, while also maintaining operational efficiency.

Obscape's Weather Station supplies you with real-time weather data. This robust and user-friendly device combines Obscape's Power and Telemetry Module with the AIRMAR WX Series specifically designed for marine applications

Built-in solar panels and the GSM connection guarantee easy installation in any environment the Offshore Weather Station provides real-time, site-specific, weather information.



KEY FEATURES

- Comprehensive weather data
- Completely wireless
- Real-time data
- Solar powered

- Real-time data up to 4G (upgradable to Satellite)
- Multiple mounting options
- Versatile data portal included

THE VALUE OF WEATHER DATA

From mounting on buoys, USVs, and ASVs or racing and cruising sailboats to yachting and commercial fishing vessels everything starts with a thorough understanding of the local weather. Therefore, Obscape's Offshore Weather Station should be a standard asset of your environmental monitoring setup. It provides a wide range of weather parameters, including air temperature and pressure, wind speed and direction.

Virtually all mechanical and ultrasonic anemometers report apparent wind speed and direction. The Airmar WX Series is unique because it calculates both theoretical and apparent wind speed and direction. These wind readings are the same if the unit is mounted in a fixed location. However, if the WX Series is mounted on a moving vehicle, the apparent wind is the wind you would feel on your hand if you held it out the window while going down the highway. Since the WX Series has a built in GPS and compass, it calculates the theoretical wind based upon the apparent wind, speed of the vehicle, and compass heading.

COMPLETELY WIRELESS

The Weather Station is completely wireless. Power is supplied through built-in solar panels, while data are transmitted in real-time using a 4G GSM connection. Therefore, the Weather Station is easy to install at any desired location within GSM coverage. There is no need to worry about access to mains power or the internet. Its wireless nature makes the Weather Station very suitable for meeting the operational challenges of the harsh ocean environment

VERSATILE DATA PORTAL

The value of real-time observations strongly depends on the ability to view and analyse them in real-time. Therefore, the Weather Station comes with a license for the Obscape Data Portal. The data collected by your Weather Station, as well as the data from any other Obscape device you own, are collected into the Data Portal. The Data Portal offers various options for viewing, managing and downloading your weather data, including the generation of PDF reports. It is your ultimate tool to unify the office and the field.





TECHNICAL SPECIFICATIONS

DATA SPECIFICATIONS	
WEATHER PARAMETERS	Apparent wind speed and angle, Air temperature, Barometric Pressure
OPTINAL ADDITIONAL PARAMETERS	Three-axis Compass, Pitch and Roll, Internal GPS position, relative humidity, wind chill
SAMPLING INTERVAL	5 – 60 minutes (user selectable)
STORAGE	On-board micro SD card

PHYSICAL CHARACTERISTICS	
COMPONENTS	Power and Telemetry Module (PTM) and Weather Sensor
WEATHER SENSOR	AIRMAR WX SERIES (Model and additional parameters are application specific)
PTM WIDTH	87 mm
PTM DEPTH	87 mm
PTM HEIGHT	200 mm
PTM WEIGHT	1 kg

ELECTRICAL CHARACTERISTICS	
SOLAR PANEL CAPACITY	3W
BATTERY	1 single 18650 lithium battery
NOMINAL VOLTAGE	4.2 V

WEB-PORTAL SPECIFICATIONS		
REAL-TIME GRAPHS	Weather parameters and additional (status) parameters	
DOWNLOADS	Raw data (CSV format), Graphs (PNG), Reports (PDF)	
FORWARDERS	JSON API or HTTP post	
STATUS NOTIFICATION	Online/offline, battery level, parameter	
EMAILS	threshold exceedance	

TELEMETRY SPECIFICATIONS		
COMMUNICATION MODE	GSM (4G with 2G fallback- region determine prior to order), upgradable Satellite (Iridium).	
REAL-TIME DATA INTERVAL	5 minutes – 24 hours (user selectable)	
REAL-TIME DATA	Weather parameters and additional (status) parameters	
GSM DATA LOAD	Approx. 8 kB per message	

DEPLOYMENT	
WEATHER STATION	Deploy in a marine environment ONLY, in an unsheltered environment with maximum exposure to sunlight and wind.

PURCHASE SPECIFICATIONS	
WEATHER STATION	Purchase includes free web-portal license for the lifetime of the device, 2 x Std. PTM mounting brackets and 1 x SD card.
GSM COMMUNICATION	Optional GSM Global SIM card with 100 EUR of data credit available for purchase. Alternatively Micro SIM card and sufficient data credit to be arranged by user. Weather Station can also be run in offline mode (data saved to SD card).