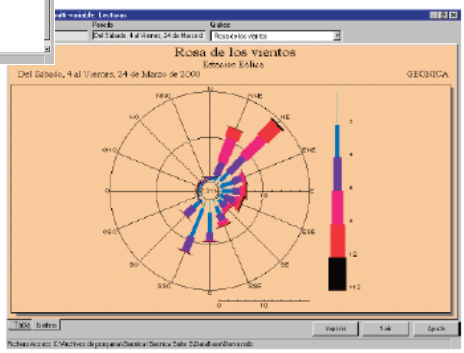
Oceanographic Buoy

Oceanographic buoys are units for the measurement of various environmental factors that may exist in the marine environment, and are indicated for both sheltered and open-sea waters.

EBM floats are made up of closed-cell polyethylene foam covered by a polyurethane Elastomer skin and a hot-dip galvanised steel superstructure where are located most of the sensors.

They are lightweight and highly resistant to harsh marine environment, thus providing a long service duty life.

The are designed according to IALA Recommendations.



FEATURES

Buoy

- Resilient Float of great resistance to impacts.
- Float core: Closed-cell polyethylene foam that prevents from water absorption.
- Float skin: Polyurethane Elastomer projection.
- Hot-dip galvanised steel superstructure.
- Marine paint highly resistant to corrosion and UV radiation.
- Great chain capacity.
- Ready to incorporate solar power system.
- Stainless-steel bolting.
- Compatible with a wide range of marine flashing lanterns.
- Day Marks as option.
- Passive Radar Reflector.
- Wide range of standard models.
- Low cost maintenance.

Sensors

- Direct-reading Acoustic Doppler Current Profiler with real-time data transmission.
- Electrical conductivity, temperature and salinity sensor.
- Turbidity sensor.
- Dissolved oxygen sensor.
- PH sensor.
- Chlorophyll "a" sensor.
- Nutrient (Ammonium, nitrate, chloride) sensor.
- Optical non-contact sensor for detection of oils and hydrocarbon-based fluids.
- Microwave Radar Tide Gauge System .
- Air Temperature and Relative Humidity combined sensor.
- Pyranometer for field measurement of global solar radiation.
- Barometric Pressure Sensor.
- Wind monitor.
- Module for measuring, recording and transmission of directional wave data.

Oceanographic Buoy

Float

- UV protected self-coloured polyurethane Elastomer covering.
- Closed-cell polyethylene foam core, to prevent water absorption.
- Anti-sliding surface top for higher safety during maintenance tasks.
- Great elasticity and resistance to impacts and boardings.
- Float diameters: 1.2 to 3 metres.
- Other diameters and volumes under request.

Float diameters available:
- From 1 to 3 meters.

Focal heights available:
- From 2 to 6 meters.

Superstructure

- Hot-dip galvanized steel.
- UV- and corrosion- resistant paint, with stable colours within IALA coordinates.
- Top mark according to IALA Buoyage System.
- Stainless-steel bolts.
- Ready to fit solar power system.
- Battery box capacity up to 200 Ah.
- Two lifting eyes.
- Top safety ring for maintenance tasks.
- One mooring eye.
- Sacrifice anodes to increase service life and reduce maintenance.

Electronics & Telemetry Module

The heart of the electronics module is the on-board computer, which performs several key functions:

- Control of all on board sensors.
- Data acquisition, quality assurance, storage, sensor fault detection, self repair (when possible).
- Data processing, statistical & batch operations.
- Inbuilt lightning resistance.

Data is processed using a series of proprietary, in-house algorithms and is stored locally for later retrieval (if required), as well as being transmitted to the Data Centre. System alarms and signals are sent in real time to the Data Centre to notify problems or potential failure conditions.

Management & Monitoring

A software of installation for the customer central computer includes:

- TELETRANS-W. Program installed on the computer to communicate with a remote acquisition unit that permits the local processing and data and image transmission station, either locally through a serial cable (RS232C) or remotely by the selected transmission channel (telephone, radio, GSM, etc.). The main functions are: to collect all the data stored in the memory of the station, to request instants data, to modify the storage periods and sampling, date and time synchronization, database generation, graphical analysis and edition of reports.
- DATAGRAPH-W. Consulting and data management application (generation of tables, charts, comparison of parameters, including those from different stations, etc.) stored on the computer using TELETRANS-W.

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