marine instruments

BUOY WITH ECHO-SOUNDER M3i

Description

Buoy with built-in echo-sounder used for satellite locating and monitoring of drifting and anchored floating objects (FAD's and PALLAOS). Specially designed for tuna fishing.

The buoy transmits echo-sounder information to the vessel, which allows the skipper to monitor the presence (volume) or absence of fish under the floating objects.

Buoy is equipped with double power supply: rechargeable batteries by solar panels and package of alkaline batteries, which provides a **THEORETICALLY UNLIMITED AUTONOMY** and assures full operation due to its extra energy reserves.

It includes a satellite transceiver, GPS, 500W echo-sounder, transducer, electronic circuit, an easy to open rugged body, temperature sensor and magnetic On/Off switch.

Operation

Once activated, the buoy M3i transmits by satellite a message that includes information about the GPS position in latitude / longitude, echo-sounder, the water temperature and the battery level in volts.
The M3i buoy has possibility of various modes of operation:

- **Low Consumption Mode:** It transmits 2 positions a day. During this mode the information of the echo-sounder is captured every 2 hours and is sent in the message (6 pings by position).
- **Approach Mode:** It transmits positions every 3 hours for 12 hours with echo-sounder stored information in the every hour (3 sounder pings in every position).
- **Recovery Mode:** It transmits a first position at once and then new positions every 15 minutes during 2 hours with 1 sounder ping in every position.
- **Poll Mode:** It transmits a position and one sounder ping few minutes after polling.
- **Flash Mode:** It activates the flash and transmits every 15 minutes during an hour with 1 sounder ping in every position.

Changes in the operation mode are made by remote control from the onboard terminal in an easy and automatic way. It is also possible to make adjustment in the echo-sounder gain by remote control.
The reception of messages on board is made by satellite way and it is automatic and unattended. Data presentation is on Display Reception System with C-MAP vectorial chart.

Advantages

- It has built-in **ECHO-SOUNDER** to provide fish report under the buoy.
- The **TRANSMISSIONS ARE ENCRYPTED**, making the system safer.
- **GLOBAL COVERAGE** by Iridium satellite constellation system.
- **FLAT RATE FEE** optimized communication costs.
- The buoy have not metallic parts, no external antenna, small dimensions body with transparent and reflection-proof finish upper cover. All makes the buoy undetectable by both, the eye and the radar.
- It has a flash for an easy night location.
- Thanks to modern technology and optimized power consumption, the battery has a theoretically unlimited autonomy. In case of any problems on the solar panels or rechargeable batteries it has backup alkaline battery pack which assures the operation of the buoy.
- The mushroom design assures excellent stability and floating in open sea.

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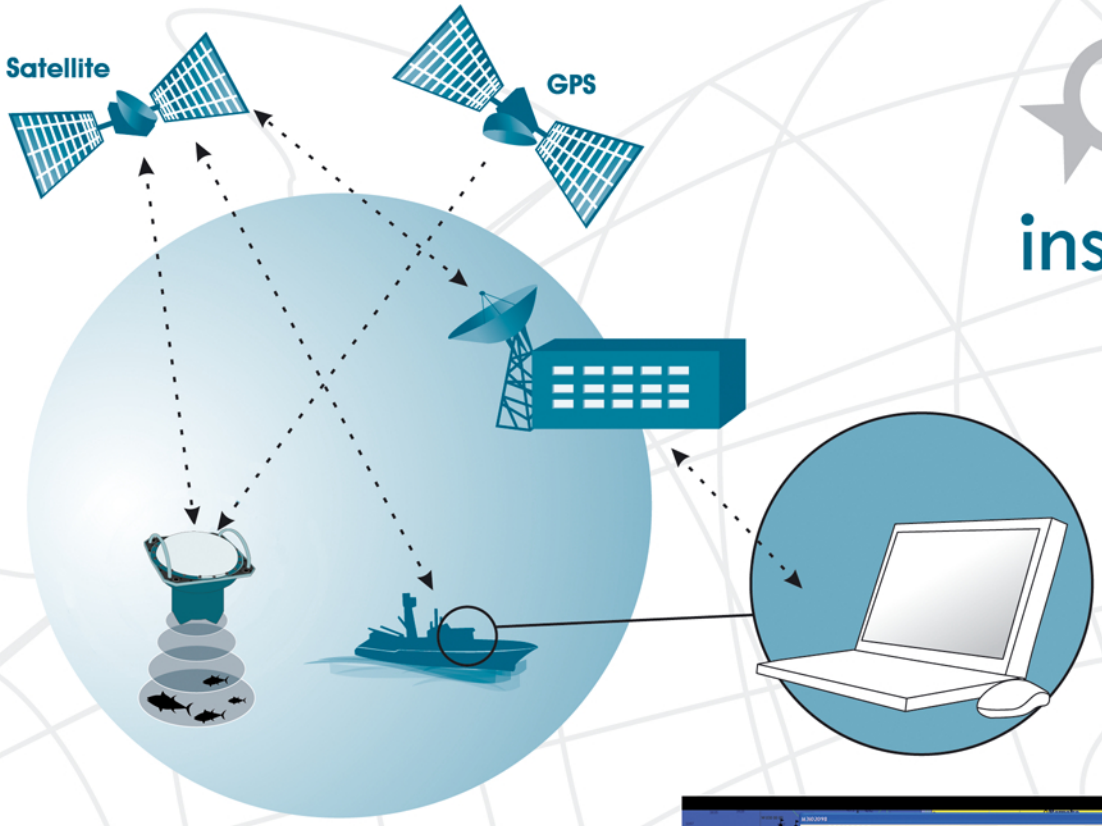

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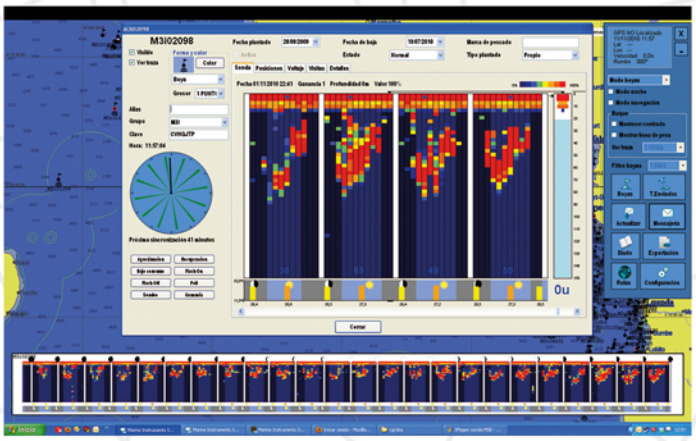


Operating plan

The onboard data reception is totally automatic and unattended. The change of operation mode of the buoy is made with a simple mouse click.
Various menus can be selected. For example: Listing of all the buoys, listing of the last positions and sounding of a buoy, graphical representation of all the buoys with different colors, graphical representation of one buoy, sounding information zoom, etc. The position information is compatible with MAXSEA and other plotters.
The communication to the vessel is made by various satellite systems, for example: MSR, FBB, Fleet MPDS or e-mail, Iridium OpenPort, etc.

Technical characteristics

Weight: 8,9 Kgs.

Battery: rechargeable battery by solar panels and backup alkaline battery pack.

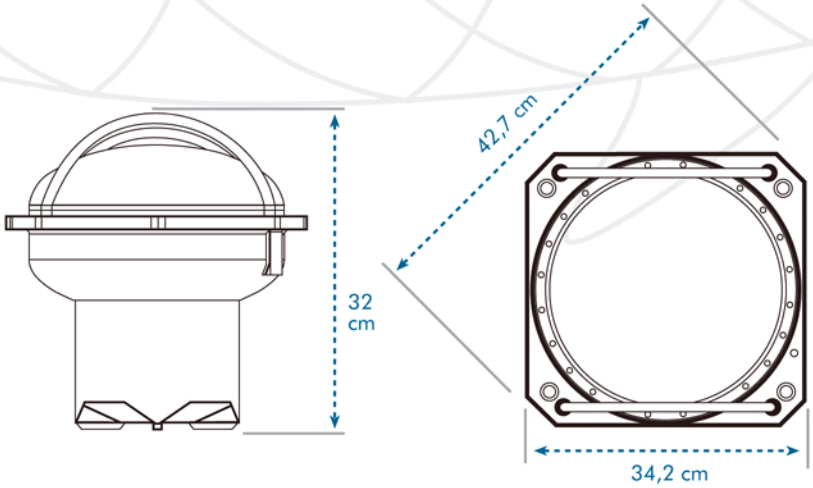
Floating: 4 litres.

Working temperature: -5ºC to +40ºC.

Measurements: 32 cm high x 42.3 cm diameter as a maximum wide. According to drawing.

Echo-sounder: 50 kHz. 500W.

Compatible software: MSB 2.0 or upper.



General Agent

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