



RADIO REMOTE MONITORING MODULE

MFUHF



MFUHF circuits are small and compact remote control devices, fitted inside our LED lanterns. The sending and receiving remote control signals is done through UHF frequency radio messages, on free-band.

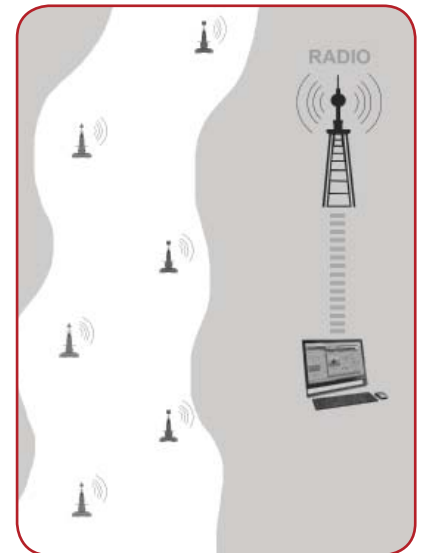
It is ideal when there is a high concentration of medium-distance remote stations, as for example port entrance channels, bays, river beaconing, etc.

Signals and alarms are transmitted to the control centre. Therefore, the ideal complement to the system is the GLOBAL NETCOM Remote Monitoring Control Centre, in order to process and manage all the information exchanged.

Its modular construction allows its installation subsequently to the purchase of a MSM lantern.

FEATURES

- ✓ Ideal to remote monitoring and control of MSM lanterns.
- ✓ Communication by ICM free-band radio to a control centre.
- ✓ Positioning and swinging radius on buoys (when including MFGPS module).
- ✓ Configuration is made by PC and RS-232 cable, using a free software. It can also be remotely settled through radio.
- ✓ A configurable sleep mode is available in order to save energy, but maintaining the transmission of messages at real time.
- ✓ No operation cost.
- ✓ Minimum energy consumption.
- ✓ Free-communication protocols, which allows the user to utilise his own control centre or use them for any other application needed.
- ✓ "Vigilantic" system available.
- ✓ Its ideal complement is the GLOBAL NETCOM Remote Monitoring Centre.



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Specifications subject to change without previous notice.



Real time monitoring signals

- Lantern off.
- Mooring-chain breaking by GPS positioning (for buoys).
- Battery voltage reading.
- LED current consumption reading.
- Solar charging reading in accumulated Ah/day.

Real time alarms

- Lantern off.
- LED diodes failure.
- Mooring-chain breaking.
- Low battery voltage.
- Flasher failure.
- Photocell failure.
- Wrong flashing rhythm.
- Excess consumption of the lantern.
- Solar module charge failure.

Technical specifications

Power range:	From 5.5 to 35V.
Daily average consumption:	12 mA (RADIO) 17 mA (RADIO+GPS).
Temperature range:	-30° to 60°C.
UHF frequency:	RADIO-ICM 868,10 to 869,65 MHz.
Emission power:	From 10 to 500 mW, adjustable.
Sensitivity	-105 dBm.
Relay function:	Up to 16 hopping radio.
MFGPS GPS receptor:	12 channels.

Operation cost

- No operation cost.
- Free-band radio, without channel contract.
- It only informs in case of alarms or commands.
- Adjustable maximum limit of messages per day.

Options

- Other modems available at other frequencies.
- MFGPS position/synchronisation module.
- Other status/alarm signals and commands available under request.

Commands from Control Centre to beacon

- Report request on beacon general status.
- Day-Night mode change.
- Flasher reset.
- GPS reset (when included).
- Position self-detection.
- Alarm acknowledgement by users.

MFUHF module features

- Communication by means of codified radio messages.
- Independent communication module from flasher, improving safety and global reliability.
- Sending of status and alarms by means of codified radio messages.
- Alarm detection on beacon operation, power supply and mooring-chain breaking in buoys.
- Remote re-programming via radio.
- Protection system through passwords and authorized users.
- 4 nos. configurable digital inputs by user (impact detection, tamper, etc.).
- Radio network auto-configuration by means of MESH protocol.