

MTU 300 Monitoring Unit via Radio

MTU300 UHF Monitoring Unit is a universal device able to send status and alarm signals from any rotating or flashing beacon, without need of additional sensor installation or internal modification. It also allows monitoring the beacon power supply. The sending/receiving system of monitored signals is executed through radio by UHF.

Messages are sent to the radio modem of the control centre. The signals and alarms are transmitted with direct link or using other remote/base stations as repeaters. Therefore, the ideal system complement is the NETCOM CC WEB Remote Monitoring Centre to manage and process the information.

For buoy installation, the **MTU 300-G** with integrated GPS antenna and receptor are used.

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- UHF communication module to 869 MHz.
- Power connectors and fast wiring control.
- Sending of status and alarms by means of radio links with IP Routing.
- Remote programming via radio.
- Protection system through passwords .
- Able to receive beacon test commands.
- Alarm detection on beacon operation, solar power system operation and mooring-chain breaking in buoys (Model MTU-300G).



UHF Universal Communication Module.
For compact beacons, the module is integrated inside the beacon.

Signals

- Beacon off.
- LED failure.
- Mooring chain breaking through GPS positioning (for buoys).
- Low-battery voltage alarm.
- Alarm on excess of beacon consumption.
- Alarm on solar panel loading failure.
- Rotating speed in r.p.m.
- Battery voltage reading.
- Beacon current consumption reading.
- 3 digital inputs and 2 digital outputs, opto-connected, configurable by the user.
- 1 rotation control input.
- MTU300 internal temperature.

MTU-300G Alarm Communicator

- Circuit controlled by microprocessor.
- Remote programming via RADIO.
- System protection by passwords.
- Lantern test commands.
- Initial self-detection of the buoy location coordinates at the time of installation.
- Current consumption failure detection.
- Power supply failure detection.



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Specifications MTU300 Module

- Input voltage: 10 to 35V.
- Idle current: 7mA.
- Average current 20mA.
- Frequency range.....868.100..869.900 MHz.
- Emission Power.....10mW or 100 mW.
- Protection class.....IP66.

GPS module specifications (for buoys)

- Information on buoy positioning in WGS84 real time, including maximum allowed swinging radius.
- Synchroniser unit with integrated or external antenna.
- GPS Satellite reception module, 12 channels, high sensitivity.
- Time and date according to GPS satellite signal and self-adjusting for the time zone.
- Initial self-detection of the buoy position coordinates at the moment of installation.

MONITORING

• Alarms on real time :

- Beacon off.
- Low or high beacon consumption failure.
- Low battery voltage.
- Beacon inactivity alarm.
- Mooring-chain breaking (for buoys).

• Comands User —> Beacon:

- Report request on beacon general status.
- Day/ night mode.
- Battery voltage, current consumption.
- Solar charge Ah-meter in accumulated Ah.
- Quality of RADIO and GPS signals.
- Remote change of configuration by RADIO.
- Message repeater functionality.

• Radiolinks:

- Intelligent re-routing of the remote-station radiolinks.
- Low consumption: it only informs in case of alarm or by request from the control centre.

• Security:

- Authorized users passwords.

