



Communications module

MTU Remote Monitoring Unit is a universal device, able to send status and alarm signals coming from the flashing beacons of the windfarm, without need to install any additional sensors or inner modification. Remote control can be also made to the beacon or peripheral devices. The system of sending and receiving remote signals is via SMS, GPRS, IRIDIUM or radio.

FEATURES

- GSM/GPRS or radio communication modules, or bidirectional
- satellite communication module via IRIDIUM.
- Power connectors and quick connexion control.
- Status and alarms sending.
- Remote programming.
- System protection by access codes and authorized user passwords.
- Able to receive beacon test commands.
- Alarm detection on beacon operation, power system operation and mooring chain breaking in buoys.
- Low operation cost.
- Two versions available:
 - Solar charge reading up to 15 A.
 - Solar charge reading up to 100 A (by external sensor).
- Its ideal complement is the GLOBAL NETCOM Remote
- Monitoring Centre.



Perfect for offshore windfarms. Users can be mobile phones, e-mail addresses or control centres. Signals and alarms can be transmitted to up to 10 configurable users, depending on communication mode.

Ideal for places without power system available Therefore, the system ideal complement is the GLOBAL NETCOM Remote Monitoring Centre, in order to process and manage all the information exchanged.

Technical Data

| | MTU 100 | MTU 200 | MTU 300 |
|-------------------------------|---------------------------|---------------------------|---------------------------|
| Power input: | 10 to 35V. | 10 to 35V. | 10 to 35V c.c. |
| Standby consumption: | 5 mA. | 5 mA. | 7 mA. |
| Average consumption: | 15 mA. | 22 mA. | 20 mA. |
| Emission power: | | | 10 mW to 500 mW. |
| Watertightness degree: | IP 66. | IP 66. | IP 66. |
| Frequency range: | 850-900 MHz. | 1,542.50 MHz. | 868.10 to 869.65 MHz. |
| Message format: | Free, with NMEA tracings. | Free, with NMEA tracings. | Free, with NMEA tracings. |

GPS Specifications

GPS satellite reception module, 12 channels, high sensitivity.

Information on buoy positioning in WGS84 real time, including maximum allowed swinging radius.

Integrated or external antenna.

Time and date according to GPS satellite signal and self-adjusting of time zone.

Initial self-detection of buoy position coordinates at the moment of installation.

MTU 100/200/300 Signals

Beacon off.

LED diode failure alarm.

Mooring-chain breaking through GPS positioning (for buoys).

Low battery voltage alarm.

Alarm on beacon consumption excess.

Alarm on solar module loading failure.

Rotating speed in rpm.

Battery voltage reading.

Beacon current consumption reading.

Solar charge current reading (in accumulated Ah per day).

4 nos. inputs and 3 nos. digital outputs, free, opto-coupled, user-configurable.

Inner temperature.

Alarm Communicator

| MTU 100 | MTU 200 | MTU 300 |
|--|---|--|
| Communication via GSM/GPRS. | Communication via IRIDIUM. | Communication via RADIO UHF. |
| Up to 10 different configurable users, with simultaneous sending or by agenda order. | Up to 5 different configurable users via e-mail, by simultaneous sending. | Coordinator transmits to the Control Centre, which distributes to the users. |
| Circuit controlled by microprocessor. | | |
| Protection system through passwords and authorized users. | | |
| Lantern test commands. | | |
| Initial self-detection of position coordinates at the moment of installation. | | |
| Alarm detection on current consumption failure. | | |
| Alarm detection on power supply failure. | | |

Options

Other radio frequencies.

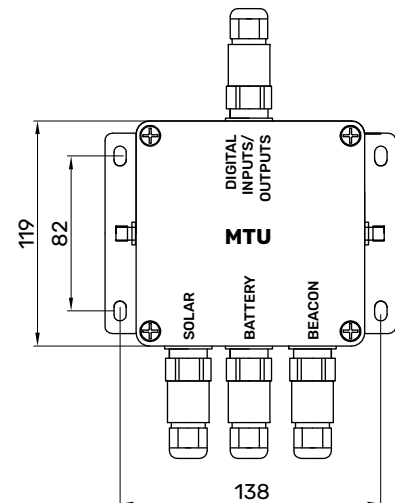
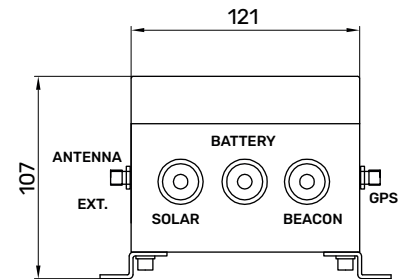
Other communication system via satellite.

Intrusion, fire and impact external sensors.

MTU

Universal Remote Control Unit

! Specifications subject to change without previous notice.



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