



# GSM REMOTE MONITORING MODULE

# MFGSM



MFGSM circuits are small and compact remote monitoring devices, fitted inside our LED lanterns. The sending and receiving remote control signals is done through GSM mobile phone messages.

Signals and alarms are sent up to 10 configured users. Users can be mobile phones or control centres. 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.
- ✓ Information is sent to mobile phones and control centres: in general to all authorized users or in priority agenda order, with alarm acknowledgment.
- ✓ Configuration is made by PC and RS-232 cable, using a free software. It can also be remotely settled from a mobile phone.
- ✓ A configurable sleep mode is available in order to save energy, but maintaining the transmission of messages at real time.
- ✓ Positioning and swinging radius on buoys (when including MFGPS module).
- ✓ Minimum energy consumption.
- ✓ Free-communication protocols, which allows the user to utilise his own control centre or use them for any other application needed.
- ✓ An inner temperature sensor is included.
- ✓ "Vigilantic" system available.
- ✓ Its ideal complement is the GLOBAL NETCOM Remote Monitoring Centre.



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Specifications subject to change without previous notice.



## Lantern status 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.

## Alarm signals

- 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.

## Commands from User/Control Centre to beacon

- Report request on beacon general status.
- Day-Night mode change.
- Flasher reset.
- GPS reset (when included).
- GSM reset.
- General system reset.
- Position self-detection.
- Change of MFGSM configuration by SMS.
- Alarm acknowledgement by users.

## MFGSM module features

- Communication by means of SMS messages.
- 4-band GSM/GPRS communication module with integrated antenna, for use at worldwide level.
- Sending of status and alarms by means of SMS short messages.
- Direct interrogation from mobile phone or control centre.
- Independent communication module from flasher, improving safety and global reliability.
- Alarm detection on beacon operation, power supply and mooring-chain breaking in buoys.
- Remote re-programmable via GSM.
- Protection system through passwords and authorized users.
- 4 nos. configurable digital inputs by user (impact detection, tamper, etc.).

## Technical specifications

|                            |  |
|----------------------------|--|
| Power range:               | From 5.5 to 35V.   |
| Daily average consumption: | 10 mA (GSM) 15 mA (GSM+GPS).                                     |
| Temperature range:         | -30° to 60°C.  |
| GSM/GPRS module:           | 850, 900, 1,800 and 1,900 MHz.<br>Quad-band, worldwide coverage. |
| External Inputs:           | 4 nos. opto-coupled.   |
| MFGPS GPS receptor:        | 12 channels.   |

## Operation cost

- SMS text message cost.
- It only informs in case of alarms or commands.
- Adjustable maximum limit of messages per day.
- Any operator under contract or prepayment mode.
- Special GSM operator contract to M2M.

## Security

- Authorized user passwords.
- SIM card protection by access code.
- Register of alarms sent.

## Options

- GPRS communication module.
- MFGPS position/synchronisation module.
- Other status/alarm signals and commands available under request.