

# MS1

# Equipment Monitoring



 **MarineSync**<sup>®</sup>



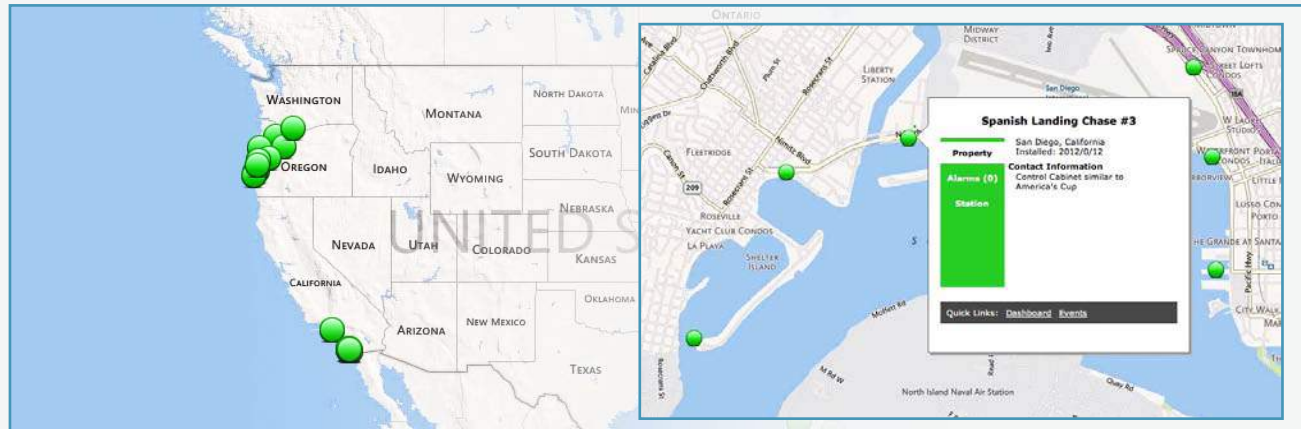
## MS1 EQUIPMENT MONITORING

The MS1 is a remote monitoring system designed for use in monitoring industrial pumps, marine equipment, lift stations, floating restrooms, pumpout boats, and other heavy equipment and remote applications.

The MS1 is compact, installs universally and boasts a powerful array of monitoring capabilities to support practically any application. Utilizing cellular data communication, the MS1 can be installed in remote locations offering real-time status of equipment, report generation, and an array of alarm and notification services.

## WEB BASED DASHBOARD

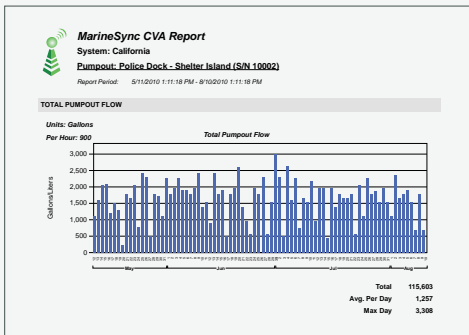
The MS1 synchronizes data with our secure web-based software application. The application allows subscribers to monitor and manage all monitored equipment from any web-enabled computer or device. Subscribers can manage multiple pumping locations, tanks, floating restrooms, or other equipment through a single webpage.



## INTEGRATED MAPPING

MS1 locations are overlaid using an integrated mapping feature which provides real-time equipment status. Details and site information can be obtained by mousing over the map or by using the navigation bar. When monitoring multiple locations, sites can be organized and categorized within your navigation bar.

# DATA REPORTING AND NOTIFICATIONS



Equipment usage data is automatically stored and archived in the cloud for reporting and analysis. Historical data is always accessible with MarineSync's included web-based software. Choose from numerous report templates online, subscribe to auto-generated reports or MarineSync can design custom reports based on your requirements or particular application.

The MS1 can automatically notify subscribers of alarm conditions via email, text message, and voice call. Alarm messages contain information about the alarm including the name and location of the MS1, alarm type, and the date and time of the alarm. For power outage alarms, a message will be automatically sent once the power is restored.



## WHAT CAN THE MS1 MONITOR?



### Alarm Inputs

Two universal digital inputs are provided to create alert notifications. Leak detection and high/low level sensors are possible uses for these inputs.



### Runtime/Cycles

Runtime and cycle monitoring provides the most accurate assessment of usage. The data is available online, reducing labor and travel expenses.



### High Current

Motor current is measured and displayed on the web-based software. High current alarms can prevent damage to equipment.



### Tank Levels

Two universal analog inputs are provided to create alert notifications. Tank level and other variable output sensors are possible uses for these inputs.



### Power Loss

The MS1 hardware was specifically designed to notify personnel in the event of power loss. Messages are sent via text message and email.

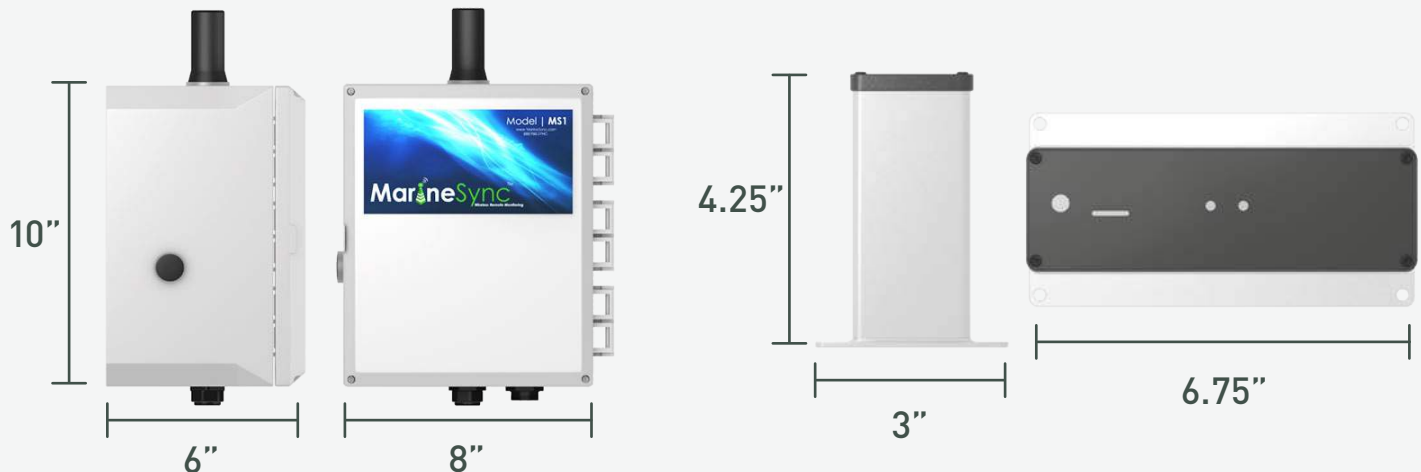


### Volume Calculation

Maintaining records of accumulated volume totals has never been easier. The MS1 software automatically calculates and displays volume totals.

## HOW DOES THE MS1 INSTALL?

MarineSync offers the MS1 Monitoring System in several configurations to simplify installation and facilitate OEM integration. The most popular configuration is the MS1 Plug & Play Package. This package is a clear-cut solution for retrofitting new or existing equipment. MarineSync also offers the MS1 in configurations to support control panel integration and OEM support. MarineSync offers an array of sensors, relays and mounting hardware to simplify any installation.



## TECHNICAL SPECIFICATIONS

### Device:

Size: 4.25" x 3" x 6.75"  
(108mm x 76mm x 171.5mm)

### Enclosure:

Size: 10" x 8" x 6"  
(254mm x 203mm x 152mm)  
Weight: 110.6 oz (3140 gms)

### Environmental:

Operating Temperature: -30°C to 65°C  
(-21°F to 144°F)  
Ingress Protection (IP): NEMA 4X

### Power Requirements:

Operating Input Voltage: 12 to 24 VDC  
Current: <15mA nominal, 330 mA peak  
(transmit) @ 12VDC  
Indicator: Tri-Color LED, PCB mounted  
On Board Internal Sensors (PCB)  
Temperature: -55°C to 125°C (-67°F to  
257°F)  
Digital Inputs: (4) Dry Contact  
Analog Inputs: (4) 4-20mA (100Ohm load)  
Digital Output: (1) Dry Contact (120VAC,  
1Amp max)

### Communication Technology:

Network: GSM  
Data Protocol: GPRS  
Antenna: 3db Omni Directional  
Approvals: FCC  
ESD Immunity EN61000-4-2  
Radiated Immunity EN61000-4-3  
EFT/Burst Immunity EN61000-4-4  
Conducted Emissions EN61000-4-6  
Radiated Emissions FCC Part 15, Class A  
EN61326-1, Class A  
EN55011:2007+A2:2007 (CISPR 11)

For more info on the MS1 Equipment Monitoring, visit us at:

[MarineSync.com/MS1](http://MarineSync.com/MS1) or Call us at **888.988.SYNC**



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