

## RELIABLE AND TIMELY DELIVERY OF YOUR CRITICAL DATA

Guardian Mobility™ offers an innovative wireless data communications solution that works seamlessly with sensors, control panels and instrumentation in remote locations to monitor and transmit status information. Compact, rugged and easily installed, the Guardian Sentinel™ ensures that your unattended field installations are optimally managed and critical information is delivered reliably, on time, when you need it.

### FIELD DATA DELIVERED ANYWHERE ANYTIME

The Guardian Sentinel field unit is ideal for large and small organizations ranging from natural resource companies to government agencies that rely on information from remote installations not easily accessible.

Typical field installations include:

- Meter reading of liquid fuel or industrial chemical tanks
- Monitoring assets and people during forest fire fighting operations
- Petroleum well-head monitoring
- Security alarm panels and detection systems in remote areas
- Transmission of sensor data: environmental, weather, water quality, water level, seismic data, soil quality

### WHY IS THIS IMPORTANT?

The Guardian Sentinel has been specifically designed for use in physically demanding and cost-sensitive applications where:

- Terrestrial wireless or wire line infrastructure is unavailable or unreliable
- Low volumes of high value, critical data need to be delivered reliably
- Infrequent transmission is acceptable
- No external power is available
- Installations are unattended and human monitoring is impractical and expensive
- Low start-up and on-going costs demanded

### KEY FEATURES

- Flexible operation with virtually any type of sensor
- Rugged, self-contained, maintenance-free operation
- Low power consumption
- Real-time data gathering
- Automated data transmission
- Encrypted messages for secure communications

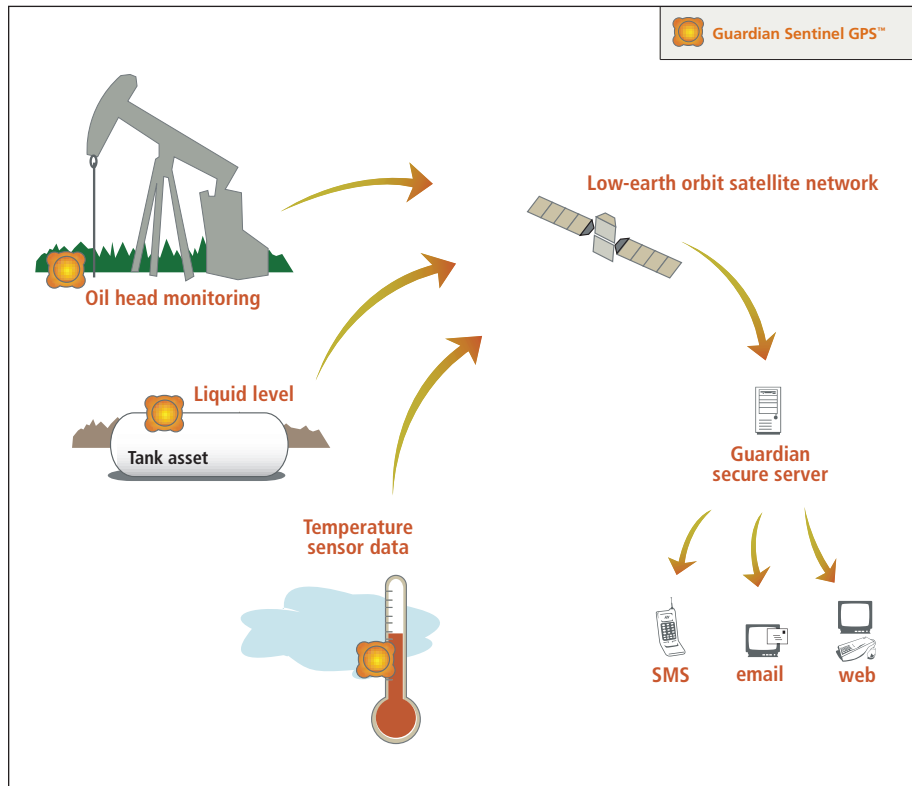
### KEY BENEFITS

- Information delivered when most needed without being on-site
- Easy and flexible installation
- No requirement to install a telecom infrastructure
- Increase safety and security
- Improve efficiency of remote operations
- Reduce travel and personnel costs

Guardian Sentinel GPS™—the low-cost, dependable, turnkey satellite communications platform for monitoring and locating people and assets.

## PRODUCT FLEXIBILITY

The low-power, cost-effective Guardian Sentinel is easily connected to most sensors and instruments through industry standard interfaces including RS232 and configurable digital and analog inputs. Flexible air time packages on the satellite communications network allow you to decide when and where your data is to be delivered.



## HOW DOES GUARDIAN SENTINEL WORK?

An end-to-end tracking and reporting solution, Guardian Sentinel uses a low-earth orbit satellite communications network. Sensor data collected by the Guardian Sentinel units is transmitted to secure servers at Guardian Mobility via the satellite network. Personnel responsible for collecting or monitoring the remote data can either connect to the Guardian secure web server to view messages or automatically receive transmissions via email, cell phone or fax. Transmission schedules are user-defined and can be delivered on a regular basis or on an exception basis when readings reach a defined value.

**Please contact us for more information on complete solutions for remote asset monitoring.**

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 **GUARDIAN MOBILITY**  
BE EVERYWHERE™

## ELECTRICAL

**Input voltage:** 9 V DC to 15 V DC

**Power consumption:** ~350 mA at 12 V on transmit; ~25 mA on GPS acquisition; <1 mA on standby

**Flexible battery types including:** 6 AA cells, lithium disulphide, 2900 mAh capacity; 7 C cells, alkaline, 8350 mAh capacity

## SATELLITE TRANSMITTER

Packet data transmitter (uplink only) running on Globalstar network Code Phase Division Multiple Access<sup>®</sup> (CPDMA) spread spectrum technology

**Frequency range:** 1611.25 to 1618.75 MHz

**Transmit power (max.):** 156 mW (+22 dBm)

**Antenna:** 25 mm integrated internal patch antenna, passive

**Optional antenna:** external, passive

**Satellite visibility:** 25° to 90° inclination angle from latitudes 70°N to 70°S

**Message format:** 136-bit packet; max. 16 packets/message (144 bytes total "payload")

## PHYSICAL

**Size:** 175 mm (length) x 175 mm (width) x 50 mm (thickness)

**Minibase version:** 130 mm x 90 mm x 40 mm

**Weight:** 500 g (without batteries)

**Mounting:** optional base plate for strap or screw mounting

## ENVIRONMENTAL

**Operating temperature range:** -30° to +60°C

**Enclosure:** compliant to NEMA Type 4X and Type 8 for use in hazardous locations (Class I, Division 1, Groups C and D)

## I/O CONFIGURATION

**Digital:** up to 8 input ports and 4 output ports (custom configured by manufacturer)

**Analogue:** up to 3 input ports (custom configured by manufacturer)

**RS232:** up to 2 ports (custom configured by manufacturer)

**External interface:** 2 8-pin circular connectors supporting 1 serial port, 2 analogue inputs and 2 digital inputs

**Configuration application:** Windows-based; supports up to 4 unique time settings defined hourly, daily, weekly or monthly

GMC Guardian Mobility Corporation is a leading developer of location-aware wireless data communications solutions for monitoring and tracking people and assets. Guardian Mobility solutions incorporate innovative satellite-based wireless communications and highly accurate GPS positioning technologies to deliver mission-critical and life-saving information from remote locations where wireline or terrestrial wireless networks are not readily available. Guardian Mobility products can be integrated with feature-rich, customizable, carrier-class Back Office monitoring and event response systems to provide end-to-end solutions.