Wireless Real-Time Alarm System

Identify problems quickly with real-time alarms

**Purpose-Built Hardware Is Easy to Install**
Each M110 is a complete wireless monitoring system. It includes the necessary hardware for installation, such as a cellular radio, enclosure, backup battery, transformer, antenna with cable and mounting hardware. Standardized RTUs speed and simplify installation.

**Reliable Wireless Communications**
RTUs operate on current generation (2G, 3G and 4G) cellular radios for dependable data transmissions. Mission maintains direct relationships with the largest cellular carriers in the U.S. and Canada to ensure the best service possible. There are no radios to program, cellular contracts to set up or radio licenses to purchase and maintain.

**Real-Time Alarms for Problem Identification**
Real-time alarms are delivered via phone, text message, email, fax, pager and even to your existing HMI software via an OPC data link. Each alarm is logged with a timestamp on your web portal for tracking and reporting. Settings can be tailored to better fit your alarming needs. The alarm call out schedule setup is easy, flexible, and intuitive. With a variety of options, you can design it to be simple or sophisticated. Numerous alarm features save time and money.

**Managed Service - The Complete Package**
The Mission service includes all communications, data storage, alarm call outs, reports and technical support. Alarm conditions are reported in real-time. Pump runtimes and pump data are summarized hourly. Analog data and RTU status are reported hourly. No engineering or programming is required and there are no networks to maintain.

**Robust and Secure Web Portal**
Data and reports are accessible on your secure web portal from any web-enabled device. This includes desktops, smartphones and tablets. Because the system is web-based, enhancements are immediately available and included at no cost. Tabular and graphical reports can be used for CMOM programs, compliance reports and comparative studies. Historical data is archived and never discarded. Refer to the Managed SCADA document for further details.
Details

**Technical Specifications**

**Hardware:**
- 8 supervised digital inputs; 3 configurable to runtime/starts accumulators. Option board expands digital inputs to 16.
- 2 analog inputs: 4-20 mA or 0-5 VDC, 10-bit resolution, 4 real-time alarm set points per input. Option board expands analogs to 6.
- 4 built-in alarms (AC, low battery, temperature and communications fail).
- 1 electronic key reader for site activity tracking and service mode.
- 3 remotely controllable, form C dry contact relay outputs (1 amp @ 12 VDC), SPDT, N.O./N.C.
- Supervised 120 VAC to 12 VAC, 1.2 amp power supply with UL Recognized Class II / Class III transformer.
- 5 AH battery provides up to 40 hours of back up power.
- Includes Antenna Kit (PN R8005) with mounting bracket and 1’ of cable. Omnidirectional outdoor antenna can be wall or pole mounted.
- 8 vertical LEDs for diagnostics.
- 8 digital input LEDs display input status and wiring faults.
- RJ45 connection for optional Wet Well Module (PN 651).

**Radio:**
- Units automatically self enroll with no startup delays. Radios make live, continuous, encrypted socket connections with all data and alarms being “end-to-end” acknowledged. Mission does not use SMS “text” messaging to transmit RTU data.
- AT&T, Verizon and Sprint radios have 128-bit encryption. All use TCP data transmission protocol.
- GSM: HSPA+ (ATT 3.5G and lower) Penta band (850, 900, 1700, 1900, 2100 MHz).
- **CDMA:** 1XRTT.
- 0.6 to 2 watt maximum transmit power and -112 dBm sensitivity.

**Data Frequency:**
- Digital alarm inputs and analog alarm set points: real-time.
- Digital runtime inputs: summarized hourly.
- Built-in telemetry and analog inputs: reported hourly.

**Physical:**
- Operating temperature –20°F° to +160°F°.

**Hardware Options:**
- Option Board - Digital Input (PN 650).*
- Option Board - Analog Input and Pulse Input (PN 459).*
- Option Board - Analog Output (PN 459).*
- Option Board - Pulse Input (PN 463).*
- Option Board - Analog Output and Pulse Input (PN O1000).*
- Wet Well Module (PN 651).
- Refer to Option Board and Wet Well Module data sheets for specifications; additional accessories described in the Accessories brochure.
- *One option board per RTU.

**Software**
- Requires Service Package - M110 Series (PN 51X).
- Optional SCADA Integration OPC Link (PN 586) to client/server HMI.

**Warranty:**
- **RTUs include a 1 year manufacturing and material warranty.**

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*Images and diagrams of enclosures and components.*