

# Wireless Real-Time Alarm System with Streaming Data

Identify trends with real-time streaming data and automatically or manually control remote assets.

## Purpose-Built Hardware Is Easy to Install

Each M800 is a complete wireless monitoring and remote control 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 Delivered To All Devices

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.

## Real-Time Streaming Data

M800 RTUs deliver real-time analog data and pump status for historical trending. View tank level changes and pump starts/stops as they occur.

## Remote Control

Automatically or manually control offsite wells, tanks, gates, chlorine dosers, variable frequency drives (VFDs) and more with remote control features such as the Tank and Well Control system, digital intertie and analog intertie.

## Managed Service – The Complete Package

The Mission service includes all communications, data storage, alarm callouts, reports and technical support. The highly reliable turnkey system offers more features at a lower cost than an in-house setup. No engineering or programming is required and there are no networks to maintain.

## Robust and Secure Web Portal

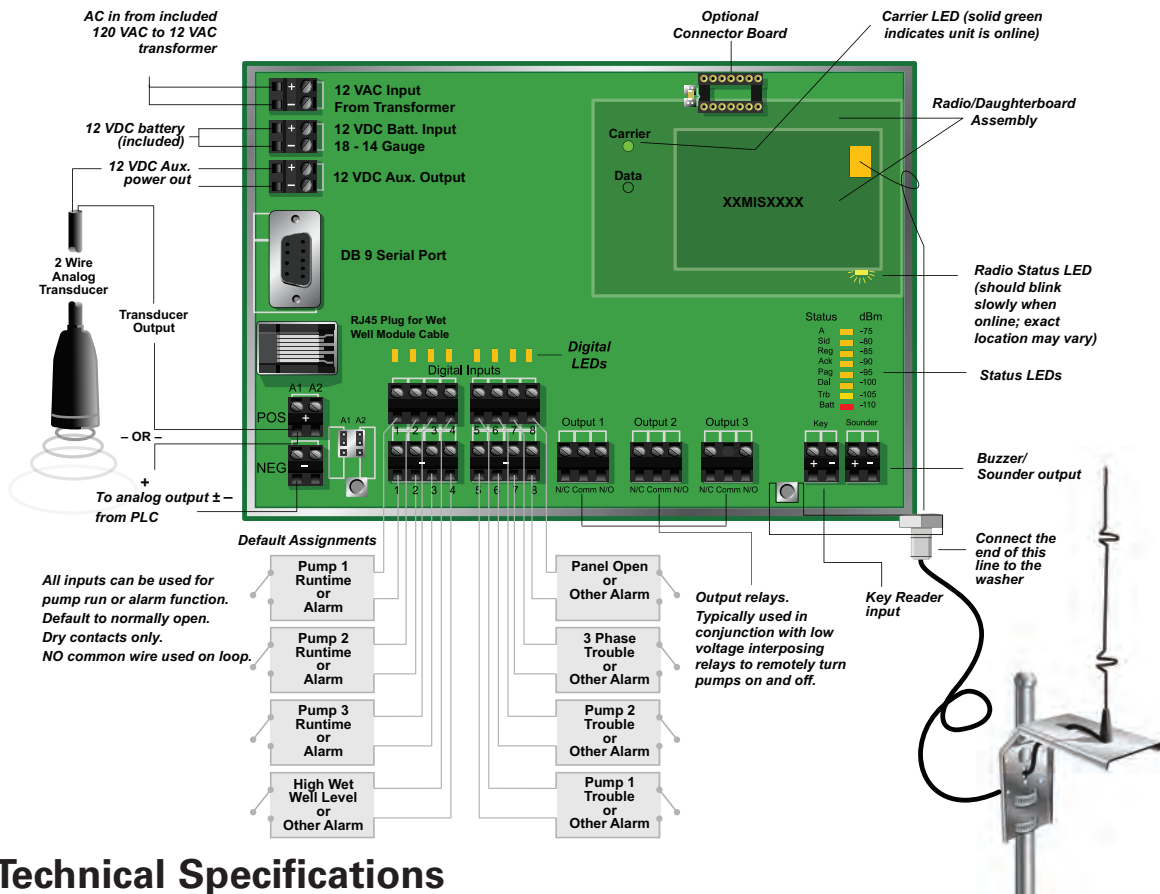
Data and reports are accessible on your secure web portal from any web-enabled device. Enhancements are included at no cost and are immediately available. Tabular and graphical reports can be used for CMOM programs, compliance reports and comparative studies. Historical data is archived and never discarded.

*NEMA 4X enclosure option shown*

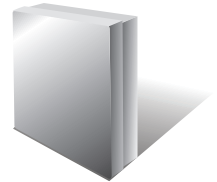


- **Easy to Install**
- **Secure Data Transmission**
- **Real-Time Alarms Assist Operations**
- **Streaming Data for Historical Trending**
- **Automatic or Manual Remote Control**
- **Managed Service Includes Everything You Need**
- **Data and Reports Accessible from Desktops, Smartphones and Tablets**

## Details



Outdoor NEMA 4X enclosure:  
Front sun shield  
13.25"l x 6.25"w x 13.75"h  
(with sun shield)



NEMA 1 enclosure:  
11.375"l x 3.5"w x 11.25"h  
Use indoors, wall mounting



Flatpak NEMA1 enclosure:  
10.5"l x 1.5"w x 7.75"h  
Use inside MCC cabinet

## Technical Specifications

### Hardware:

- 8 supervised digital inputs; 8 configurable to runtime/starts accumulators. Option board expands digital inputs to 16.
- 2 analog inputs: 4-20 mA or 0-5 V, 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).
- 2 pulse counter inputs (optional) for rainfall tipping bucket or flow meter.
- 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 11' 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 runtime and alarm inputs and analog alarm set points: real-time.
- Analog inputs: Every 2 minutes or real-time if 5%+ change occurs.
- Built-in telemetry inputs: reported hourly.

### Physical:

- Operating temperature -20F° to +160F°.

### 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 - M800 Series (PN 58X).
- Optional SCADA Integration OPC Link (PN 586) to client/server HMI.
- Optional Tank and Well Control Package (PN 587).

### Warranty:

RTUs include a 1 year manufacturing and material warranty.



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