Falcon
Wi-MGR
Wireless Sensor
Network Manager

RLE's wireless sensor network manager receives and aggregates signals from wireless transmitters. It then displays this data on its integrated web interface, which provides a centralized view of the sensors and their current readings, as well as direct alarm notification from any smartphone or web browser.

Since the Wi-MGR can relay the gathered information to facility monitoring systems, it streamlines communications and allows an unlimited variety of wireless equipment to communicate directly with a BMS or NMS. Newly added to the Wi-MGR – four hardwired digital inputs and two hardwired relay outputs. This expands the device's capabilities and allows the Wi-MGR to relay signals from traditional wired sensors and equipment.

While it can operate as a stand-alone device, the Wi-MGR can easily integrate into larger systems via SNMP, or building management systems through BACnet. Modbus protocols can serve as a network repeater to convey alarm status information to a centralized location.

The convenient wireless design reduces installation and system expansion costs frequently associated with hard-wired sensors and systems, and allows users to complete installation without the aid of an electrician.

Features
- Wireless design
- Wireless receivers & antennas are included for indoor open air transmission:
  - 418MHz antenna - receives transmissions up to 100 feet (30.5m)
  - 900MHz antenna - receives transmissions up to 1300 feet (396m)
- Additional wired inputs and outputs provides expanded functionality
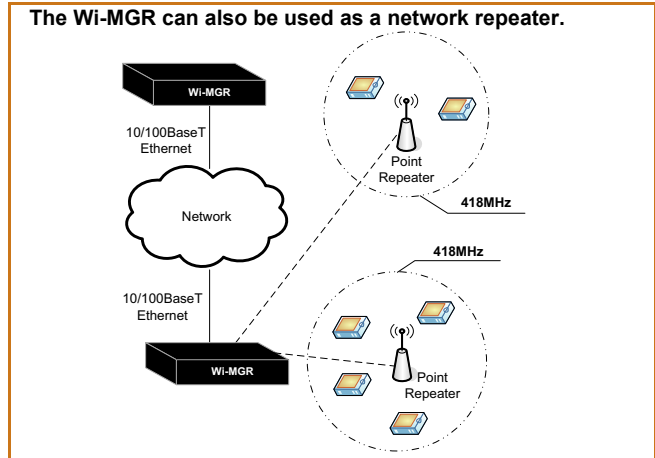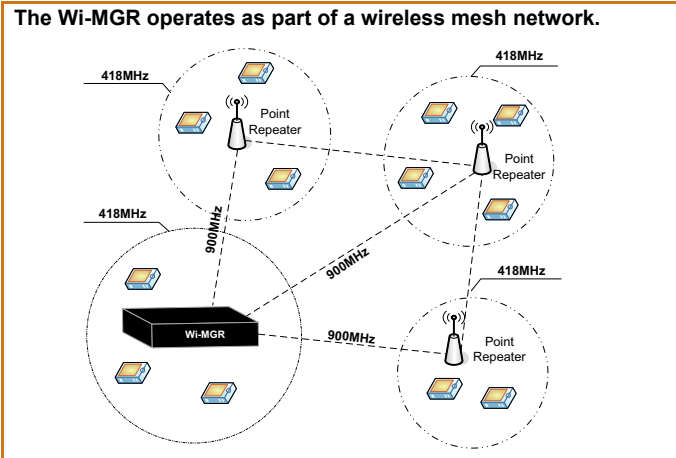
Benefits
- Easy, low cost installation
- Output readings as Modbus, BACnet, and SNMP for integration with building management systems (BMS) and network management systems (NMS)
- Web interface enables direct alarm notification and stand-alone operation

Use the Wi-MGR and RLE's Sensors to Monitor:
- Temperature
- Temperature/Humidity
- Water Leaks
- Power
- Equipment Status
- Third-party Devices

Monitoring & Notification

Suggested Wireless Sensor Network Manager Applications

The Wi-MGR operates as part of a wireless mesh network.

The Wi-MGR can also be used as a network repeater.

Wi-MGR Specifications

Power	24VAC @ 600mA max, 50/60Hz, 24VDC @ 600mA max.
Included Equipment	Wi-MGR, PSWA-DC-24 power supply, (1) 418MHz antenna and (1) 900MHz antenna, rack mount brackets
Wired Digital Inputs	Four (4) 24V, 10mA max. per channel
Wired Relay Outputs	Two (2) Dry Contact, Form C, 1A @ 24VDC resistive, 0.5A @ 120VAC
Maximum Number of Wireless Ports	400 - RLE strongly recommends not exceeding 150 sensors per Wi-MGR; point repeaters may be necessary

Communication Ports
    Ethernet
    EIA-232
    EIA-485
	
	10/100 BASE-T, RJ45 connector; 500VAC RMS isolation
	DB9 female connector; 9600 baud; No parity, 8 data bits, 1 stop bit
	1200, 2400, 9600 or 19200 baud (selectable); Parity: none, even or odd, 8 data bits, 1 stop bit

Protocols
    TCP/IP, HTML, TFTP, SNMP
    Modbus (EIA-485)
    Modbus TCP/IP UDP/IP
    BACnet/IP
    BACnet/MSTP
    Terminal Emulation (EIA-232)(
	
	V1: V2C MIB-2 compliant; NMS Manageable with Get
	Modbus Slave; RTU mode; Supports function codes 03
	Modbus Slave; TCP/IP transmission protocol
	ASHRAE STD 135-2004 Annex J
	EIA-485
	VT100 compatible

Indicators
    Network
    Status
    EIA-485 Status
	
	2 Green - Active & Speed
	1 Red LED
	2 Green - Transmit & Receive

Wireless Interface	418MHHz & 900MHz receivers for configuration, RP/SMA connectors for 418MHHz & 900MHz antennae
Login Security	Web Browser Access (Ethernet): 1 Web password Read Only; 1 Web password Read/Write

Data Trending
    Temperature
    Temperature/Humidity
	
	Records temperature data at 5 minute intervals; daily records; retains 30 days of information
	Records temperature and humidity data at 10 minute intervals; daily records; retains 30 days of information

Operating Environment
    Operating Temperature
    Humidity
    Altitude
	
	32ºF to 122ºF (0ºC - 50ºC)
	5% to 95% RH (Non-condensing)
	15,000 ft (4572m) max.

Storage Temperature	-4ºF to 185ºF (-20ºC - 85ºC)
Mounting	Desktop, rack mount (brackets included), wall mount (brackets available, sold separately)
Dimensions and Weight	9.7"W x 4.8"D x 1.6"H (24.6cmW x 12.2cmD x 4.1cmH), 2.3lb (1.04kg)
Certifications	ETL listed; conforms to UL 61010-1, EN 61010; certified to CSA C22.2 NO, 61010.1; RoHS compliant

5/2013

v3.5
(10/2015)

104 Racquette Drive
Fort Collins, CO 80524
800.518.1519
rletech.com