



Technical Overview

General Description

OEMSensors.com™ Wireless Range Extenders allow you to extend the coverage area (range) of your OEMSensors / Monnit wireless sensor network by repeating the signals between your wireless sensors and the wireless gateway.

Principle of Operation

On power up, the range extender will locate a gateway that has the “best” wireless signal available. The range extender then auto-configures itself to communicate and link with this gateway. After linking with the parent gateway, the range extender then establishes itself as a sub-network with its own dedicated channel to the gateway, relieving congestion from multi-sensor networks.

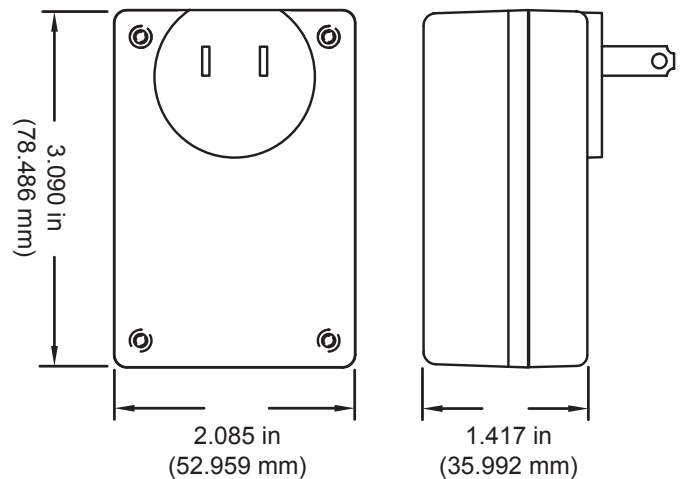
As data is generated in the range extender’s sub-network, it will intelligently store and forward this information to its parent gateway. This conserves battery power on the wireless sensors, increases network reliability, and intelligently manages network traffic to avoid cluttering.

When an OEMSensors / Monnit wireless sensor is locating a network, it will search for the “best” wireless signal. If the best signal is a range extender, the sensor will auto-configure itself to link with the range extender (no user intervention required). A range extender will permit a wireless sensor to link if one of the following conditions is met:

- The range extender already knows the wireless sensor and permits linking.
- The range extender confirms the wireless sensor’s permissions from its parent gateway.


OEMSensors.com Wireless Range Extender Product Features

- Extends the coverage area of your wireless sensor network.
- Supports 6 messages / minute.
- Built in memory can queue up to 14,000 messages for delivery to the gateway.
- AC powered, so no batteries needed.



Applications

- Facilities / Building Operations
- Property Management
- Warehouse Monitoring
- Hotel / Motel Monitoring
- Food Chain Monitoring
- Restaurants / Food Services
- Convenience Stores
- Asset Management
- Agriculture and Greenhouses

OEM Wireless Range Extender Specifications	
Power	
Standard Operating Range	100-240 VAC
Max Operating Range	90-264 VAC
Input Frequency	50/60Hz +/- 3Hz
Max Power Consumption	1.0W
Wireless Operation	
Maximum Wireless Devices Per Gateway	Up to 100 Total Wireless Devices Per Gateway
Maximum Sensors Per Range Extender	Up to 99 Wireless Sensors (Range Extender counts as a wireless device)
Message Storage / Memory	14,000 Messages
Recommended Network Communications	Up to 6 Messages Per Minute
Range Extender Communication Delay	Up to 30 Seconds (At number of recommended network communications)
Mechanical	
LEDs	Single LED H/W Status / Activity <ul style="list-style-type: none"> - Flashing Red/Green (unit is looking for a network to join) - Solid Red (no network found) - Solid Green (unit has joined a network) - Flashing Green (sensor data is intercepted and forwarded)
Enclosure	ABS Plastic UL94V-0 Flame Rating
Dimensions	3.09 x 2.085 x 1.417 in. (78.486 x 52.959 x 35.992 mm)
Weight	4.5 ounces
Environmental	
Operating Temperature	-40° to +85° C (-40° to +185° F)
Certifications	 900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).

For more product information, to get a quote, or to place an order, please contact our sales department at 801-561-5555 or visit us on the web at www.oemsensors.com.



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