



# SeniMax™ Data Logger and Gateway

Ultra-Low Power Sensing and Remote Wireless Communications

## Features

- **Ultra low power:** consuming only 20mW (average power) , 5.0 Watts peak power
- **Energy self sufficient:** powered by ambient light; when battery fully charged, operates more than three weeks in absence of light
- **Wireless protocols:**
  - IEEE 802.15.4  
(communication with SenSpot™ sensors)
  - CDMA, GPRS, HSPA+, Ethernet, WIFI  
(communication with remote servers)
- **Ingress protection:** IP67, weatherproof and protected against rain, snow, and UV exposure
- **Local logging:** minimum of two month in case of cellular data service error or unavailability
- **Coverage:** up to 250 SenSpot™ sensors
- **Synchronization precision:** 0.1 millisecond
- **Coverage area:** 0.6 miles radius (can be extended via signal repeaters)
- **Lightweight:** 3.3 lbs (1.5Kg)

## Applications

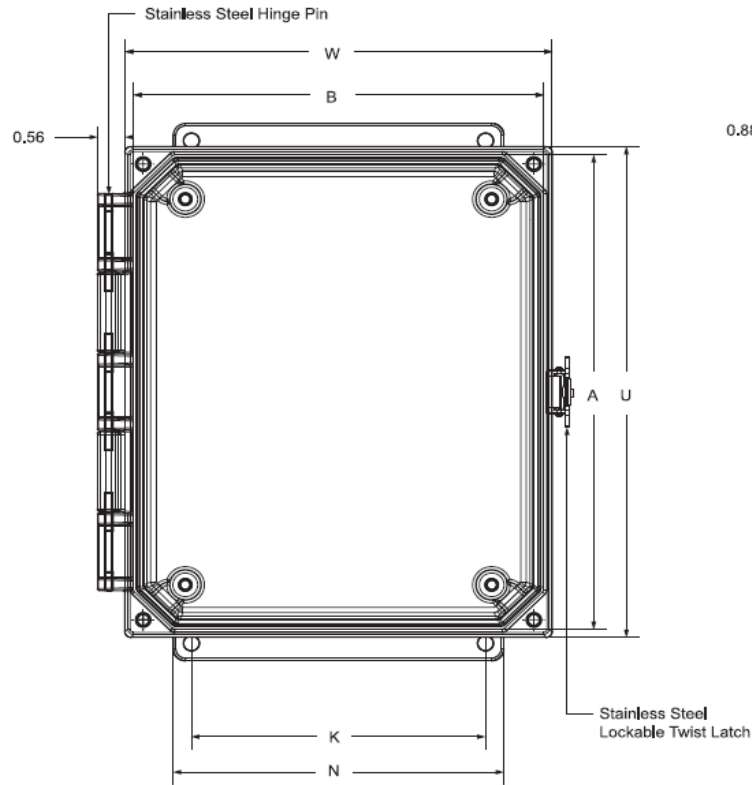
Resensys SeniMax is a low power and high performance data collector and remote communication device. SeniMax communicates with SenSpot sensors using IEEE802.15.4 protocol. Additionally SeniMax has capability to communicate the aggregated data of SenSpot sensors to any remote data center using Ethernet, WIFI or cellular data services.



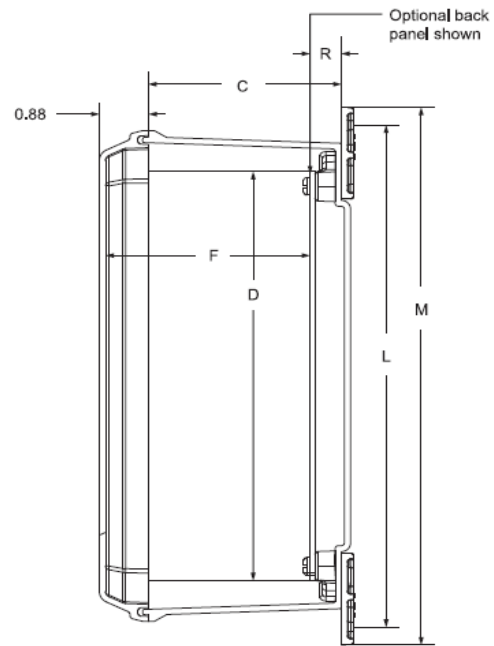
In a remote measurement and monitoring architecture, SeniMax is the gateway for transmitting data of SenSpot sensors to a remote monitoring center. SeniMax receives data of Resensys SenSpot sensors using its wireless IEEE802.15.4 interface, and communicates it to a remote server using cellular data services (GPRS, CDMA, HSPA, etc). A single SeniMax can cover up to 250 SenSpot sensors in its communication range.

SeniMax is ideal solution in applications of distributed sensing and data acquisition where there is no access to main power or communication infrastructures. Particular applications include: Structural integrity monitoring for highway bridges, construction projects, pipelines, etc.

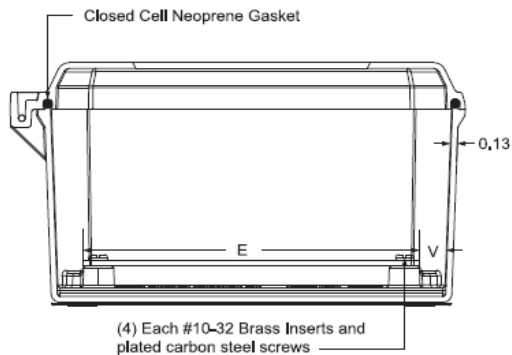
## Dimensions (in inch)



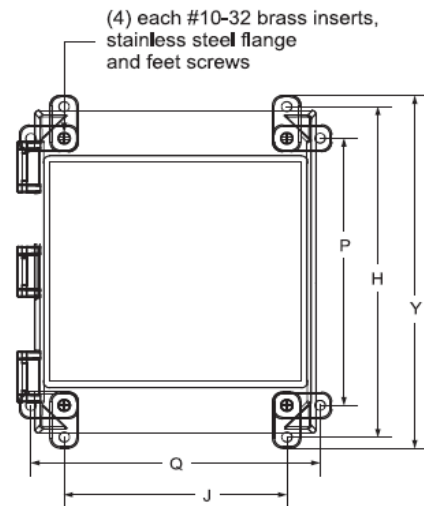
**Front View**



**Side View**



**End View**



**Rear View**

Overall Dimensions			Panel Size		Panel Centers		Flange Mounting Centers			
A	B	C	D	E	F	S	Z	L	K	M
8.05	6.27	4.13	6.75	4.88	4.11	6.25	4.25	8.88 / 8.75	4.00	9.62

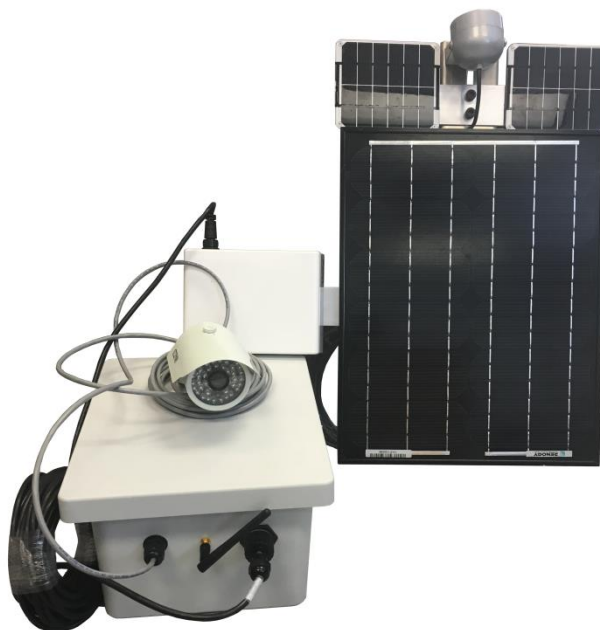
## Features

- **Satellite Data Link:** Work almost everywhere, especially the places without cellular coverage
- **Energy Self-sufficient:** Powered by Li-ion batteries and charged by solar panels. No need for maintenance.
- **Wireless Protocols:**
  - IEEE 802.15.4 (for communication with SenSpot™ sensors)
  - WIFI (for communication with remote monitoring center)
- **Ingress Protection:** IP65, weatherproof and protected against rain, snow, and UV exposure
- **Coverage:** up to 250 SenSpot™ sensors
- **Weight:** 3.5Kg (7.8 lbs.)
- **Customization:** Extra functions (e.g. the camera in the picture shown) can be added per user's request.

## Applications

Resensys SeniMax is a low power and high performance data collector and remote communication device. SeniMax communicates with SenSpot sensors using IEEE802.15.4 protocol. Additionally SeniMax has capability to communicate the aggregated data of SenSpot sensors to any remote data center using WI-FI.

In a remote measurement and monitoring architecture, SeniMax is the gateway for transmitting data of SenSpot sensors to a remote monitoring center. SeniMax receives data of Resensys SenSpot sensors using its wireless interface, and communicates it to a

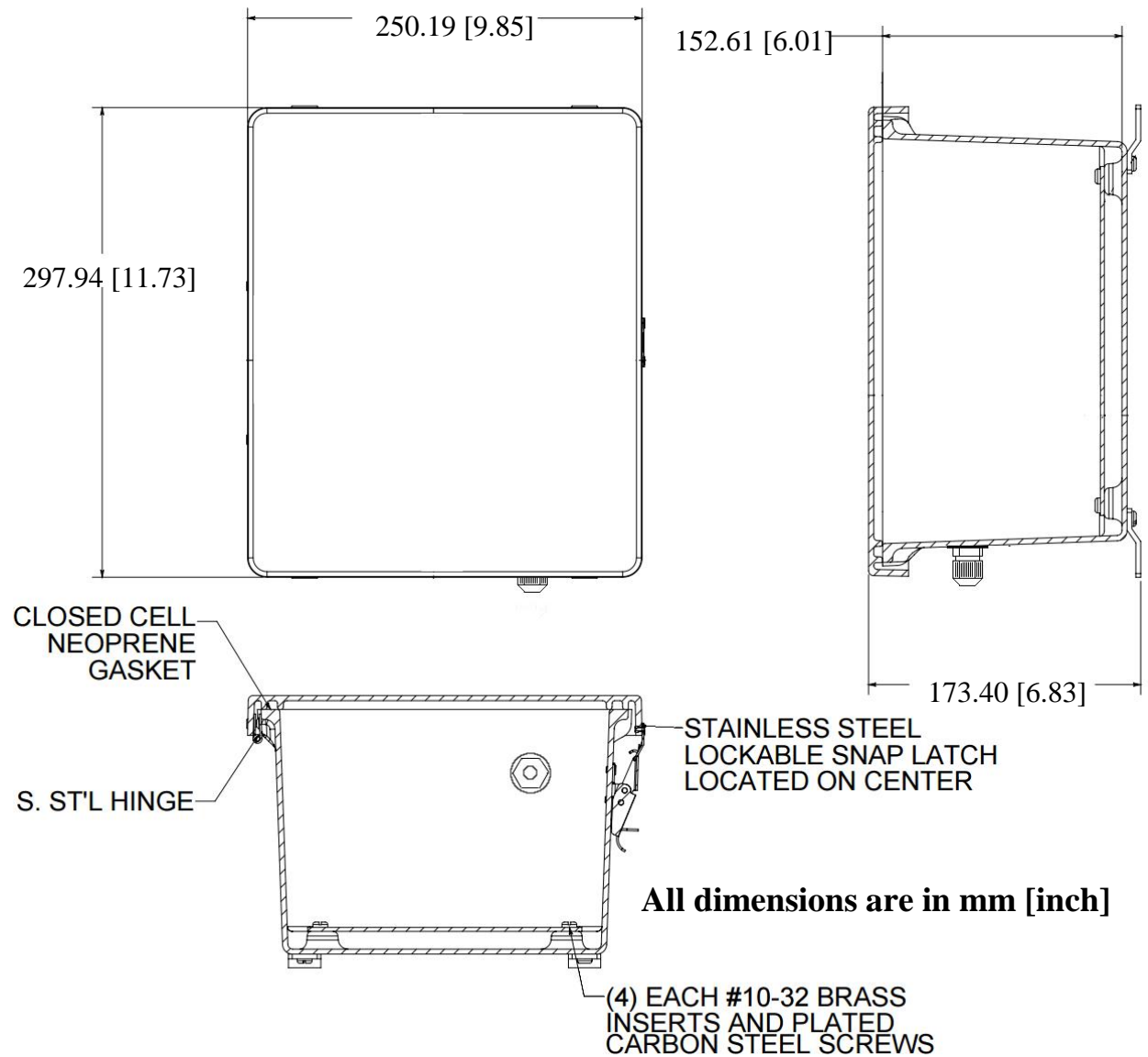


remote server. A single SeniMax can cover up to 250 SenSpot sensors in its communication range.

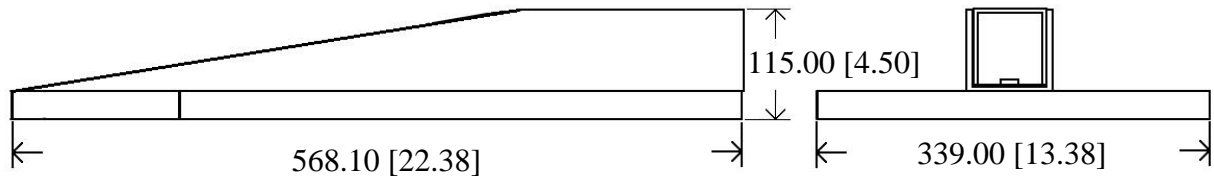
SeniMax is ideal solution in applications of distributed sensing and data acquisition where there is no access to main power or communication infrastructures. Particular applications include: Structural integrity monitoring for highway bridges, construction projects, pipelines, etc.

## Dimensions

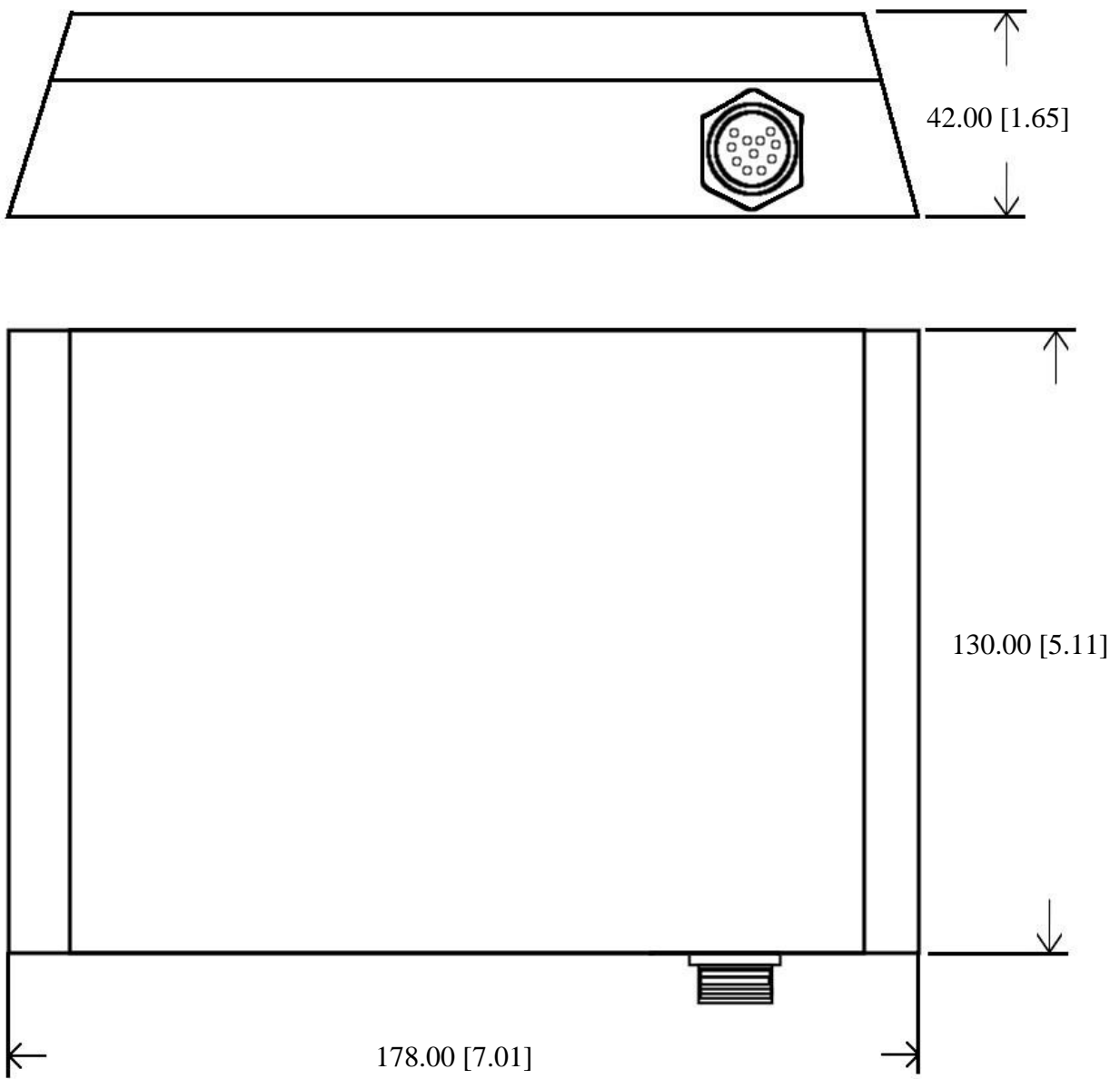
### Transceiver



## Solar panel



## Modem



### Features

- **Ultra-low power:** consuming only 20mW
- **Energy self-sufficient:** powered by ambient light; when battery fully charged, operates more than three weeks in absence of light
- **Wireless protocols:**
  - IEEE 802.15.4 (for communication with SenSpot™ sensors)
- **Ingress Protection:** IP65, weatherproof and protected against rain, snow, and UV exposure
- **Coverage:** up to 250 SenSpot™ sensors
- **Lightweight:** 1.5Kg (3.3 lbs.)

### Applications

Resensys SeniMax is a low power and high performance data collector and remote communication device. SeniMax communicates with SenSpot sensors using IEEE802.15.4 protocol. Additionally SeniMax has capability to communicate the aggregated data of SenSpot sensors to any remote data center using the Ethernet port.

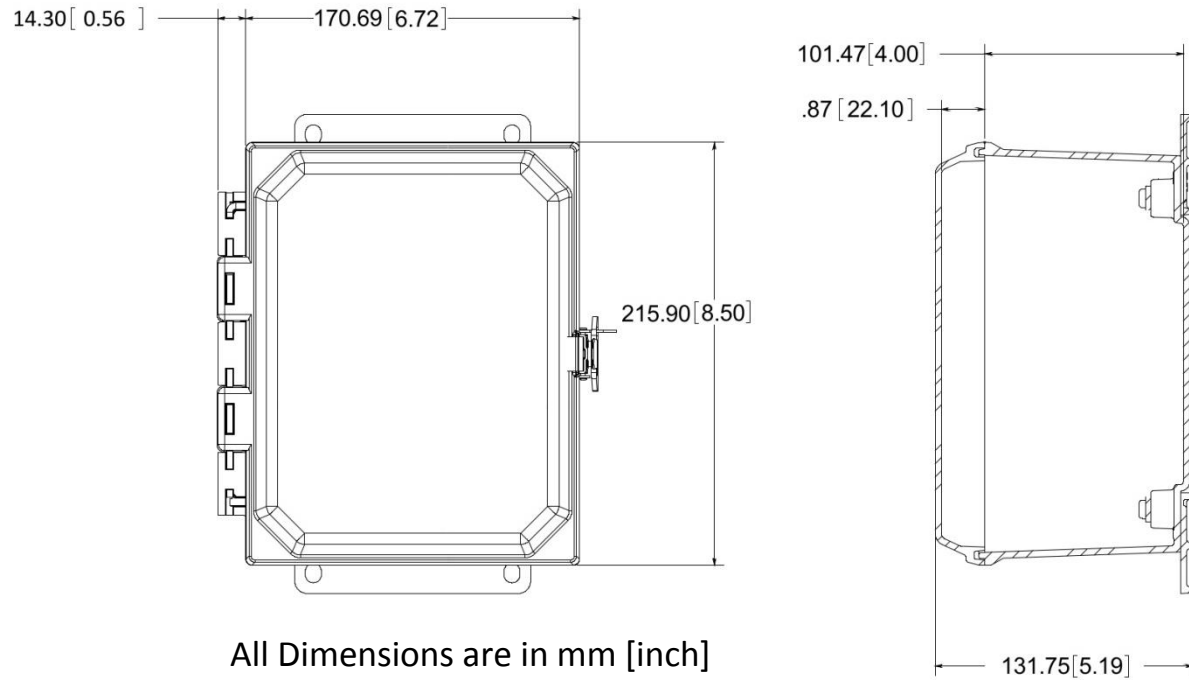
In a remote measurement and monitoring architecture, SeniMax is the gateway for transmitting data of SenSpot sensors to a remote monitoring center. SeniMax receives data of Resensys SenSpot sensors using its wireless interface, and communicates it to a remote server through the Ethernet port. A single SeniMax can over up to 250 SenSpot sensors in its communication range.

SeniMax is ideal solution in applications of distributed sensing and data acquisition where there is no access to main power or



communication infrastructures. Particular applications include: Structural integrity monitoring for highway bridges, construction projects, pipelines, etc.

## Dimensions: Main Box



### Features

- **Ultra-low power:** consuming only 20mW
- **Energy self-sufficient:** powered by a Li-ion battery; when battery fully charged, operates more than three weeks
- **Wireless protocols:**
  - IEEE 802.15.4 (for communication with SenSpot™ sensors)
  - WIFI (for communication with remote monitoring center)
- **Ingress Protection:** IP66, weatherproof and protected against rain, snow, and UV exposure
- **Coverage:** up to 250 SenSpot™ sensors
- **Lightweight:** 0.5Kg (1.1 lbs.)

### Applications

Resensys SeniMax is a low power and high performance data collector and remote communication device. SeniMax communicates with SenSpot sensors using IEEE802.15.4 protocol. Additionally SeniMax has capability to communicate the aggregated data of SenSpot sensors to any remote data center using WI-FI.

In a remote measurement and monitoring architecture, SeniMax is the gateway for transmitting data of SenSpot sensors to a remote monitoring center. SeniMax receives data of Resensys SenSpot sensors using its wireless interface, and communicates it to a remote server. A single SeniMax can cover up to 250 SenSpot sensors in its communication range.



SeniMax is ideal solution in applications of distributed sensing and data acquisition where there is no access to main power or communication infrastructures. Particular applications include: Structural integrity monitoring for highway bridges, construction projects, pipelines, etc.



## Dimensions

