



Features & Options

- Up to 275 foot in-building range*
- Barometric pressure and optional light level sensing
- Approximate 5 year battery life with 5 minute transmit rate
- Customizable transmission rate and transmission power for optimum battery life and reliability of each sensor
- Gateway provides data to the BAS via multiple communication options (TCP/IP, JSON, BACnet IP)

BAPI's Wireless Outside Air Temp/Humidity 900 MHz Sensor features a UV-resistant plastic shield and stainless steel replaceable filter. It comes in a IP66-rated BAPI-Box enclosure with Barometric pressure and optional light level sensing.

The unit has an estimated battery life of 5 years with the default transmit rate of once every 5 minutes.** The transmitted data is picked up by a Gateway and supplied directly to the BAS via multiple communication options (TCP/IP, JSON, BACnet IP). The unit is capable of storing all data in memory until it receives a successful reception signal from the Gateway, so that no data is lost during a communication interruption. Transmissions can also be triggered by a temperature change with a user-adjustable threshold. The system uses "smart logic" to find and secure a clean frequency channel rather than "frequency hopping".



Wireless Outside Air Temp and Humidity Sensor

Specifications

Power: Two 3.6V Lith. batteries, 2,600 mAh, ~5 year battery life**

Temperature Sensor: Semiconductor Band Gap, $\pm 0.3^{\circ}\text{C}$ ($\pm 0.54^{\circ}\text{F}$) @ 20 to 40°C (68 to 104°F)

Temperature Transmission Range: -40 to 185°F (-40 to 85°C)

Humidity Sensor: Capacitive Polymer, $\pm 2\% \text{RH}$ @ 25°C (77°F), 20 to 80%RH

Humidity Transmission Range: 0 to 100%RH

Barometric Pressure Sensor: MEMS Technology, $\pm 2 \text{ mbar}$ @ 25°C (0.40" H₂O)

Barometric Pressure Operational Range: 30 to 120 Kpa

Light Level Sensing Accuracy: 10 Lux + 10% of reading.

Light Level Sensing Range: 0 to 64,000 lux

Transmission Distance: Up to 275 feet*

Frequency: 900 MHz (4 Channels, 7 MHz Spacing)

Transmission Interval: 5 minute default, user adjustable

Transmit Power: 0 dBm default, +5 dBm max

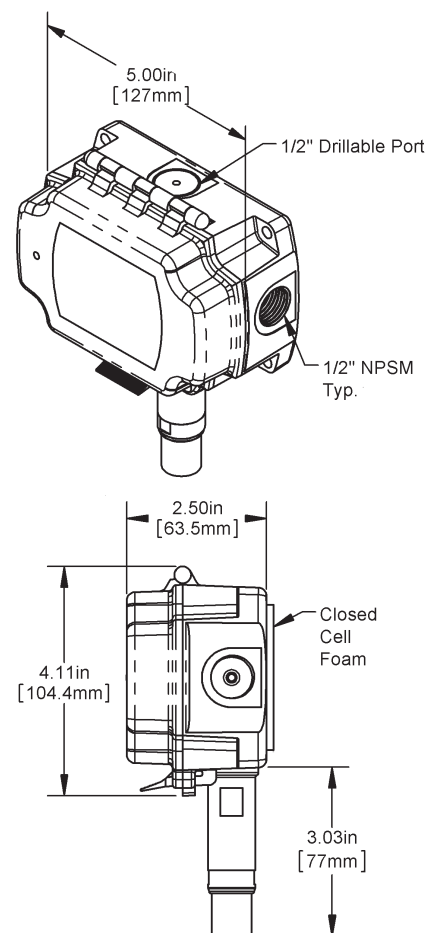
Receiver Sensitivity: -101 dBm

Enclosure Rating, Material and Material Rating: IP66, UV-Resistant Polycarbonate, UL94 V-0

Environmental Operation Range: Temp: -40 to 185°F (-40 to 85°C) • Humidity: 0 to 100% RH

*Actual in-building transmission distances will vary depending upon building construction, transmission power setting and other factors.

**Actual battery life will vary depending upon transmission interval setting and transmission power setting.





Ordering Information

BA/WTH900-O-BB:

Outside Air Temp/Humidity and Barometric Pressure Sensor

BA/WTH900-LL-O-BB:

Outside Air Temp/Humidity, Light Level and Barometric Pressure Sensor

BA/LI3620: 3.6V Lithium Battery

See end of Section F for list pricing.

900 MHz Gateway

The Gateway receives the data from one or more sensors up to 275 feet away, and provides the data to the BAS via multiple communication options (TCP/IP, JSON, BACnet IP). The Gateway also sends a confirmation signal to each sensor upon a successful reception of data, allowing the sensor to release the data that it has stored in memory so that no data is lost during a communication interruption.

