



Features & Options

- Up to 275 foot in-building range*
- 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)



Wireless Duct Temperature and Humidity Sensor

BAPI's Wireless Duct Temperature and Humidity 900 MHz Sensor features a rugged IP66-rated BAPI-Box enclosure.

The unit has an estimated battery life of 5 years with the default transmit rate of once every 5 minutes.** The transmitted temp, humidity and Barometric pressure 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. Each sensor has customizable transmission rate and transmission power for optimum battery life and reliability. Additional transmissions can 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".

Specifications

Power: Two 3.6V Lithium 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 $^{\circ}\text{C}$ (68 to 104 $^{\circ}\text{F}$)

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

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

Transmitted Temperature Range: -40 to 185 $^{\circ}\text{F}$ (-40 to 85 $^{\circ}\text{C}$)

Transmission Distance: Up to 275 feet*

Environmental Operation Range:

Temp: -40 to 185 $^{\circ}\text{F}$ (-40 to 85 $^{\circ}\text{C}$)

Humidity: 0% to 100% RH, non-condensing

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

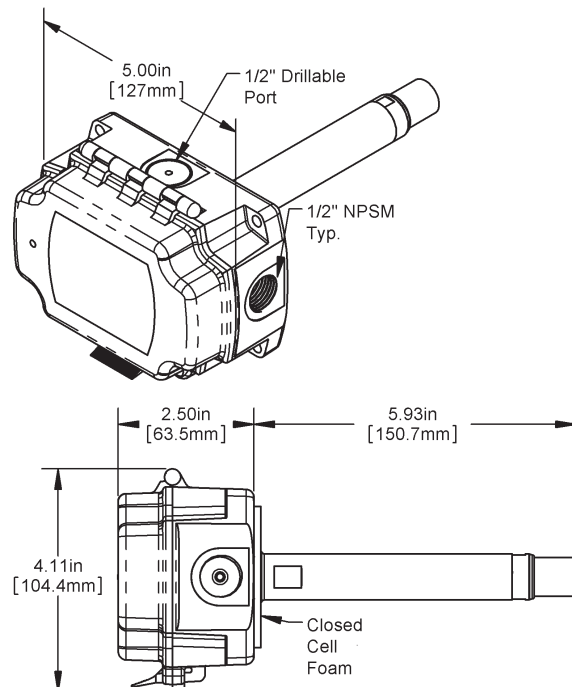
Frequency: 900 MHz (4 Channel, 7 MHz Spacing)

Transmission Interval:

5 minute default, user adjustable

Transmit Power: 0 dBm default, +5 dBm max

Receiver Sensitivity: -101 dBm



*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-D-BB ... Wireless Duct Temp. & Humidity Sensor, 5" Probe Length

BA/LI3620 3.6V Lithium Battery

See end of Section F for list pricing.

900 MHz Gateway

The Gateway receives the data from 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.

