Remote Probe Sensor

900 MHz Wireless System

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)

BAPI’s Wireless Remote Temperature 900 MHz Sensor features a 1.75” long SS probe with either Plenum-Rated Cable or FEP-Jacketed Cable and a watertight BAPI-Box Enclosure. Standard lead lengths are 5’, 10’, 15’, 20’ and 25’.

The unit has an estimated battery life of 5 years with the default transmit rate of once every 5 minutes.** The transmitted temperature 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 Accuracy:
±0.45°F (±0.25°C), 32 to 158°F (0 to 70°C)

Barometric Pressure Sensor Accuracy:
±2 mbar @ 25°C (0.40”H₂O)

Transmitted Temp Range:
-40 to 185°F (-40 to 85°C)

Transmission Distance: Up to 275 feet*

Environmental Operation Range:
Temp: -40 to 185°F (-40 to 85°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**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BA/WT900-RPP-5-BB</td>
<td>Unit with Plenum-Rated Cable, 5’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPP-10-BB</td>
<td>Unit with Plenum-Rated Cable, 10’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPP-15-BB</td>
<td>Unit with Plenum-Rated Cable, 15’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPP-20-BB</td>
<td>Unit with Plenum-Rated Cable, 20’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPP-25-BB</td>
<td>Unit with Plenum-Rated Cable, 25’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPFEP-5-BB</td>
<td>Unit with FEP-Jacketed Cable, 5’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPFEP-10-BB</td>
<td>Unit with FEP-Jacketed Cable, 10’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPFEP-15-BB</td>
<td>Unit with FEP-Jacketed Cable, 15’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPFEP-20-BB</td>
<td>Unit with FEP-Jacketed Cable, 20’ Leads</td>
</tr>
<tr>
<td>BA/WT900-RPFEP-25-BB</td>
<td>Unit w/ FEP-Jacketed Cable, 25’ Leads</td>
</tr>
</tbody>
</table>

*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.