

BAPI WIRELESS OSA TEMPERATURE & HUMIDITY TRANSMITTERS

BA/WT-O, BA/WTH-O

DESCRIPTION

The BAPI BA/WT-O, BA/WTH-O wireless outside air temperature and humidity transmitters sense outside conditions and transmit them with a battery-operated 418 MHz transmitter. The sensor / transmitter is mounted in a NEMA 4 (IP66) enclosure with a 2.58" stainless steel temperature probe or a 1.58" temperature / humidity probe. The transmitter has an open air range of 100 feet. The battery has an estimated eight-year life with transmission updates approximately every 10 seconds. Other duct insertion probe lengths are available.

OPERATION/APPLICATION

Temperature and humidity data is transmitted via 418 MHz to a receiver. Minimum in-building range is 100 feet and battery life is estimated to be eight years with high-capacity 3.6 VDC lithium batteries (at a 10-second transmit interval). Each transmitter has a unique address and includes built-in error detection. Each variable sent by the transmitter is converted by a BAPI analog output module to a voltage, current, or resistance signal for input to a controller or monitor. The unit can also be set up to send low-battery information to the controller.

FEATURES

- **Wireless temperature and humidity sensing**
- **Eight-year battery life**
- **Built-in error detection**
- **Repeater available for 1000-foot range**
- **Output modules available with signal outputs of voltage, current, or resistance**
- **Stainless steel temperature probe**
- **PVC weather shield (temperature model)**
- **Sintered filter (temperature / RH model)**
- **Two-year warranty**



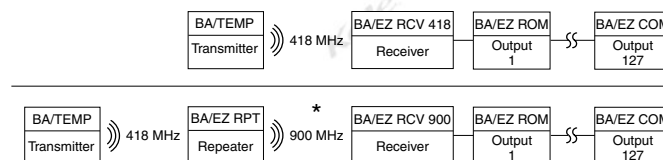
BA/WT-O



BA/WTH-O



SYSTEM LAYOUT



* The transmission range from repeater to receiver is 1000 feet.

SPECIFICATIONS

DEVICE OPERATION

Supply Power	3.6 VDC, Battery Power Only
Batteries	Two AA 3.6V lithium batteries (included)
Battery Life	8 years @ 20 second intervals
Sensor Type	Temperature, 10K-2 thermistor
Optional	Humidity, Capacitive
Transmitted Range Value	
Temperature	Overall Range, -40° to 185°F (-40° to 85°C)
Humidity	Overall Range 0-100% RH
Accuracy	Transmitted Accuracy
Temperature	Thermistor, 10K type 2, ±0.5°F (±0.32°C)
RH	2% Capacitive, 10-90% @ 77°F
Indication	LED on Transmit
A/D Resolution	10 bit (1024 counts)
Mounting	Four screws direct to outside wall
RH Probe	2.4"L x 0.95"Ø weather shield
Temp Probe	2.4"L x 1/4"Ø weather shield

RADIO TRANSMITTER

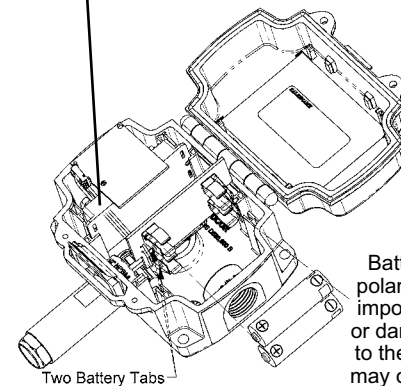
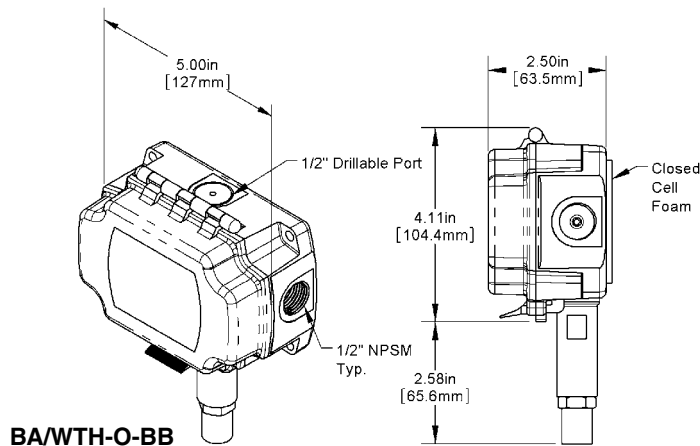
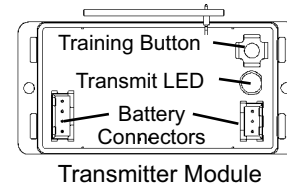
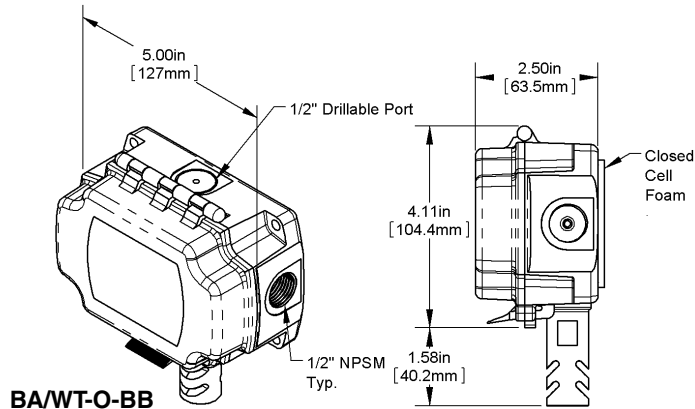
Protocol	Proprietary (Point Six)
Frequency	418 MHz
Modulation	Frequency Modulation
Transmit Power	1mW (0 dBm)
Open Air Range	100' (30 m)
Transmission Time	20ms
Transmission Interval	Can be factory programmed
Temp. Only	20 seconds standard (Can be factory programmed 10-300s)
RH and Temp.	40 seconds standard (Can be factory programmed 20-300s)
Antenna	Internal
Channels	1
Device Addresses	100 transmissions per minute
Programming	Push button in field
Repeater Capable	Yes
Compliance	RoHS
Temp. Only	FCC ID# T4F060811TEMP
RH and Temp.	FCC ID# T4F060811RH
Operating Temperature	-40° to 185°F (-40° to 85°C)
RH Transmitter	-22° to 158°F (-30° to 70°C)
Operating Humidity	0% to 100% RH, Non-condensing
Construction	UV-Resistant Polycarbonate, UL94 V-0
Enclosure Rating	IP-66
Dimensions	4.1"H x 5.0"W x 2.5"D (10.4 x 12.7 x 6.4 cm)
Weight	1 lb (0.45 Kg)
Warranty	2 years

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DIMENSIONS AND WIRING

Note: Batteries included



INSTALLATION / MOUNTING

Install the enclosure horizontally (probe down) at the highest practical elevation on the north side of a building or in permanent shade. The transmitter should not be installed inside a metal enclosure. Installing the batteries starts the wireless transmission immediately. Pushing the button of the transmitter and the button of the associated output module simultaneously will establish an address link between the two units. This should be done one at a time to avoid cross-addressing.

ORDERING INFORMATION

MODEL

BA/WT-O-BB
BA/WTH-O-BB

DESCRIPTION

OSA temperature probe, 418 MHz transmitter, batteries included
OSA temperature and humidity probe, 418 MHz transmitter, batteries included

RELATED PRODUCTS

BA/LI3620
BA/RCV418-EZ
BA/RCV900-EZ
BA/RPT49-EZ

AA lithium 3.6V battery, two required for each transmitter
BAPI receiver for 418 MHz transmitter signals to RS485
BAPI receiver for RPT repeater 900 MHz signals to RS485
9-15 VDC power BAPI repeater for 418 MHz signals with repeat at 900 MHz