

WIRELESS

BAPI WIRELESS ROOM TEMPERATURE & HUMIDITY TRANSMITTERS BA/BS2-WT(H)

DESCRIPTION

The BAPI BA/BS2-WT(H) wireless room temperature and humidity transmitters measure in-room conditions with a battery operated 418 MHz transmitter. The sensor / transmitter is mounted in a BAPI-Stat 2 style enclosure and has an open air range of 100 feet. The battery has an estimated eight-year life with transmission updates approximately every ten seconds.

OPERATION/APPLICATION

Temperature and humidity data is transmitted via 418 MHz RF to a receiver or repeater. Open air range is 100 feet, and battery life is estimated to be eight years with high-capacity 3.6V 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.

FEATURES

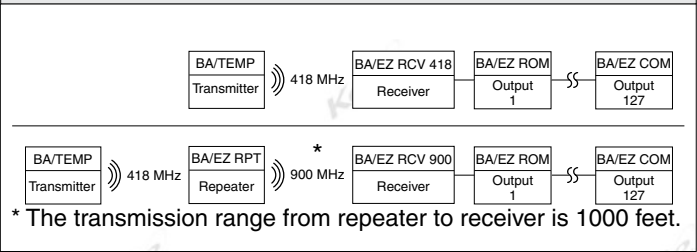
- **Wireless temperature and humidity sensing**
- **Eight-year battery life**
- **Built-in error detection**
- **Repeater available for 1000-foot range**
- **Output modules available with signal outputs of voltage, current, or resistance**
- **BAPI-Stat 2 enclosure**
- **Two-year warranty**



BA/BS2-WT



SYSTEM LAYOUT



SPECIFICATIONS

DEVICE OPERATION

| | |
|-------------------------|---|
| Supply Voltage | 3.6 VDC, Battery power only |
| Batteries | Three AA 3.6V lithium batteries (Included) |
| Battery Life | 8 years @20 second intervals |
| Sensor Type | Temperature, 10K-2 thermistor internal |
| Optional | Humidity, Capacitive, internal |
| Optional | Setpoint, POT internal |
| Optional | Override, Push button |
| Transmitted Range Value | |
| Temperature | -40° to 185°F (-40° to 85°C) |
| Opt. Humidity | 0-100% RH |
| Opt. Setpoint | Sliding wand 0-100% position |
| Opt. Override | Side Button, On/Off (Momentary) |
| 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 | Direct wall or single box |
| Wiring | None |
| Operating Temperature | 32° to 140°F (0° to 60°C) |
| Operating Humidity | 5% to 95% RH non-condensing |
| Construction | ABS Plastic, UL94 V-0 |
| Enclosure Rating | NEMA-1, |
| Dimensions | 4.5"H x 2.75"W x 1.1"D (11.4 x 7.0 x 2.7 cm) |
| Weight | 0.25 lb (0.11 Kg) |
| Warranty | 2 year |

RADIO TRANSMITTER

| | |
|------------------------|--|
| Protocol | Proprietary (Point Six) |
| Frequency | 418 MHz |
| Modulation | Frequency Modulation |
| Transmit Power | 1mW (0 dBm) |
| Receiver Sensitivity | N/A |
| Open Air Range | 100 ft (30m) |
| Low Battery Indication | None |
| Transmission time | 20ms |
| Transmission Interval | 20 seconds standarD (Can be factory programmed 10-300 s) |
| Antenna | Internal |
| Channels | One |
| Device Addresses | 100 transmitters within 100' |
| Programming | Push button in field |
| Repeater Capable | Yes, (can increase open air range x10) |
| Compliance | FCC ID# T4F061213RSO, RoHS |

BAPI WIRELESS ROOM TEMPERATURE & HUMIDITY TRANSMITTERS BA/BS2-WT(H)



WIRING

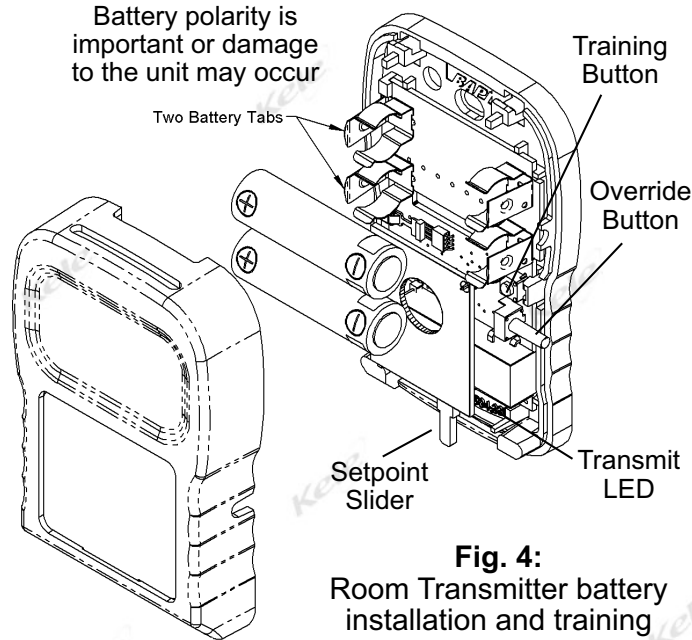


Fig. 4:
Room Transmitter battery installation and training

Note: Batteries included

Note: The unit starts transmitting as soon as the batteries are installed.

INSTALLATION / MOUNTING

Install as you would any wall sensor, about 4' to 5' from the floor. The box should not be installed inside a metal box. Installing the batteries starts the RF transmission immediately. Pushing the training button of the transmitter and the button of the associated output module simultaneously will confirm the address link between the correct units. This should be done one at a time to avoid cross-addressing.

ORDERING INFORMATION

| MODEL | DESCRIPTION |
|---------------|---|
| BA/BS2-WT | Room temperature battery transmitter, 418 MHz at 1 mW, (batteries included) |
| BA/BS2-WT-O | Room temperature with push button, 418 MHz 1mW, (batteries included) |
| BA/BS2-WT-S | Room temperature with setpoint adjust, 418 MHz 1mW, (batteries included) |
| BA/BS2-WT-SO | Room temperature with push button and set point adjust, 418 MHz 1mW, (batteries included) |
| BA/BS2-WTH | Room temperature and humidity battery transmitter, 418 MHz @ 1 mW, (batteries included) |
| BA/BS2-WTH-S | Room temperature and humidity battery transmitter with setpoint adjust, 418 MHz @ 1mW, (batteries included) |
| BA/BS2-WTH-O | Room temperature and humidity battery transmitter with override button, 418 MHz @ 1mW, (batteries included) |
| BA/BS2-WTH-SO | Room temperature and humidity battery transmitter with setpoint and override, 418 MHz @ 1mW, (batteries included) |

RELATED PRODUCTS

| | |
|--------------|---|
| BA/LI3620 | AA lithium 3.6V battery, two required for each transmitter |
| BA/RCV418-EZ | BAPI receiver for 418 MHz transmitter signals to RS485 |
| BA/RCV900-EZ | BAPI receiver for RPT repeater 900 MHz signals to RS485 |
| BA/RPT49-EZ | 9-15 VDC power BAPI repeater for 418 MHz signals with repeat at 900 MHz |