WIRELESS

BAPI WIRELESS IMMERSION TEMPERATURE TRANSMITTER
BA/WT-I

DESCRIPTION

The **BAPI wireless immersion temperature transmitter BAWT-I-4** sense in-pipe conditions and send data with a battery operated 418 MHz transmitter. The sensor / transmitter is mounted in a NEMA 4 (IP66) enclosure with a 1/2" NPT stainless steel temperature immersion probe suited for four inch well insertion. 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 immersion probe lengths are available.

OPERATION/APPLICATION

Temperature data is transmitted via 418 MHz to a receiver. Minimum open air 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.
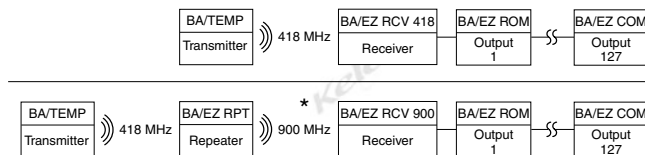
FEATURES

- **Wireless temperature sensing**
- **Eight-year battery life**
- **Built-in error detection**
- **Repeater available for 1000-foot range**
- **Output modules available with voltage, current, or resistance outputs**
- **Stainless steel temperature probe**
- **Standard 316-stainless steel wells available**
- **Two-year warranty**

BA/WT-I-4

SYSTEM LAYOUT

| BA/TEMP Transmitter |))) 418 MHz | BA/EZ RCV 418 Receiver | BA/EZ ROM Output 1 | BA/EZ COM Output 127 |

| BA/TEMP Transmitter |))) 418 MHz | BA/EZ RPT Repeater | *))) 900 MHz | BA/EZ RCV 900 Receiver | BA/EZ ROM Output 1 | BA/EZ COM Output 127 |

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

SPECIFICATIONS

DEVICE OPERATION

Supply Voltage	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
Transmitted Range Value	-40° to 185°F (-40° to 85°C)
Accuracy	Thermistor, 10K type 2, ±0.5°F (±0.32°C)
Indication	LED on Transmit
A/D resolution	10 bit (1024 counts)
Mounting	1/2" NPT Direct to well
	2" probe 1.5"L from tip to 1/2" NPT thread, 1/4" diameter
	4" probe 3.5"L from tip to 1/2" NPT thread, 1/4" diameter
	8" probe 7.5"L from tip to 1/2" NPT thread, 1/4" diameter
Wiring	None
Operating Temperature	-40° to 185°F (-40° to 85°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	1.0 lb (0.45 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)
Antenn	Internal
Channels	One
Device Addresses	100 transmissions per minute
Programming	Push button in field
Repeater Capable	Yes, (can increase open air range x10)
Compliance	RoHS
Temp. Only	FCC ID# T4F060811TEMP

DIMENSIONS AND WIRING

Note: Batteries included

Training Button
Transmit LED
Battery Connectors
Transmitter Module

BA/WT-I

5.00in [127mm]
1/2" Drillable Port
1/2" NPSM Typ.
2.50in [63.5mm]
Per Order See Ordering Grid
4.11in [104.4mm]
Ø.25in [6.4mm]

Battery polarity is important or damage to the unit may occur.

Two Battery Tabs
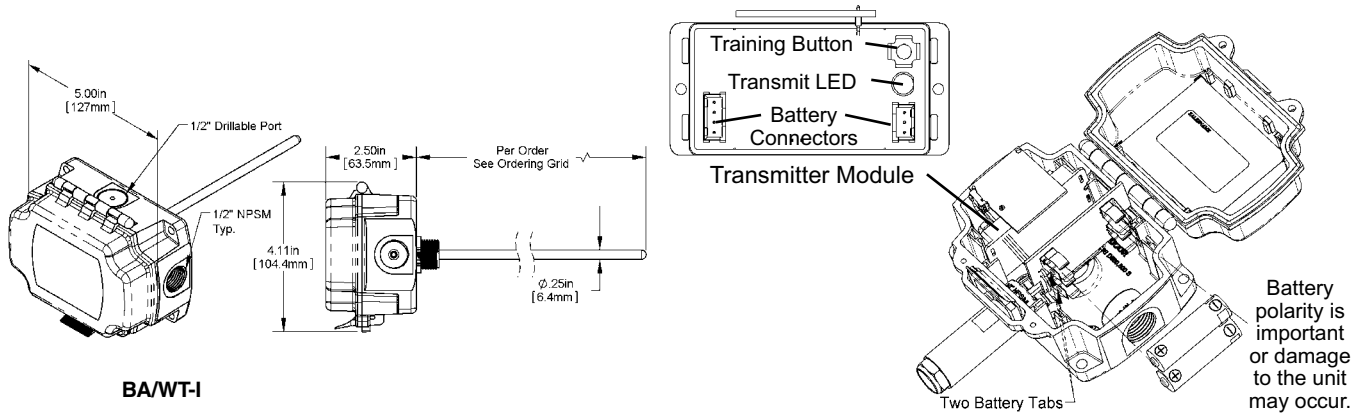
INSTALLATION / MOUNTING

Install the probe horizontally or vertically at the highest practical elevation into the pipe. The enclosure should not be installed inside a metal box or inverted. 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	DESCRIPTION
BA/WT-I-4	Four-inch immersion temperature probe, 418 MHz transmitter, (batteries included) (wells not 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
WS-4	SS well used with 2" BAPI immersion sensor
WS-6	SS well used with 4" BAPI immersion sensor
WS-9	SS well used with 8" BAPI immersion sensor