418 MHz Wireless System

# Features & Options

- Reduces Temperature "Spikes" Caused By Opening the Cooler or Freezer Door
- Wirelessly Transmits the Temperature
- 100 Foot In-Building Range, Extendable to 1,000 Feet with a Repeater\*
- Receiver & Output Modules Convert the Wireless Data to Voltage, Current or Thermistor Resistive
- Buffer Chamber is 304 Stainless or Aluminum
- 8 Year Battery Life
- 2 Year Warranty

The BAPI Wireless 418 MHz Thermobuffer transmits the temperature of walk-in freezers or coolers to a receiver within 100 feet\*. The Thermobuffer slows the temperature reaction of a freezer door opening to prevent false alarms or short cycling the compressor.

Thermobuffer temperature sensor (2 inch probe shown)

The Thermobuffer features a watertight BAPI-Box enclosure and is designed to be mounted to the wall of the cooler or freezer saving valuable shelf space. It is available with a two-inch or four-inch stainless steel buffer chamber (optional aluminum) which is sealed with customer provided oil, or a 50/50 glycol solution to approximate the temperature reaction of the refrigerated contents in the freezer or cooler.

### Associated Products

• 418 Receiver

Receives the RF signal from the transmitter or repeater and outputs the values to up to 127 different Analog Output Modules.

Repeater:

Extends the range of the Transmitter up to 1,000 feet.

• Analog Output Modules: Converts the signal from the Receiver into a Resistance, Voltage or Current for the DDC controller.



418 MHz Receiver with two Analog Output Modules

# Wireless Operation

The Wireless Thermobuffer measures the temperature through the buffer chamber and transmits the temperature approximately once every 20 seconds to a receiver which in-turn sends the signal to an analog output module. These output modules come in all the standard BAS analog inputs including Voltage, Current or Thermistor Resistance.





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## Ordering Information

#### PART NUMBERS:

#### BA/WT-TB-M304-2-BB

Wireless Thermobuffer, 304 Stainless Steel Chamber, 2 inch probe, BAPI-Box Enclosure

#### BA/WT-TB-M304-4-BB

Wireless Thermobuffer, 304 Stainless Steel Chamber, 4 inch probe, BAPI-Box Enclosure

#### **BA/WT-TB-MAL-2-BB**

Wireless Thermobuffer, Machined Aluminum Chamber, 2 inch probe, BAPI-Box Enclosure

#### **BA/WT-TB-MAL-4-BB**

Wireless Thermobuffer, Machined Aluminum Chamber, 4 inch probe, BAPI-Box Enclosure

### BA/LI3620

Lithium Ion AA Battery, 3.6V, for all Transmitters except the BAPI-Slim and Wireless Food Probe

### See end of Section F for list pricing.

## Specifications

Supply Power: Two 3.6V Lithium batteries Battery Life: 8 years at 20 second transmit rate Battery capacity: 2.25 AH Sensor: Built in thermistor Accuracy: ±0.36°F (±0.2 °C) Temperature Range: -40°F to 185°F (-40°C to 85°C) Radio Frequency: 418 MHz Transmit Power: 1.5mW Transmit Time: 20ms Modulation: Amplitude Modulation (AM) A/D Resolution: 12 Bit Transmitter Interval: ~20 seconds

Antenna: Built inside the enclosure

- Error checking: CRC 16, Cyclic Redundancy Check 16 bit
- Agency: FCC ID#T4F060811TEMP

Weight: 2 lb (0.9kg)

Environmental Operation Range: Temp: -22°F to 158°F (-30°C to 70°C) Humidity: 0% to 100% RH, Non-condensing

Note: Unit requires food grade glycol antifreeze for proper operation.

Enclosure Rating: NEMA 4, IP66 Enclosure Material: UV-Resistant Polycarbonate Material Rating: UL94 V-0 Probe: 2 or 4 inch, ¼" 304 Stainless Steel Buffer chamber: 2 or 4" 304 Stainless Steel (Optional machined aluminum) Warranty: 2 Years



\*Actual in-building transmission distances will vary depending upon building construction and other factors.



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