



*"Partners In Production"*

# Bluetooth Sensor Series

Bluetooth Packaged Quick Use Sensors

## BLE: Bluetooth - "Smart" Low Energy Sensor

Our product lets you remotely track location, movement, temperature, humidity and much more via the quick transfer of information using our low energy component solution. It offers you the convenience and versatility of connecting low energy sensors to a Smartphone, Tablet or PC.

### BLE Optional Configurations

#### Temperature & Humidity Wireless

Temperature and humidity in a wireless form factor.

#### Temperature & Humidity Hardwired

Temperature and humidity in a hardwired contact form factor.

#### Wired Dry Contact

Signals a switch making contact - otherwise known as "dry contact" - with wired dry contact type devices

#### Temperature and Humidity Key Pad or Fob Wireless

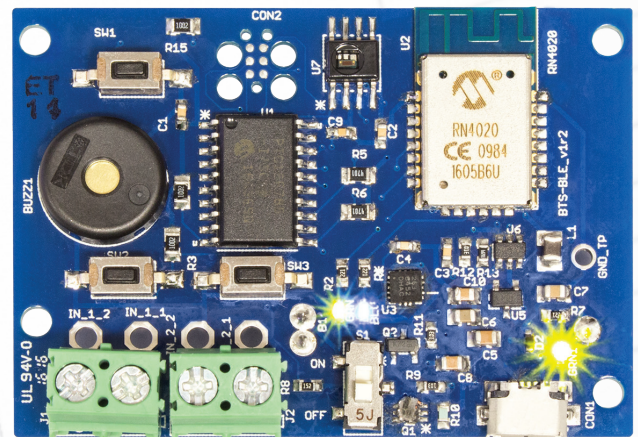
Signals to a key pad or key fob recognition device as a wireless feedback for temperature and humidity

#### All Sensors

Signals temperature, humidity, acceleration, barometric pressure and dry contacts

#### Custom Design

Totally customizable design to fit your sensor and bluetooth smart low energy feedback requirements



### Additional Products

#### BTS-RC Router/Communicator

- Base unit used as a gateway to the rest of the world
- Used with BTS technology to connect you and the information you need when standard bluetooth signal lengths don't reach far enough.

### Additional Software Solutions

#### IBeacon App

- Customizable software that allows Apple based proximity app for your Smartphone
- Uniquely addressable
- See us for custom apps

#### AltBeacon App

- Customizable software that allows Android based proximity app for your phone
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### Applications

#### Monitor

- Industrial Machinery
- Health Statistics
- Impacts
- Sump Pump

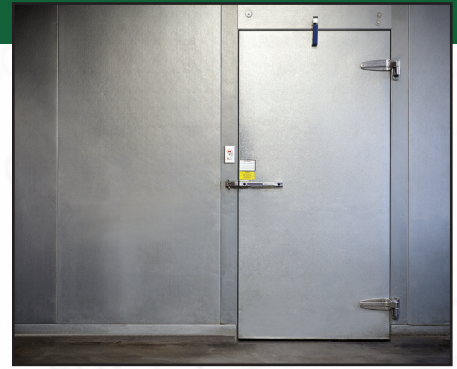
#### Detect & Notify

- Door Open or Closed
- Water Well Pump On or Off
- Front Porch/Door Bell/ Mailbox Activity

And Many, Many More Applications ...

## About the “Smart” Bluetooth Sensor Series

- Monitor
- Detect
- Notify
- Low energy
- Quick hitting data packets
- Long battery life
- Quick to market
- Minimal integration/development
- Application friendly
- Supported by major operating systems (Apple, Android, Windows 8, etc.)
- Flexible application development architecture
- Greater than 300 foot max range with out repeaters



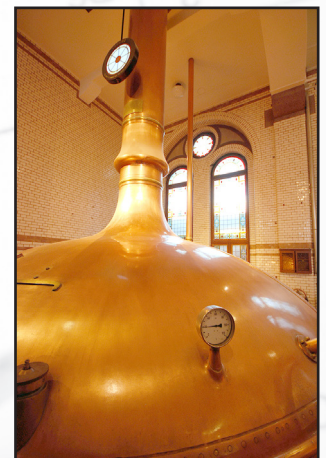
Remote Temperature Monitoring

### Features:

	Bluetooth Smart Technology	Classic Bluetooth Technology
<b>Distance/Range:</b> (theoretical max)	>100 m (>330 ft)	100 m (330 ft)
<b>Over the air data rate:</b>	1 Mbit/s	1-3 Mbit/s
<b>Application throughput:</b>	0.27 Mbit/s	0.7-2.1 Mbit/s
<b>Active slaves:</b>	Not defined; implementation dependent	7
<b>Security:</b>	128-bit AES with Counter Mode CBC- MAC and application layer user defined	56/128-bit and application layer user defined
<b>Robustness:</b>	Adaptive frequency hopping, Lazy Acknowledgment, 24-bit CRC, 32-bit Message Integrity Check	Adaptive fast frequency hopping FEC, fast ACK
<b>Latency:</b> (from a non-connected state)	6 ms	Typically 100 ms
<b>Minimum total times to send data:</b> (det. battery life)	3 ms <sup>[32]</sup>	100 ms
<b>Voice capable:</b>	No	Yes
<b>Network topology:</b>	Scatternet	Scatternet
<b>Power consumption:</b>	0.01 to 0.5 W (depending on use case)	1W as the reference



Sump Pump Monitoring



Monitor Tank Levels, Kettle Temperature, Wort Chiller and Tank Pressure

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