



Wireless Sensors Use Case: Perishable Foods

The Problem:



Monnit was approached by a large dairy product manufacturer about an issue they had with temperatures in one of their environmentally controlled processing areas. A door had not sealed properly when an employee left the room, causing the temperature to rise in a short amount of time. The facility manually monitors temperatures according to FDA guidelines, but when the temperature was recorded at its next interval, they realized how quickly the temperature had changed. The incident resulted in the loss of product for the entire room, an estimated \$30,000 value. The company wanted to implement a reliable temperature monitoring system, that would alert their managers if temperatures were out of compliance while automatically tracking and recording temperatures for their regulation logs.

They realized that their process of manually tracking temperatures was not enough to protect them against the possibility of inventory loss. They needed a solution to human error and fast changing temperatures.

The Solution:



Due to the value of inventory processed in their temperature controlled rooms, and the nature of the incident, Monnit recommended the use of wireless temperature sensor probes, open/closed door sensors and a MonnitLink™ gateway.

The temperature sensor housings were attached outside each access door, with the temperature probe running through the door seal and attached inside the room. Open/closed door sensors were then installed on the outside of each access door.

The sensor data is sent wirelessly to the MonnitLink™ gateway 150 feet away, which sends the information to the iMonnit™ online sensor monitoring system. The sensors were set to check temperatures every few minutes and record temperatures every 10 minutes. Notifications were setup to alert their staff if any door is not fully shut or if temperature readings are above their limit, allowing them to respond appropriately.

Wireless Sensors Used

Wireless sensor used:	How it was used:
Temperature sensor with probe	To monitor temperatures inside a temperature controlled dairy processing rooms, providing data tracking for FDA regulations and notifications set to alert staff of temperature fluctuations, preventing product spoilage.
Open/closed sensor	To monitor door access, to and from a temperature controlled area with notifications set to alert staff if a door does not close fully.

The Result (Cost Savings)



Monnit makes it easy to realize the immediate return on investment. For an investment of ~\$800, the customer was able to deploy a comprehensive solution addressing all of their needs. Within the first month alone the system alerted their staff of three separate incidents that could have cost the company more than \$45,000 in spoiled inventory. For this company the prevention of a single incident, saves them over 20 times the cost of their investment.

Using Monnit's comprehensive monitoring solution, this customer is now able to:

- Avoid potential product spoilage by using sensors in their temperature controlled production areas.
- Tell if access doors are not closed properly, preventing temperature fluctuations.
- Automatically track and document processing area temperatures per FDA requirements.
- Ensure that the product leaving their facility has been kept within set temperature parameters.

“For our production processes, temperature is critical. A simple mistake, such as not shutting a door, can cause an entire batch to go bad. We have tried other products, but had issues with their reliability. Monnit sensors have been going strong for over a year now, and have never let us down. I can’t recommend them enough!”

It doesn't matter where in the world you are or what time it might be, deploying a Monnit wireless sensor and monitoring solution connects you from anywhere, 24/7 so you'll know immediately when a problem starts.

