



Wireless Sensors Use Case: Meat Packing

The Problem:



Monnit was approached by a customer that has refrigerator and freezers where various meats are stored or cured. They were looking for a monitoring and alerting system to provide them with consistent temperature data for FDA compliance and the ability to alert individuals in real time if the temperature in a refrigerator or freezer was out of compliance.

The facility manually monitors temperatures according to FDA guidelines, but 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:



Because of the harsh environment where the sensors were deployed (frequent heavy cleaning with soap and water), Monnit recommended the customer use leaded industrial temperature sensors and a Monnit-Link™ gateway. Monnit industrial wireless sensors are water and dust proof, allowing them to be sprayed off and cleaned. The sensor housings were attached to the outside of their refrigerator and freezers with temperature probe running through the door seal and attached inside. They also installed open/closed sensors to the refrigerator and freezer doors to tell them if a door is not completely closed.

The sensor data is sent wirelessly to a MonnitLink™ gateway 200 feet away, which sends the information to iMonnit™, the online sensor monitoring system. The sensors were set to check 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 and record temperatures inside walk-in refrigerators and freezers, providing data for FDA requirements and notifications set to alert staff of temperature fluctuations, preventing product spoilage.
Open/closed sensor	To monitor door access, alerting staff if a door does not close fully.

The Result (Cost Savings)



For an investment of ~\$800, the customer was able to deploy a comprehensive solution addressing all of their needs. Each walk-in refrigerator/freezer that the company is monitoring contains upwards of \$20,000 in meat product. Within the first month the system alerted their staff of an incident where a cooler door was not shut completely at the end of a shift, which could have resulted in several thousands of dollars in spoiled inventory. For this company the prevention of a single incident, saves them several times the cost of their investment.

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

- Avoid potential product spoilage by using temperature sensors in their walk-in coolers.
- Tell if cooler doors are not closed properly, preventing temperature fluctuations.
- Automatically track and document meat storage temperatures per FDA requirements.
- Ensure that the product leaving their facility has been kept within set temperature parameters.

“Monnit’s sensors and monitoring software save us so much time and money. It’s great to be able to automatically track our cooler temperatures! I love that the system alerts me and my team if a door isn’t shut or if the temperature gets close to our limits. Thanks for making such a great product!”

- Lauren T., Production Manager

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.

