

Wireless modules make food safety easy, fast and reliable



Food Retail Customer

One of the largest food and drug retailers in the United States operates stores across 35 states under many well-known food retail brand names.

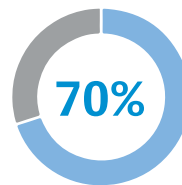
Challenge

Maintaining food quality is job one for retailers. Consumers look to these trusted sources to provide fresh, nutritious products consistently year after year. To accomplish this and meet various food safety regulations, many retailers use monitoring systems that track food from the production facilities to the store. Sometime, this is a manual process, with temperatures taken with thermometers and recorded on clipboard forms. In other instances, more automated systems are used, but use in the store infrastructure often means making complex and expensive modifications to floors, fixtures and facilities.

Solution

With an Emerson Wireless Module, temperature probes, product simulators and other refrigeration sensors can be connected easily to monitor perishables in critical refrigeration equipment throughout the store, helping ensure that fresh foods are safeguarded, while also building a reputation for quality foods.

Summary of results



Savings on installation cost



Savings on new retail store construction



The retailer installed Emerson wireless temperature sensing system in refrigerated cases to monitor temperatures and food quality of high-value foods. Temperature probes and product simulators were connected to the wireless module, which in turn transmitted a consistent signal up to 100 feet in the indoor environment and extended as required with repeaters. With a reliable 902 MHz signal and a broadcast rate configurable from 30 seconds to 15 minutes, the system consistently transmitted conditions data to the wireless gateway. The Wireless Gateway translated the signal into usable information, allowing management to see conditions and make any control decisions.

Process

- A site survey determined the optimum configuration of wireless sensors and system components.
- Firmware updates were applied to existing Emerson E2 controllers to accommodate the new technology.
- Connections were established among system components, including installation of the Wireless Gateway above the refrigerated area with line-of-sight to the controlled units, but away from consumers.
- Final system check-out included pairing Bluetooth modules with the Gateway and validating all connectivity. **Learn** and **Test** functions on the units greatly simplified system start-up.

Results

The all-wireless solution allows collection of critical temperature and other key data quickly and continuously; data helps store managers monitor perishables which can maximize shelf life, reduce shrinkage and ensure safety. The Wireless Sensor System was installed in about 3 hours, compared to the days of disruption spent installing hard wiring through ugly poles or torn-up concrete. By eliminating costly facility modification, and minimizing network connections, utility requirements and time-consuming processes, installation and start-up costs were reduced significantly. In existing stores, the retailer estimated a 70% savings over traditional wired solutions – while also minimizing shopper inconvenience and disruptions. In new construction, the retailer achieved savings of approximately 15%, primarily in avoiding additional specialized labor.

TAKE ACTION

Learn more about what wireless sensors can do for you. For more information on additional Emerson services and other benefits of Emerson facility controls, please email:

RetailsolutionsMarketing@Emerson.com

or contact an account manager at **770-425-2724**.

How we did it

