# COLD STORAGE





### ENSURE FOOD STAYS SELLABLE WITH COLD STORAGE MONITORING

Spoiled food is unsafe for customers and expensive for grocery stores.

Manually monitoring temperatures is time consuming.

Temperature sensors help you maintain proper conditions while saving time and money.

### Keep Food Safe and Customers Happy

You can't risk selling spoiled food. For many products, consistent refrigeration is required to maintain freshness. Fresh fruits and vegetables are particularly sensitive to spoilage and must be monitored carefully. One undetected refrigerator malfunction can result in \$30,000 in lost stock.<sup>[1]</sup>

Cold storage monitoring helps you avoid sick customers, insurance claims, lawsuits and damage to your reputation.

## Comply with Regulations, Decrease Labor Costs and Protect Valuable Stock

To comply with regulatory requirements, such as Hazard Analysis and Critical Control Point (HACCP), food retailers must monitor and document temperature for food at least three times each day. To ensure food remains at the right temperature, employees conduct manual checks, which are tedious and time-consuming. For large stores with dozens of temperature points, those checks add up to hours of labor.

Sensors applied to refrigeration and freezer units let grocery stores remotely monitor temperatures and confirm equipment is working. Because checks happen every few minutes, changes don't go unnoticed. Sensors feed data into reports you can share easily with auditors to demonstrate compliance.

If sensors detect unexpected changes, they can alert site managers and service technicians to address problems immediately. Staff can quickly relocate perishable food, ensuring it is safe for sale.

Sensors free up time for employees, allowing them to focus on other work functions that improve the customer experience. One undetected refrigerator malfunction can result in \$30,000 in lost stock.





#### How It Works

Disruptive Technologies' mini-sensors can be placed in freezers, chiller rooms and refrigerators to gather the most accurate data, directly from the source. They even can determine whether a freezer door has been left open or whether certain equipment hasn't been turned off for the night. This insight into operations helps managers improve oversight and training.

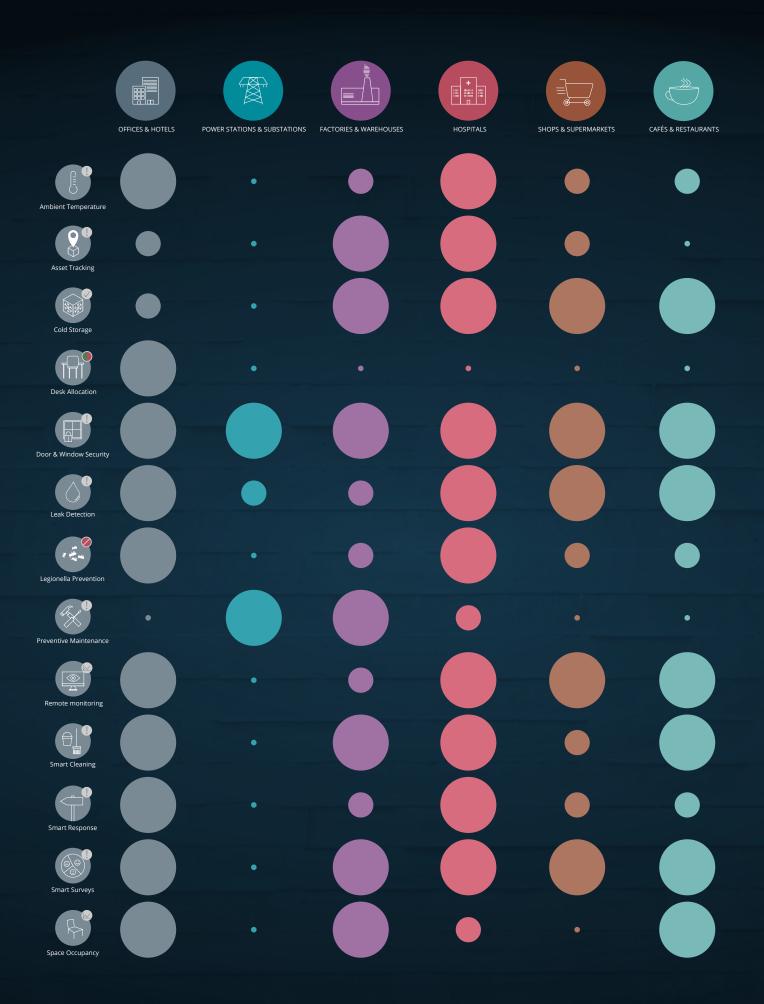
Sensors connect securely through Cloud Connectors with built-in cellular M2M and Ethernet and stream data through open APIs into any analytics platform. The Cloud Connectors relay traffic between all sensors in range and the Disruptive Technologies Cloud without the need for any user configuration or intervention.

Disruptive Technologies provides the secure sensor-to-cloud solution, while our partners provide the final application software and services. Disruptive partners are highly skilled teams of experts that provide all levels of support throughout the entire installation, configuration, and analysis process.

### Why Disruptive Sensors

First-generation sensors were bulky, complex and often inaccurate. We've completely rethought sensor design to enable data collection anywhere and everywhere. There's no need to "rip and replace" legacy systems to turn them into "smart" equipment.

- · Mini-sensors are the size of a postage stamp
- Low power consumption = long battery life
- · Direct connections provide maximum accuracy
- Supports next-gen internet of things (IoT) networks
- · Industrial-grade connectivity and built-in redundancy
- · End-to-end security built into the design
- Extensible platform to integrate into your systems
- · Robust construction
- Cost efficient



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DISRUPTIVE