CalAmp®

Food Freshness:
How IoT Enables Glycol Temperature Monitoring

Highlights

Temperature Control
Saved almost $90,000 in losses per incident by monitoring temperature fluctuations or failures

Average Cost: $199
A sensible investment to protect perishable inventory

Quick 15 Minutes Install
For the simple plug and play solution

Reporting Capabilities
Easily access records for Food Safety Standard programs

About DCS:

Direct Communication Solutions (DCS) is a CalAmp value-added reseller that provides innovative products, services, solutions and support to the emerging Internet of Things (IoT) industry. Their clients represent all industry verticals including energy, utilities, fleet, healthcare, hospitality, point-of-sale, safety and security.

The Challenge

There are more than 645,000 restaurants in the United States and most utilize glycol chillers to control the temperature of refrigerated storage systems. These solutions help retain perishable food and beverage freshness. They also assist with regulatory compliance standards. If these chilling systems malfunction or have a complete failure, it has a big impact on operations, which is why larger venues, such as sport stadiums, spend as much as $500,000 on a chilling and monitoring system to know when a failure occurs.

For craft brewers in particular, glycol chillers control the temperature during brewing, storage and the draft systems as well as when the draft taps are removed from the storage tanks. One well-known craft brewery located in San Diego, California lost $23,000 in inventory and nearly $60,000 in potential revenue when their chilling system failed over a weekend. “This had happened to them twice previously, so they came to us,” said DCS president Chris Bursey.

The Solution

The San Diego craft brewery selected DCS to develop a temperature-monitoring solution for their glycol chillers. At the core of the solution is an application that sends real-time alerts via text message and/or email to notify staff members when a temperature fluctuation needs immediate attention.

> "We're helping craft breweries and restaurants protect their highest-margin products, the safety of their customers, and their brand."
>
> Chris Bursey,
> President, Direct Communication Solutions

The DCS solution integrates the CalAmp® TTU-2830™ device that includes two temperature sensors. It monitors the storage tank and the lines that connect directly to the pipe and is attached to the pump covering two possible points of failure. The device's LTE Cat 1 cellular connectivity and a backup battery ensure that alerts are sent in the event of an external power outage, when glycol chilling systems are most likely to go offline. CalAmp's TTU-2830 has the ability to support up to six sensors that can be used to expand additional monitoring capabilities beyond temperature including humidity, water leaks and a panic button in case someone is trapped inside a walk-in refrigerator.

The solution includes a reporting platform that enables brewery and restaurant owners to provide documentation of compliance during inspections. An audit trail is a useful tool for managing the Hazard Analysis and Critical Control Points (HACCP) programs required by the FDA. "With our solution, you have the reports to prove how you have addressed temperature spikes," says Bursey.

Implementing the solution for the brewery was simple. "The overall installation is rather quick and consists of a plug and play solution that takes about 15 minutes from start to finish. Once the device is mounted and plugged in, the temperature sensors are then placed in designated areas specified by the customer," says Bursey.

A reliable glycol monitoring system is paramount in preserving not just perishable goods, but an establishment's overall brand and customer experience. For small to medium businesses, a sensible and automated solution is a must to help protect the reputation they've work so hard to build while maintaining a positive bottom line. With the integrated solution from CalAmp and DCS, craft breweries like the one in San Diego as well as restaurants can ensure the inventory they serve meets their customers' expectations while keeping safety and freshness in mind.

About CalAmp
CalAmp (NASDAQ: CAMP) is a technology pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. LoJack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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