

Sensors

**Automate for peace of
mind.**



**PHOENIX HOSPITALITY
GROUP**

Phoenix Hospitality Group

Hospitality

Stock check

Data visualization & integrations with BI tools

New menu

training

Spill

communication received

Spill hazard reported

Sensor alerts
temperature
risk

District Manager

Property condition reports
Training strategy & development
Corrective actions from food safety
Checklist and cost of goods sold results
Employee recognition/shoutouts
Facilities licenses management (expiry/copy on site)

Chefs

Team training check
Inventory reports
Food quality checks
Digital HACCP line checks
Cost of goods sold checklist
Hot holding logs
6 hour cooling procedure
BOH opening & closing checklist

Equipment

General Manager

Mystery shopper results
Operations inspection
Cleanliness inspections
Brand standards & brand compliance
Maintenance and repair management
Fire extinguisher checks
Staffing, hiring, training, scheduling
Weekly Quick visits (food safety/Ops) & Quarterly full day deep dive into ops with corrective actions

Shift Lead

Cash handling checks
New menu training
HACCP program
Manual handling training
Bathroom cleaning checks
Cleaning / housekeeping
Lone worker (Opening/Closing)
HSE training (Knife handling, slips/falls, CPR)
Maintenance & repairs reporting via Issues

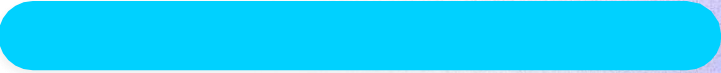
IoT



- Maintenance checks
- Oven hood/exhaust cleaning
- Fryer oil disposal
- Refrigeration maintenance
- Gasket inspections (seals)



- Temperature monitoring
- Humidity monitoring
- Food probe temperature checks



How it works

Sensors



Sensors



Sensors



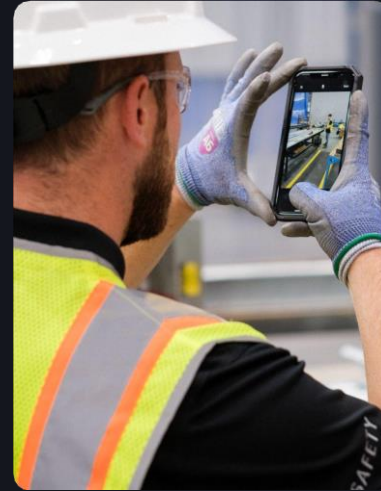
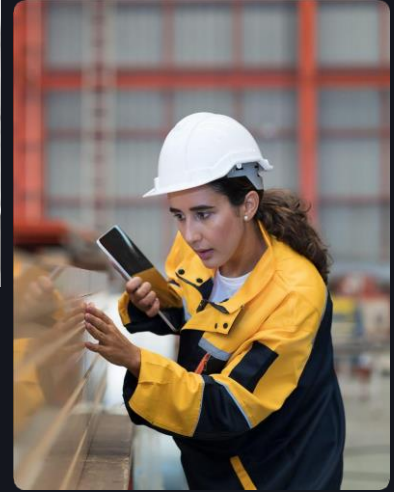
Gateway

LoRa



*Requires at least 1 Phoenix subscription to access the sensors dashboard

Sensor hardware



Standard Sensor



Operating temperature

Standard -40C to +80C / -40F to +176F

Probed -55C to +125C / -67F to +257F

Accuracy Temp $\pm 0.3^{\circ}\text{C}$ / & Humidity $\pm 2\%\text{RH}$

Long Term Drift $<0.03^{\circ}\text{C}$ / $<0.25\%\text{RH}$ per year

Battery Replaceable battery ~ 3 years use, up to 10-year device life

IP Rating IP64

Use Case Suitable for standard fridge applications

Range $\sim 100\text{m}/300\text{ft}$ (may vary depending on environmental conditions)



Industrial Sensor



Operating temperature

Standard -40C to +80C / -40F to +176F

Accuracy Temp $\pm 0.2^{\circ}\text{C}$ / & Humidity $\pm 2\%\text{RH}$

Long Term Drift $<0.03^{\circ}\text{C}$ / $<0.25\%\text{RH}$ per year

Battery Single use battery $\sim 3\text{-}4$ years use

IP Rating IP66 for long term industrial use

Use Case Suitable for walk in freezers & industrial settings

Range $\sim 100\text{m}/300\text{ft}$ (may vary depending on environmental conditions)



Bluetooth temperature probe



Key features

Temp Range	-50C to +300C / -58F to +508F
Accuracy	± 0.4°C
Connectivity	Bluetooth LE
Battery	1 x 1.5-volt AAA - 1,000 hours
IP Rating	IP66
Use Case	Suitable for hospitality, and certain manufacturing use cases
Range	~30m/100ft from mobile or tablet



Industrial Sensor (high temp)



Operating temperature

Standard	-70 ~ 550°C / -94 ~ 1022°F
Accuracy	0 ~ 80°C ± 0.5°C (32 ~ 176°F ± 0.5°F)
Battery	Single use battery ~3-4 years use
IP Rating	IP66 for long term industrial use
Use Case	Suitable for extremely high temperature environments
Range	~100m/300ft (may vary depending on environmental conditions)



Gateway hardware

4G Cellular Gateway

Ethernet capability



Key Differences

Wireless connectivity + built in 4-hour backup battery

Specifications

Wall powered

Certifications: FCC

IP Rating: IP30

Range: ~100m (may vary depending on environmental conditions)

Ethernet & Wifi Gateway



Key Differences

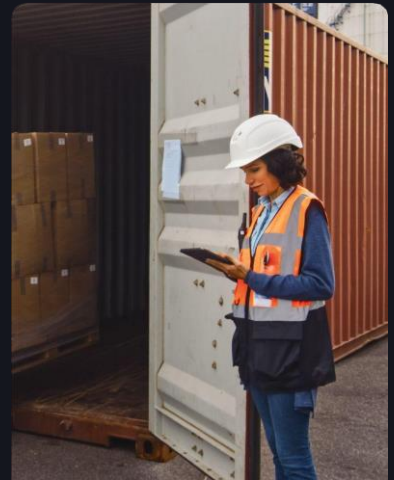
Setup of this gateway may require IT support.
If internet connection goes down readings will be affected



No ongoing monthly connection cost



Return on Investment & Case Studies





Skip The Dishes: Energy savings

Skip Express Lane 2001 (WATT ST) ✓

EUI-647FDAFFFE014941

EUI-647FDAFFFE014941

Connected

> 13 sensors associated



Freezer temperatures which are set above HACCP requirements.

1 door Pepsi cooler, sensor #10

EUI-647FDAFFFE014941

Connected

Beverages

Temperature Relative humidity
4.75 °C 95.3 %

3 Door freezer, Sensor# 5

EUI-647FDAFFFE014941

Connected

Food - Frozen

Temperature Relative humidity
-22.28 °C 73.9 %

Arctic Glacier ICE Sensor#13

EUI-647FDAFFFE014941

Connected

Food - Frozen

Temperature Relative humidity
-14.04 °C 87.4 %

B&J Freezer 2, Sensor #12

EUI-647FDAFFFE014941

Connected

Other

Temperature Relative humidity
-20.23 °C 53.8 %

Ben & Jerry Freezer 1, Sensor# 3

EUI-647FDAFFFE014941

Connected

Food - Frozen

Temperature Relative humidity
-30.33 °C 79.4 %

DOOR - Walk-in Freezer

EUI-647FDAFFFE014941

Last seen about 10 hours ago

Food - Refrigerated

Door position
Closed

Haagen-Dazs freezer 1, Sensor# 8

EUI-647FDAFFFE014941

Connected

Food - Frozen

Temperature Relative humidity
-24.08 °C 38.4 %

Haagen-Dazs freezer 2, Sensor# 7

EUI-647FDAFFFE014941

Connected

Food - Frozen

Temperature Relative humidity
-23.76 °C 38.6 %

Pepsi 2 door Watt-09 New

EUI-647FDAFFFE014941

Connected

Food - Refrigerated

Temperature Relative humidity
5.2 °C 69 %

Produce Fridge Sensor# 11

EUI-647FDAFFFE014941

Connected

Food - Refrigerated

Temperature Relative humidity
4.97 °C 96.8 %

Red Bull Fridge, Sensor# 4

EUI-647FDAFFFE014941

Connected

Beverages

Temperature Relative humidity
3.43 °C 61.7 %

Walk in cooler Watt-01 New

EUI-647FDAFFFE014941

Connected

Food - Refrigerated

Temperature Relative humidity
3.2 °C 78.2 %

HACCP

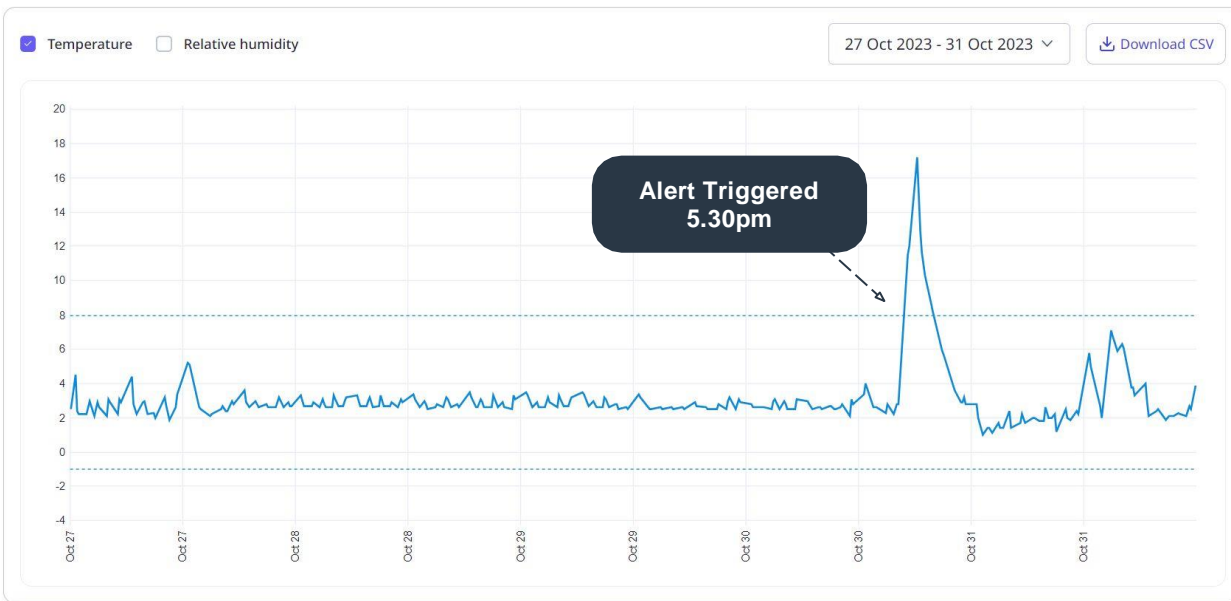
“The freezer temperature should be -17.7°C (0°F)”

[FDA](#)

Every 1°C reduction in temperature below 4°C is a **+5% increase** in energy costs

Public Hospitality: Door Left Open

PUBLIC



**National
Food Safety
Manager,
Public Hospitality**

“

“The team had left the door open on the walk-in cool room and then closed the kitchen! I got the alert and had someone drive back and close the door.

We **saved \$10k** of stock in that cool room!”

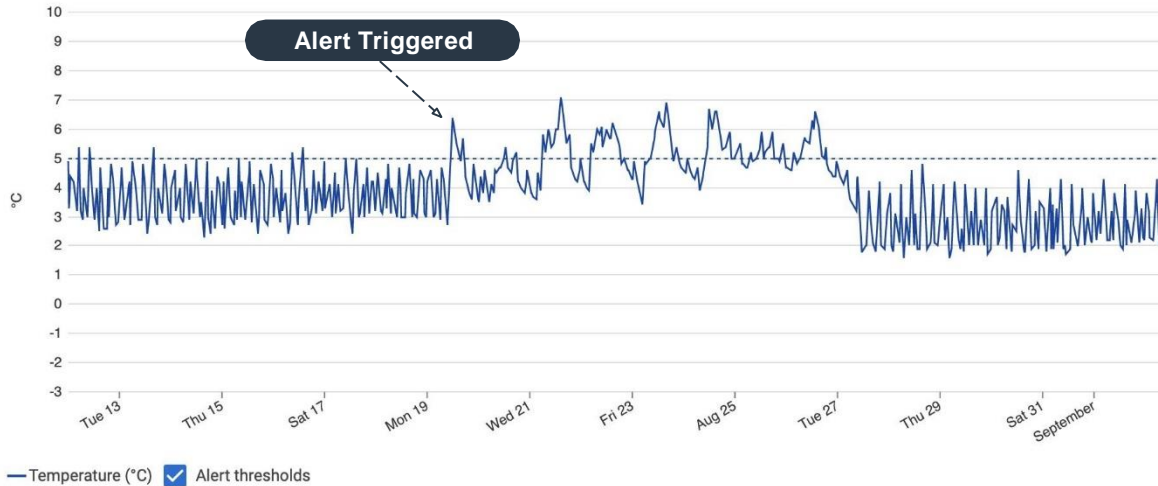


Marley Spoon: Tripped Circuit Breaker

← OLD COOLROOM RIGHT SIDE- ... ✎



12 Aug 2019 - 2 Sep 2019 ▾



**Food Safety
QA Specialist,**
Marley Spoon

“

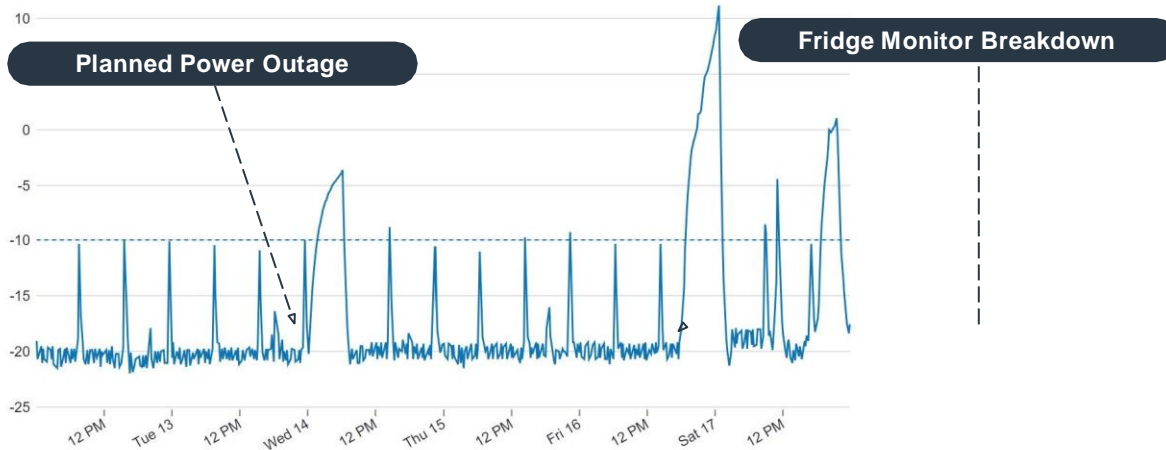
“We called an electrician to come, they found that one of the breakers tripped which was causing the system not to cope well.”

Hoyts: Power Outage



← Sensor 16 - Back House - Pizza Freezer 1

Temperature (°C) Humidity (% RH) Alert thresholds 12 Jun 2023 - 17 Jun 2023



National Health & Safety Manager,
Hoyts

“

“I called the manager on-site immediately and we were able to move all the stock to another freezer...”

We saved over \$10k.

that night.

I was also able to log an action for the facilities team to get the fridge fixed ASAP.”



Waldorf Astoria: Customer Satisfaction

Improving guest satisfaction with delicious and safe food

15 Points of improvement in terms of F&B guest satisfaction

**General
Manager,**
Waldorf Astoria
Boca Raton

“

“Food and beverage is up 15 points in terms of a guest satisfaction standpoint. To see that level of change speaks a lot about a system like Safety