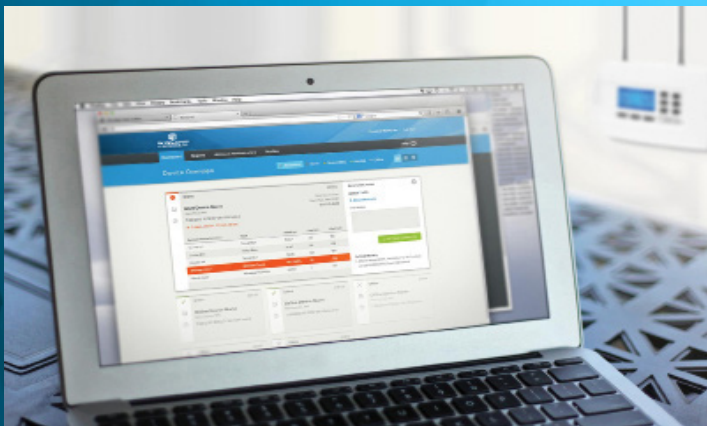# WINLAND
ELECTRONICS, INC.

Critical Environment Monitoring Solutions

Remove the obstacles, disruptions, distractions and concerns that impede a smooth running business.

With the Winland Critical Environment Monitoring solution, you'll experience newfound freedom, and the ability to focus on the every day things that improve results and drive value.

The solution provides complete real-time visibility to temperature, water, gas, humidity and other physical irregularities in critical-condition environments. Curb inventory and labor costs. Ensure compliance with storage regulations. Safeguard business reputation and market position.

Healthcare

Pharmaceutical

Research

Food Service

Manufacturing

Winland Electronics, Inc.

An industry leader in
critical-condition monitoring devices.

Products including **EnviroAlert, WaterBug,**
and **TempAlert** are designed in-house to
monitor critical conditions for industries,
including health/medical, grocery/food
service, commercial/industrial, as well as
agriculture and residential.

Specialties
Environmental Monitoring Solutions using
Winland's Critical-Condition
Monitoring Devices

www.winland.com

Proudly made in the U.S.A.
Winland products are compatible with any hardwire or wireless alarm system and are available through distributors worldwide

Where To Buy

Visit www.winland.com
To find a distributor in your area

Headquartered in Mankato, MN

INDUSTRIES

Our revolutionary software will allow you to initiate the fastest-possible response to any arising equipment issues, protect your inventory investment, maintain compliance with governmental regulations, avoid fines and costly lawsuits, and safeguard your reputation.

Healthcare

Winland **Insight*** is an automated, cloud-based critical-condition monitoring service available within the healthcare industry.
It provides early detection of environmental threats to your perishable assets, ensuring that healthcare standards are continuously upheld.

Pharmaceutical

There is no compromising when it comes to pharmaceutical standards. Safety is of paramount importance-to your clients and to your reputation. Protect your perishable assets and position yourself as an industry leader in regulatory compliance.

* fee-based subscription required

Research Facilities

Winland technology is essential to your research facility, providing early detection of threats to your fragile assets, ensuring that standards are continuously upheld. Winland is undaunted by the prospect of monitoring your delicate assets with its automated, cloud-based, critical-condition monitoring service.

Foodservice

Protect your perishable assets, and your reputation with Winland **Insight.** Winland technology is essential to any comprehensive food-safety program.

Manufacturing

Winland provides early detection of environmental threats to your perishable assets, ensuring that strict standards are continuously upheld.

Critical Environment Monitoring Solution
Insight

Newfound freedom comes complete with plenty of options - your options. Design response plans, receive exception alerts and generate and distribute reports virtually anyway you want them. Monitor critical environment conditions two ways - online via any computer or smart device for real-time data access, and/or integrate the solution with a trusted security system provider for 24x7 monitoring.

The Right Response

Develop customized, step-by-step response plans for all types of incidents. Set up standardized protocols by location, length of incident, type of product – and more – with a few clicks of the system. The system will automatically generate an incident report that is distributed immediately after the response plan is completed.

Exception Alerts, Six Ways

When a sensor falls outside of its threshold, notifications can be sent to pre-defined recipients in any of the ways users configure their notification preferences.

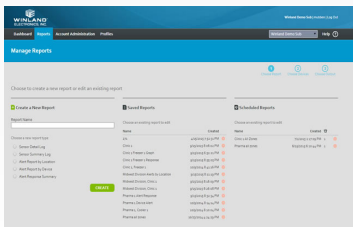Visual System Notification within the web-based application via:

Email
Text Message
On-premises Audible
and/or
Visual Alarm

Notification of Alert relayed to security provider monitoring station

Integrate notification of Alert into third-party or proprietary system

Reporting and Analytics

Robust reporting capabilites with configurable and custom reports that can be accessed on-demand or distributed to individuals and groups at specified intervals with scheduled reporting. Five of the most common system generated reports include:

Sensor Detail Log Report
Sensor Summary Log Report
Alert by Location Report
Alert by Device Report
Alert Response Summary

Safe and Simple Under the Hood

Flexible Enterprise Management

Its configurable enterprise structure simplifies remote management of devices in multiple locations or within different organizational groups.

Simplified Integration

Integrating alert relays into any wired or wireless security system is easy and enables 24×7 monitoring. Standard APIs* (based on secure web services) facilitate data extraction from **Insight** and integration with other applications.
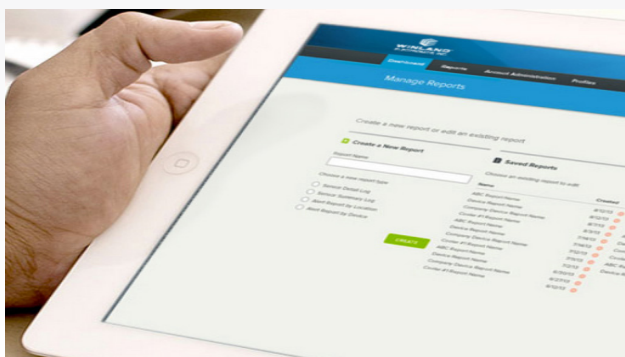
*Available upon request.

Robust System Security

The Winland solution protects stored and transmitted data's security, integrity and privacy.

It is a cloud-based platform with tiered infrastructure and application, encrypted proprietary communication protocol and SSL data traffic.

ENVIROALERT® EA800-ip

Network IP Critical Condition Monitoring Solution for Asset Protection

The EnviroAlert® EA800-ip provides two-way access to remotely monitor, collect and view real-time data from up to twelve sensors (up to 8 wireless, up to 4 wired) for temperature, humidity, water, gases, pressure, dry contacts and more.
Sensor settings may also be modified via an internet connection eliminating the need for on-site adjustments or a service call. Industries that benefit from 24/7 peace of mind include medical, pharmaceutical, HVAC, food service, high tech and more.

EA800-ip Console

Ethernet enabled monitoring console receives and automatically records data from wireless and wired sensors.

Logging Collection Frequency

- 5 to 120 minutes via Ethernet
- Intuitive user interface
- 128 x 64 graphic LCD display with blue backlight that flashes under alarm condition
- Accommodates 4-20 mA sensors (pressure, airflow, CO_2, etc.)
- Wireless frequency 2.405 GHz - 2.480 GHz, 16 channels
- Password protected programming lock
- On-board piezo buzzer

Ethernet connectivity

- Monitoring of multiple sites from any location (with the purchase of additional EA800-ip consoles and sensors)
- Cloud-based **Insight** access requires a fee-based subscription

Remote access to

- Programming
- Real-time data viewing
- Sensor, alarm and event data logs for audit trail
- Auto report generation
- Sensors for temperature, humidity, water presence, gases, dry contact
- Alarm notification via text message, email, dry contact relay, and local sounder

Data logging

- Sensor data
- Event and alarm history

Wireless Sensors

- Wireless sensors work with EA800-ip console
- Transmission Distance 45′ to 100′ indoor (results may vary).
- Up to 1-year battery life (low battery alarm notification)
- Not for use in coolers/freezers; instead use wired remote probe or EA-WMFS with remote probe.

EA-WTS

Wireless Temperature Sensor Monitors ambient room temperature

EA-WHS

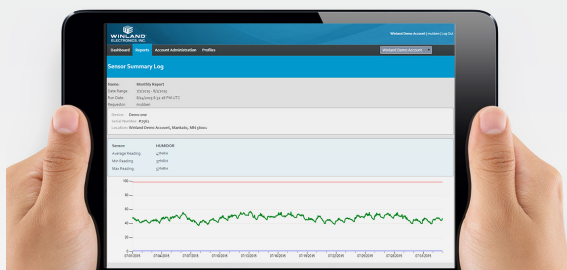Wireless Humidity Sensor Monitors ambient room relative humidity

EA-WMFS

Wireless Multi-Function Sensor Requires remote probe to detect various conditions (probes sold separately).

EA-WMFS shown with TEMP-H-S probe sold seperately

EnviroAlert®	EA800-ip
Ethernet	10/100BASE-TX/FX; fully compliant to IEEE802-3u standard
Power Requirements	11 to 26 VDC @ ≤500mA
Remote Sensor Inputs	12 total (4 hardwired and 8 wireless)
Alarm Outputs	8 – Form C Relays (Configurable) – Max 30 VDC @ 1 Amp resistive
Aux Alarm Output	1 Form C Relay (N.O./N.C.) (Non-configurable) Max 30 VDC @ 1 Amp resistive
Wireless Frequency	2.405 GHz - 2.480 GHz, 16 channels See owner's manual for more information
Operating Range	32 to 122° F (0 to 50° C) Indoor Use Only
Piezo Buzzer	88dBA @ 10cm @ 12VDC, Continuous (enable/disable for local audio alarm)
Weight	1 lb (0.45 kg)
Dimensions	8.13 x 5.52 x 1.93" (20.6 x 14.0 x 4.9 cm)
Case Material	ABS
Mounting	Standard 3-gang box or surface mount

EA800-ip Wireless Sensors	EA-WTS (Temp)	EA-WHS (Humidity)	EA-WMFS (Multi Function)
Monitoring Ability Sensing Range	32 to 122˚F (0 to 50˚C)	5 to 95% R.H. ±5% @ 10-90% RH, 77° F	Remote sensor dependent
Power Requirements	Battery Power: 2 - AA Alkaline Batteries Line Power: 12 VDC @ ≤100mA		
Remote Sensor Inputs	N/A		Requires remote sensor.
Operating Range	32 to 122˚F (0 to 50˚C) Non-condensing environment. Not for use in coolers/freezers		
Battery Life	Alkaline up to 1 year (not included)		
Wireless Frequency	2.405 GHz - 2.480 GHz, 16 channels See owner's manual for more information		
Transmission Distance	45' to 100' indoor (results may vary)		
Weight	0.25 lb (0.11 kg)		
Dimensions	3.67 x 2.65 x 1.17" (9.3 x 6.7 x 2.9 cm)		
Case Material	ABS		
Mounting	Surface mount		

Advanced Monitoring for Critical Environments

Whether it is a residential or commercial application, EnviroAlert® provides the flexibility to simultaneously monitor temperature, humidity, and/or water in one or more critical environments (sensors sold separately). With a designated relay output for each zone, EnviroAlert® will activate alarms, dialers, transmitters, etc.

Other Special Features

- User-friendly configuration set up
- Eight event alarm memory with time and date
- Auxiliary relay output for local alarm
- Auxiliary alarm silence feature with 10 minute timer
- Tamper-proof lock setting

Each Zone Has

- Alarm time delay up to 120 minutes to avoid nuisance alarms (freezer defrost cycles, door opening & closing, etc.)
- Offset calibration adjustment
- Temperature & humidity high/low set points
- Output relays can be configured to be initially energized or de-energized

EnviroAlert®	EA200-12	EA200-24
Power Requirements	11 to 14 VDC @ 120mA	23 to 26 VDC @ 120mA
Remote Sensor Inputs	1 (Zone 2)	
On-Board Temp Sensor	32 to 122˚F (0 to 50˚C)	
Operating Range	32 to 122˚F (0 to 50˚C)	
Low & High Limit Adjust Range	-58 to 299˚F (-50 to 150˚C)	
Alarm Outputs (configurable)	2 Form C Relays (N.O./N.C.) 1A @ 30 VDC	
Aux Alarm Output	1 Form C Relay (N.O./N.C.) (Non-configurable)	
Weight	.55 lb (0.25 kg)	
Dimensions	6 x 4.75 x 1.25" (15.24 x 12.07 x 3.18 cm)	
Case Material	ABS	
Mounting	Standard 2-gang box or surface mount	

*ENVIRO**ALERT**. EA200*

EA200-12
12VDC

EA200-24
24VDC

Dual zone monitoring with on-board temperature sensor on first zone. Second zone requires remote sensor of choice for temperature, humidity, or water sensing. The EA200 allows only one external sensor to be connected.

*ENVIRO**ALERT**. EA400*

EA400-12
12VDC

EA400-24
24VDC

Four zone monitoring with simultaneous operation of any combination of remote sensor of choice for temperature, humidity or water sensing. The EA400 allows up to 4 external sensors to be connected and does not include any built-in sensors.

EA400-12	EA400-24
12 VDC @ < 200mA	24 VDC @ < 200mA
4 (Zone 1-4)	
N/A	
32 to 122˚F (0 to 50˚C)	
-58 to 299˚F (-50 to 150˚C)	
4 Form C Relays (N.O./N.C.) 1A @ 30 VDC	
1 Form C Relay (N.O./N.C.) (Non-Configurable)	
.60 lb (.27 kg)	
6 x 4.75 x 1.25" (15.24 x 12.07 x 3.18 cm)	
ABS	
Standard 2-gang box or surface mount	

ENVIROALERT®

Sensors

Temperature

Remote sensors are available in high and low temp ranges as well as stainless steel or waterproof options.

These can accommodate many applications: coolers and freezers, computer rooms and computer equipment, cell tower sites, residential and vacation homes, etc.

(Sensor accuracy: ±0.5°C)

TEMP-H-S

TEMP-H-W

TEMP-UL-S
(EA800-ip only)

TEMP-L-S

TEMP-L-W

Humidity

The EnviroAlert® will provide a relative humidity reading for monitoring critical environments: greenhouses, humidors, document storage, computer rooms, cell tower sites, furniture storage, wine cellars, etc.

For use in non-condensing environments. NOT for use in cooler or freezer.

HA-III+

Water

Minimize damage from water leaks with the supervised WaterBug® sensor. It is ideal for use with or around laundry rooms, basement sump pumps, all drain areas, computer rooms, document storage areas, warehouses, A/C condenser trays, etc.

W-S-S

W-UC-S

EnviroAlert® Wired Sensors & Accessories	
TEMP-L-S	Low Temp Sensor, Stainless Steel (Blue) -58 to 158˚F (-50 to 70˚C)
TEMP-H-S	High Temp Sensor, Stainless Steel (Red) 32 to 302˚F (0 to 150˚C)
TEMP-L-W	Low Temp Sensor, Waterproof (Blue) -58 to 158˚F (-50 to 70˚C)
TEMP-H-W	High Temp Sensor, Waterproof (Red) 32 to 221˚F (0 to 105˚C)
TEMP-UL-S	Ultra-Low Temp Sensor, Stainless Steel (White) -148˚to 32˚F (-100 to 0˚C) ** EA800-ip only **
TEMP-P-H	Temperature Sensor Housing (fits Waterproof probes only)
TEMP-G-B	Bottle of Glycerin
TEMP-T-S	Tube and Z-Stand
TEMP-S-K	Flat Cable Splice Kit
HA-III+	Humidity Sensor
W-S-S	Supervised Water Sensor
W-UC-S	Supervised Under Carpet Water Sensor
EA-TBK	2 Piece Terminal Block Kit
12VDCT	12 VDC wall-mount power supply (500 mA max)

Sensors may be extended up to 1,000' from EnviroAlert console using 22 AWG Twisted Pair wire.

WATERBUG®

WB-200

Use in conjunction with alarm panel, wireless transmitter, etc. Run as many as 6 sensors wired in parallel up to 100' (30.48 m) away from the unit for wide area protection.

- Hardwire powered
- Includes one standard unsupervised surface sensor (W-S-U)
- Accepts standard unsupervised under carpet sensors (W-UC-U)
- One Form C relay output (N.O./N.C.)

WB-350

Same capabilities as WB-200 but 9V battery powered for a stand-alone option.

- Low battery alarm
- Integrated buzzer
- Includes one standard unsupervised surface sensor (W-S-U)
- Accepts standard unsupervised under carpet sensors (W-UC-U)
- Open-collector polarity sensitive output

Industry Preferred Water Detection System

Choose from three WaterBug® models for dependable water detection. Ideal for basement sump pumps, drain and storage areas, computer rooms, document storage areas, warehouses and sprinkler systems. WaterBug® sensors work when a conductive bridge is formed between two contacts.

WB-800

Connect up to 8 supervised (1 per zone) or 16 unsupervised (2 per zone) WaterBug® sensors up to 500' (152.4m) from console.
Dedicated single relay output simplifies wiring while 8 LEDs indicate which zone is in alarm.

- Built-in audible alarm with silence feature
- Includes four standard supervised surface sensors (W-S-S)
- Supervised sensors will alarm if wire is severed as well as when water is detected
- One Form C relay output (N.O./N.C.)

- Sensor options available for WB-800:
  - Standard surface sensor unsupervised (W-S-U)
  - Standard under carpet sensor unsupervised (W-UC-U)
  - Standard surface sensor supervised (W-S-S)
  - Standard under carpet sensor supervised (W-UC-S)

When water reaches a WaterBug® sensor, it activates relay to send signal; alarms, bells, wireless transmitters, etc.

WaterBug®	WB-200
Current Draw (Resting)	12, 24 VDC @ 35mA 12, 24 VAC @ 100mA
Sensitivity	Will not alarm due to high
Battery Life	N/A
Operating Range	
Output	1 Form C Relay (N.O./N.C.) 1 Amp @ 30 VDC, resistive 1 Amp @ 24 VAC, resistive
Buzzer	N/A
Sensors Included	1 Standard Unsupervised Surface Sensor (W-S-U)
Recommended Max Distance between Console and Probes	1-2 sensors; max 200' (61 m) 3-6 sensors; max 100' (30.5 m) per
Probe Dimensions (surface)	
Probe Dimensions (under carpet)	
Console Weight	.35 oz (0.10 kg)
Console Dimensions	3.15 x 2.36 x 1.18" (80 x 60 x 30 mm)
Mounting	Mounting flanges

Sensors may be extended to their recommended maximum distance (see above) from WaterBug consoles using 22 AWG Twisted Pair wire.

WaterBug® Sensors		EA200	EA400
W-S-S	Standard water surface sensor - Supervised	✓	✓
W-S-U	Standard water surface sensor Unsupervised		
W-UC-S	Standard water under carpet sensor - Supervised	✓	✓
W-UC-U	Standard water under carpet sensor - Unsupervised		

W-S-S
W-S-U

WB-350	WB-800
9VDC via alkaline battery @ 40 microamps	12, 24 VDC @ 75mA 12, 24 VAC @ 200mA
humidity or condensation	
Up to 1 year (not included)	N/A
Console and sensor 32 to 140˚F (0 to 60˚C)	
Open-collector output max to trip line: 30 VDC max to collector: 25mA	1 Form C Relay (N.O./N.C.) 1 Amp @ 30 VDC, resistive 1 Amp @ 24 VAC, resistive
Integrated (83 dB @ 30 cm @ 9VDC)	Audible alarm with silence feature (88 dB @ 10 cm @ 12VDC)
1 Standard Unsupervised Surface Sensor (W-S-U)	4 Standard Supervised Surface (W-S-S)
1-2 sensors; max 200' (61 m) 3-6 sensors; max 100' (30.5 m) per	500' (152.4 m) max
2 x 3 x .88" (5.1 x 7.6 x 2.2 cm)	
2 x 3 x .18" (5.1 x 7.6 x .5 cm)	
14 oz (0.40 kg)	1 lb (0.45 kg)
5 x 2.44 x 1.25" (12.7 x 6.2 x 3.18 cm)	6.55 x 4.70 x 1" (16.6 x 11.9 x 2.5 cm)
Key slot	Standard 3-gang box

EA800-ip	EA-WMFS	WB200	WB350	WB800
✓	✓			✓
		✓	✓	✓
✓	✓			✓
		✓	✓	✓

W-UC-S
W-UC-U

TEMP°ALERT ®

Powerless Operation
For Controlled Climates

Reliable and economical temperature protection for residential or commercial security systems. Wire units in parallel for simple, wide-area coverage. Ideal for computer rooms, residential/vacation homes, greenhouses, animal buildings and unattended buildings.
Not for use in cooler/freezer monitoring, instead choose an EnviroAlert® with sensor.

TA-1

Monitor high and low temperature limits by setting an acceptable temperature range with high and low limit arms.

- High and low-set points will activate virtually any alarm panel, dialer or wireless alarm
- Gold plated N.O. dry contacts
- No power required to operate

TA-2HL

Same temperature range as the TA-1, with additional feature of separate high and low temperature outputs.

- Separate high and low alarm outputs
- 15' (4.57 m) signal cable exits rear of unit for clean appearance
- Retro styling
- Gold plated N.O. dry contacts
- No power required to operate

MTA-1

Economical, sleek, low-profile temperature monitoring.

- High and low-set points will activate virtually any alarm panel, dialer or wireless alarm
- Separate high and low temperature outputs
- Sleek 1" (2.54 cm) profile
- Gold plated N.O. dry contacts
- No power required to operate

TA-40

Simple low-temperature monitoring. Perfect for residential and vacation homes, or unattended buildings. Low cost makes it easy to add redundancy to a system.

- Will activate virtually any alarm panel, dialer or wireless alarm
- N.C. dry contacts at temperatures above 39.2˚F (4˚C)
- Very small size for unobtrusive appearance
- No power required to operate

TempAlert®	TA-1	TA-2HL	MTA-1	TA-40
Power Requirements	No power required to operate			
Low Limit Adjust Range	-30 to 120˚F (-34 to 49˚C)		30 to 90˚F (-1 to 32.2˚C)	N/A
High Limit Adjust Range	-20 to 130˚F (-29 to 54˚C)		40 to 100˚F (4 to 37.7˚C)	N/A
Fixed Setting	N/A			N.O. ≤ 39.2˚F (4˚C)
Minimum Temp Span	10˚ - Recommended distance between high and low set points			N/A
Temp Accuracy	±3˚F (±1.7˚C)			±5.4˚F (±3˚C)
Temp Response Time	TC = 14 minutes			N/A
Temp Sensing Element	Bimetallic Coil			Bimetallic
Outputs (Not for high voltage use)	Gold plated N.O. dry contacts			N.C. dry contact
Contact Output Rating	12VDC @ 50mA			Voltage ≤ 24V AC/DC Current ≤ 200mA
Operating Range	32 to 122˚F (0 to 50˚C) Non-condensing ambient environments only			

POWER-OUT ALERT™

Economical Power Monitoring Solution

Applications include homes, computer rooms, supermarkets or anywhere power monitoring is critical.

PS-110   Power outage detector simply plugs into any 120 VAC outlet. 15' (4.57 m) signal output cable connects to any alarm panel, etc. When power is interrupted for 3-8 minutes, a dry contact closes producing a signal output. This time delay eliminates nuisance alarms from momentary outages. May be used as a wired accessory with EnviroAlert EA-WMFS

Power-Out Alert™ (PS-110)	
Application	Standard 2 blade 120V outlet
Contact Ratings	0.5 Amp @ 30 V
Time Delay	3 to 8 minutes, not adjustable
Operating Range	40 to 100˚F (4.5 to 37˚C)
Weight	9.3 oz (0.26 kg)
Dimensions	2.25 x 2 x 3" (5.7 x 5.1 x 7.6 cm)

POWER-OUT ALERT
PS-110-NO-SP
WINLAND ELECTRONICS, INC.

Sensor Placement and Installation

This application example shows many applications that could be monitored individually. The EA800-ip was selected to monitor the entire store using one console with hardwired and wireless sensors. Commercial food operations must comply with HACCP guidelines which require data logging of cooler/freezer temperatures. The EA800-ip console provides electronic data logging reducing risk of employee error.

Key points:

- The Temp-L-S stainless steel sensor is used in most cooler/freezer applications
- The Temp-L-W waterproof sensor can be immersed, i.e., lobster tanks, heavily washed areas, etc.
- Place sensor in the center of cooler/ freezer (contact a refrigeration contractor if necessary).
- Wired sensors have a maximum run length of 1000'
- Wireless sensor transmission range is 45' to 100' indoor (results may vary)
- Wireless sensors cannot be placed in coolers/freezers (use a hardwired sensor connected to an external EA-WMFS sensor, see Zone 8 example)

ZONE 1
Hardwired Input
Deli Cooler

ZONE 2
Hardwired Input
Dairy Cooler

Auxiliary Alarm

Hardwired Zones

Wireless Zones

Console to Panel Connection

This convenience store example illustrates 4 hardwired connections in Zones 1-4 and 4 wireless connections in Zones 5-8. All EnviroAlert consoles have an auxiliary output relay to accommodate remote buzzers and strobes (or as an optional single output to the alarm panel). All EnviroAlert products can be powered from the security panel.

Data Logging

- Available for 3 years, Insight's cloud-based data can be viewed on-line, via real-time reporting, scheduled email .pdf reports or downloaded in .csv format. Requires a fee-based subscription.

- Locally, 10,000 data points per sensor are transferable to a USB memory stick.

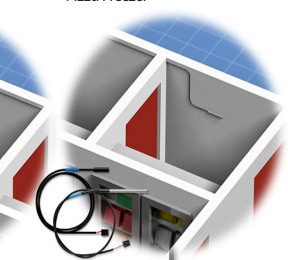Alarm Panel

Cooler/Freezer Monitoring

Coolers/freezers can be monitored using hardwire sensors or wireless sensors. Wireless monitoring requires the EA-WMFS with a sensor. When programming, remember frost-free coolers/freezers have a defrost cycle where the internal temperature rises above freezing. Program the alarm delay accordingly to avoid false alarms. Programming menus available in Product Manual online at EA800ip.net
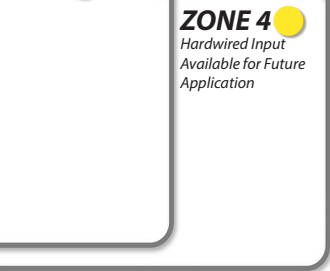
Hardwired Installation:
Select blue sensor (TEMP-L-S or TEMP-L-W)

ZONE 3
Hardwired Input
Pizza Freezer

ZONE 5
Wireless Input
Walk In Freezer
Door Contact

Wireless Installation:
Select EA-WMFS +
N.O./N.C. dry contact sensor

Dry Contact (N.O./N.C.)
Many applications call for monitoring door contacts. The EnviroAlert EA800-ip accepts non-proprietary dry contact devices. This example shows wireless installation but they can also be hardwired.

ZONE 4
Hardwired Input
Available for Future
Application

Wireless Connections

Applications which use an EA-WMFS wireless sensor require the connection of a sensor for the specific condition to be monitored.
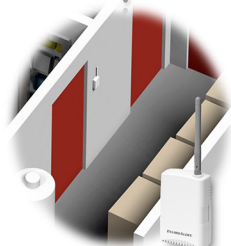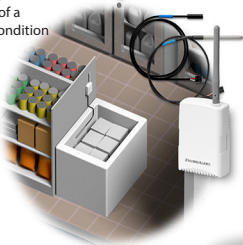
Wireless Installation:
Select EA-WMFS and appropriate sensor

ZONE 8
Wireless Input
Chest Freezer

Wireless Installation:
Select EA-WMFS + sensor

ZONE 6
Wireless Input
Dry Storage Humidity
Wireless Installation:
Select EA-WHS

WaterBug®
The Winland WaterBug® you have relied on for years monitors for water presence. This is an excellent choice for water heater areas as well as coffee and beverage bars in convenience stores. The WaterBug® W-S-S is a supervised sensor that alarms when water is present as well as when the cable has been severed.

ZONE 7
Wireless Input
Water Presence
Near Water Heater

Wireless Installation:
Select EA-WMFS + W-S-S

WINLAND™
ELECTRONICS, INC.

Tech Support techsupport@winland.com
Insight Support insightsupport@winland.com
Customer Service customerservice@winland.com