

MONITORING  
&  
ALERTING

## HOW LONG BEFORE YOU KNOW SOMETHING IS WRONG?

Countless industries depend on Sensaphone for the most comprehensive remote monitoring systems available. When you need to be absolutely sure a remote site is stable, secure, and monitored around the clock, there's no substitute for certainty.

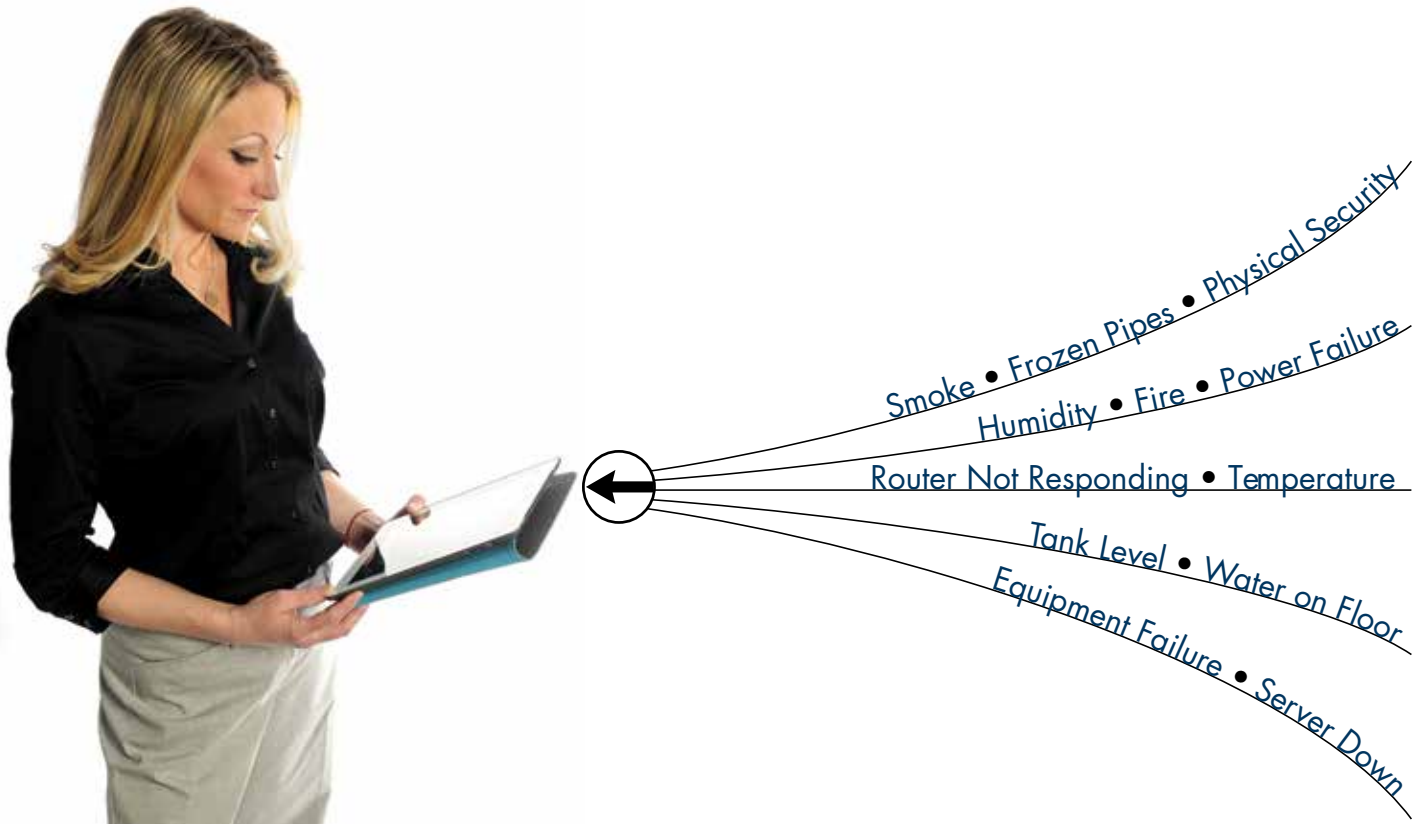


Family owned and made in the USA since 1985

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# What is a Sensaphone?



## 24/7 Monitoring

A SENSAPHONE is useful for monitoring any asset that is environmentally sensitive, susceptible to failure, or needs to be watched when personnel is not on site.

## Alarm Notification

SENSAPHONE products can notify you in a variety of ways when a problem is detected. They can call you on the phone and talk to you about an event that is occurring. They can text or e-mail you. As soon as a situation arises, the Sensaphone will find you and tell you about it.

## Real Time Status

Even when there are no critical events, you can always check the status of your remote site to give you peace of mind. You can check the live status on a website or mobile app, or you can make a phone call and hear the Sensaphone tell you that everything is okay.

If you have something important at a remote site, then  
you need a **SENSAPHONE** to watch it for you.



# Why Choose Sensaphone?

Sensaphone products are designed to help you watch over a remote facility. Our range of Sensaphone solutions can instantly inform you when conditions are less than perfect, plus you can check on the status at anytime. Sensaphone is the leader in remote monitoring with over 30 years in business and over 400,000 installed systems worldwide.

Our vast experience has helped us to design products that are reliable, easy to use, flexible, and affordable. Listed below are just some of the reasons that Sensaphone is the best choice for your remote monitoring application.

## **Real Sensor Values:**

We design our products with universal inputs that can read actual temperature values, tank levels, or other sensor information. You will always know the actual value of the monitored condition whether it is just okay or not okay.

## **Battery Backup:**

All Sensaphone products include battery backup. Unlike other systems, when the power goes out, your Sensaphone product will continue to operate and deliver alarms and status.

## **Maximum Flexibility:**

Solutions are available from Sensaphone to notify you using custom voice phone calls, e-mails, text messages, SNMP traps, and more. Our products can communicate using phone lines, Ethernet, Wi-Fi, cellular, or satellite.

## **Remote Access:**

Whether it's one of our traditional phone line products, cellular products, satellite products, or web-based products, there is always the ability for you to make programming changes remotely. With Sensaphone, you always have access to your critical information.

## **Field Proven in Sensitive Applications:**

Sensaphone products have been successfully deployed to monitor the most sensitive applications including: emergency vaccines, medicines, tissue samples, blood banks, Homeland Security emergency response materials, military weapons systems, and countless others.

## **Innovation:**

We have our own in-house engineering team that is always busy. The Sensaphone tech team is constantly working on current and future technologies to make our products even more powerful and easier to use. Sensaphone currently owns three US Patents for our unique technologies.

## **Easy To Use:**

One of the most obvious differences between Sensaphone products and any similar system is the ease of use. We make it a priority to make the programming and setup of our products to be as simple and clear as possible. Our programming interfaces are designed to be intuitive and not use any complicated codes or commands that you will see in other systems. Some of our products, like the IMS Series, will even automatically detect what type of sensor you have connected and configure it for you. If you need any assistance with your Sensaphone product, our owner's manuals are very extensive with many examples and pictures. And if you still need more help we offer unlimited, toll free, telephone technical support. Just call us and we will walk you through it.

## **Low Monthly Fees:**

Many Sensaphone products do not have a monthly fee. You buy the product and it works with an existing phone line or ethernet connection. If you're using a cellular product, Sensaphone provides a fast and easy subscription service. There's no fumbling with SIM cards or worrying about overages.

## **Made In The USA:**

Sensaphone is based in Aston, Pennsylvania where we design and build our products. All aspects of the engineering design, manufacturing, servicing, testing, and support, are performed here in the United States.

## **Contact Us:**

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# Table of Contents

Sensaphone wants to make the purchasing of your unit as accurate and painless as possible. Over the course of decades of environmental monitoring experience, we put together this guide to help you understand what are the key monitoring factors for your application. Inside you will find information on which unit will best fit your application's specific needs. If you're not sure where to start take a look at our suggested basic monitoring packages. Several different popular advanced options are also recommended for each application.

## Data Center



From small computer rooms to large data centers located around the globe, Sensaphone has an alarm monitor to fit your application. Sensaphone network based monitors are designed to detect, alarm, and notify you of any unfavorable condition immediately, regardless of where you are.

## Water Treatment



Sensaphone systems are a perfect fit for the remote monitoring of water plants, labs, and other facilities. Operators in the water, wastewater, and environmental remediation industries use Sensaphone equipment to monitor water and wastewater treatment and management, pumping stations, operating equipment, labs, and offices.

## Residential



Sensaphone products monitor residences for environmental conditions that could be potential threats to an unattended home such as temperature, humidity, and the presence of water. They also monitor for power outage, high sound alarms, and can even allow remote thermostat control.

## Cold Storage



Faulty compressors, power outages, or doors left ajar can cause a major catastrophe in your Cold Storage environment. Prevent substantial financial loss by receiving early warning alarm notifications with a recommended Sensaphone product.

## Livestock



Sensaphone systems monitor temperature, power failure and surges, ventilation/fans, smoke and fire alarms, and alert to condition deviations before damage to animals or inventory occur. The Sensaphone line helps ensure that environments are always under control with optimum conditions.

## Greenhouse



A Sensaphone can monitor a greenhouse for extreme temperature fluctuations, frost protection, frozen irrigation lines, heater, and fan failures. From small nurseries to large commercial greenhouse facilities, Sensaphone protects 24 hours a day, 7 days a week.

## Oil & Natural Gas



Sensaphone offers two solutions – either satellite or cellular based – to monitor power failures, temperature, tank levels, pressure, flow, and other selected conditions—helping oil and gas operators protect against equipment damage and downtime.

## HVACR



Keeping indoor environments comfortable and safe can require many moving parts. Sensaphone products remotely monitor unattended HVAC units such as chillers and boilers. The Sensaphone line helps ensure that environments are always under control with optimum conditions.



## Sensaphone Monitoring Systems



### Sensaphone Sentinel . . . . .pg 18

- Manage multiple devices from one account.
- Access status and programming from a mobile app or desktop.



### Sensaphone Sentinel Pro. . . . .pg 20

- Adds ability to monitor Modbus sensors and additional output.
- Access status and programming from mobile app or desktop.
- A supervised internet connection assures the Sentinel Pro is online



### Sensaphone Stratus EMS . . . . .pg 22

- Monitor Modbus sensors and two outputs.
- Access status and programming from mobile app or desktop.
- Rack mountable



### Sensaphone WEB600. . . . .pg 24

- Web based system with data logging
- Flexible sensor options, including 4-20mA analog.



### Sensaphone WSG30. . . . .pg 26

- Accepts up to 30 wireless sensors.
- Works with existing HMI systems.
- Receive alarm notifications through a standard Ethernet connection



### Sensaphone SAT4D . . . . .pg 28

- Able to monitor very remote locations by using direct satellite communications.
- No power supply required – runs on battery power for up to three years



### Sensaphone 400/800 . . . . .pg 30

- Convenient telephone calls for alarms and status.
- Best way to monitor a vacation home without a monthly fee.
- Listen to on-site sounds by calling unit



### Sensaphone 1400/1800 . . . . .pg 32

- Able to monitor outdoors and in harsh environments.
- Notifies up to eight people by voice phone call in the event of an alarm



### Sensaphone Express II . . . . .pg 34

- Expand inputs and outputs to 40.
- Voice guided keypad interface.
- Notifies up to 48 people by voice phone call in the event of an alarm



## Sensaphone Monitoring Sensors & Accessories

### Temperature Sensors . . . . .pg 38

### Humidity Sensors . . . . .pg 42

### Water Detection Sensors . . . . .pg 44

### Carbon Dioxide Sensors. . . . .pg 46

### Air Quality Sensors . . . . .pg 47

### Security Sensors . . . . .pg 48

### Power Sensors & Accessories . . . . .pg 49

### Pressure Sensors . . . . .pg 50

### Water Quality Sensors . . . . .pg 52

### WSG30 Wireless Sensors. . . . .pg 53



## Sensaphone IMS Monitoring Expansion, Sensors & Accessories

### Sensaphone IMS-1000. . . . .pg 56

- Effective infrastructure monitoring and alarm notification for a single location.

### Sensaphone IMS-4000 . . . . .pg 58

- Effective infrastructure monitoring and alarm notification for multiple locations.

### IMS-4000 Node . . . . .pg 60

### IMS-4000 Dual Relay Output Module . . . . .pg 61

### IMS-4000 Dry Contact Node . . . . .pg 61

### IMS Sensors & Accessories. . . . .pg 62



## Sensaphone Product Comparison

|                          | Sentinel                       | Sentinel Pro                   | Stratus EMS                    | SAT4D         | WEB600                         |
|--------------------------|--------------------------------|--------------------------------|--------------------------------|---------------|--------------------------------|
| Inputs                   | 12                             | 76                             | 76                             | 4             | 6                              |
| Outputs                  | 1                              | 2                              | 2                              | 0             | 1                              |
| <b>Input Type</b>        |                                |                                |                                |               |                                |
| Dry Contact              | ✓                              | ✓                              | ✓                              | ✓             | ✓                              |
| Thermistor               | -109° to 168°F<br>-85° to 76°F | -109° to 168°F<br>-85° to 76°F | -109° to 168°F<br>-85° to 76°F | N/A           | -109° to 168°F<br>-85° to 76°F |
| Modbus                   |                                | ✓                              | ✓                              |               |                                |
| 4-20mA                   | ✓                              | ✓                              | ✓                              |               | ✓                              |
| Wireless Sensors         |                                |                                |                                |               |                                |
| I/O Expansion            |                                |                                |                                |               |                                |
| Sound Level Monitoring   |                                |                                |                                |               |                                |
| Remote Programming       | ✓                              | ✓                              | ✓                              | ✓             | ✓                              |
| Alarm Notifications      | Unlimited                      | Unlimited                      | Unlimited                      | 14            | 32                             |
| <b>Alarm Delivery</b>    |                                |                                |                                |               |                                |
| Offline Status Alarm     | ✓                              | ✓                              | ✓                              |               |                                |
| Voice Phone Call         | Optional                       | Optional                       | Optional                       | ✓             |                                |
| Email                    | ✓                              | ✓                              | ✓                              | ✓             | ✓                              |
| SMS Text Message         | Optional                       | Optional                       | Optional                       | ✓             | ✓                              |
| Internal Web Server      |                                |                                |                                |               | ✓                              |
| Audit Trails & Reporting | ✓                              | ✓                              | ✓                              |               |                                |
| Mobile App               | ✓                              | ✓                              | ✓                              |               |                                |
| Web Status               | ✓                              | ✓                              | ✓                              | ✓             | ✓                              |
| Datalogging              | ✓                              | ✓                              | ✓                              |               | ✓                              |
| Communication            | Ethernet or Cellular           | Ethernet or Cellular           | Ethernet or Cellular           | Satellite     | Ethernet                       |
| Enclosure                | Metal or NEMA-4X               | Metal or NEMA-4X               | Metal                          | NEMA-4X       | Plastic                        |
| Mounting                 | Table or wall                  | Table or wall                  | Rackmount                      | Panel or Pole | Table or wall                  |
| Battery Backup           | ✓                              | ✓                              | ✓                              | ✓             | Optional                       |
| Monthly Fee              | Optional                       | Optional                       | Optional                       | ✓             | No                             |



|  | WSG-30                         | 400   800                     | 1400   1800                    | Express II                     | IMS-1000                       | IMS-4000                       |
|--|--------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|  | Up to 30                       | 4   8                         | 4   8                          | 8-40                           | 8                              | 8-256                          |
|  | 0                              | 1                             | 1                              | 1-17                           | 1                              | Optional                       |
|  |                                |                               |                                |                                |                                |                                |
|  | ✓                              | ✓                             | ✓                              | ✓                              | ✓                              | ✓                              |
|  | -109° to 168°F<br>-85° to 76°F | -20° to 150°F<br>-30° to 65°C | -109° to 168°F<br>-85° to 76°F | -85° to 300°F<br>-65° to 149°C | -122° to 140°F<br>-85° to 60°C | -122° to 140°F<br>-85° to 60°C |
|  |                                |                               |                                |                                |                                |                                |
|  | ✓                              |                               | ✓                              | ✓                              | ✓                              | ✓                              |
|  | ✓                              |                               |                                |                                |                                | Opt                            |
|  |                                |                               |                                | ✓                              |                                | ✓                              |
|  |                                | ✓                             | ✓                              | ✓                              |                                | ✓                              |
|  | ✓                              | ✓                             | ✓                              | ✓                              | ✓                              | ✓                              |
|  | 32                             | 4   8                         | 4   8                          | 48                             | 64                             | 512                            |
|  |                                |                               |                                |                                |                                |                                |
|  |                                |                               |                                |                                |                                |                                |
|  |                                | ✓                             | ✓                              | ✓                              | Optional                       | ✓                              |
|  | ✓                              |                               |                                |                                | ✓                              | ✓                              |
|  | ✓                              |                               |                                |                                | ✓                              | ✓                              |
|  | ✓                              |                               |                                |                                | ✓                              | ✓                              |
|  |                                |                               |                                |                                |                                |                                |
|  |                                |                               |                                |                                |                                |                                |
|  | ✓                              |                               |                                |                                | ✓                              | ✓                              |
|  | ✓                              |                               |                                |                                | ✓                              | ✓                              |
|  | Ethernet                       | Phone Line                    | Phone Line                     | Phone Line                     | Ethernet (Optional Phone)      | Ethernet & Phone               |
|  | Plastic                        | Plastic                       | NEMA 4X                        | NEMA 4X                        | Metal                          | Metal                          |
|  | Table or wall                  | Table or wall                 | Wall                           | Wall                           | Rackmount or Tabletop          | Rackmount or Tabletop          |
|  | ✓                              | ✓                             | ✓                              | ✓                              | ✓                              | ✓                              |
|  | No                             | No                            | No                             | No                             | No                             | No                             |



# Data Center

## OVERVIEW

“We’re offline again!” No one wants to hear those words. Computer downtime is no longer acceptable in our fast paced world, so keeping your systems up and running should be a high priority. Sensaphone has a solution to watch over any size computer facility from small computer closets to large data centers. Be notified immediately whenever something starts to threaten the operation of your computer systems.



Server Temperature



Security



Humidity



Connectivity



Power Failure



UPS



Water

## STARTER SOLUTION

### Sensaphone Sentinel



The Sensaphone Sentinel system is an easy, cost-effective, cloud-based monitoring solution ideal for smaller-scale computer rooms that may require expansion. The system can monitor up to twelve environmental conditions including temperature, humidity, air quality, power failure and water detection. Sentinel users can make programming changes, access status conditions and review data logs online through any web-enabled device. In the event of an alarm, the device can notify an unlimited number of users by phone call, email, or text message.

SCD-1200 . . . . .pg 18

## ADVANCED SENSAPHONE SOLUTIONS

### Sensaphone Stratus EMS



The Sensaphone Stratus EMS Monitoring Solution simultaneously monitors UPS, CRAC and other HVAC devices and the data center environment to safeguard continuous performance and avoid costly downtime. The system monitors, delivers alarms, and data logs input/output points from third-party Modbus capable equipment as well as monitoring critical conditions such as temperature, humidity, smoke, motion water leaks, intrusion and power outages. In the event of an alarm, the device can notify an unlimited number of users by phone call, email, or text message.

Stratus EMS . . . . .pg 22

### Sensaphone IMS-4000



The IMS-4000 provides a very modular and expandable remote monitoring solution for a wide area enterprise solution. An Ethernet connection and a phone line connection allow for redundant alarm notification. The system is designed for monitoring multiple locations by using one Host and up to 31 Nodes. Each Host or Node can monitor up to eight sensors, and the group of Hosts and Nodes can be managed from one common interface.

IMS-4001E . . . . .pg 58

IMS-4002E . . . . .pg 60





# Water Treatment

## OVERVIEW

Sensaphone provides a wide variety of solutions available for remote water and wastewater facilities. Products are available to perform monitoring and alarm notification, and data logging at remote pump and lift stations. The new Sentinel Pro allows you to access into your PLC to see real time values, data log and alarm on it's information. Whatever level of remote monitoring and alarming you need, Sensaphone has a solution to keep you informed and in control 24/7.



Tank Levels



Power Failure



Flow Rates



Turbidity



Pump Status



Security



Equipment Failure

## STARTER SOLUTION

### Sensaphone 1400 & 1800



The Sensaphone 1400 system remotely monitors unattended water and wastewater applications. When environmental changes or equipment malfunctions threaten wastewater facilities, the Sensaphone 1400 system automatically alerts managers who can quickly address the potentially costly situation. The system is a simple, convenient, cost-effective solution ideal for smaller operations. The system monitors status conditions 24/7, for up to four conditions. When the system identifies a potential problem, it can immediately alert up to eight people with custom phone calls. The internal rechargeable battery backup provides 24 hours of continuous monitoring and alerts in the event of a power outage. Each unit is sealed in an enclosure to protect it from moisture, dirt, and chemicals. Operators can obtain the status of each monitored condition at the installation site or by telephone.

FGD-1400 | FGD-1800 . . . . .pg 32

## ADVANCED SENSAPHONE SOLUTIONS

### Sensaphone Sentinel with Cell Modem



The Sentinel is a cellular-based system that remotely monitors up to 12 different environmental and equipment status conditions in water and wastewater applications. When the Sentinel detects issues, it instantly sends alerts via phone, text or email over standard cellular networks. The system is ideal for operations where Internet or landline connectivity is unavailable. Users can access information and make system changes from any web-enabled device. The Sentinel stores all readings in the cloud, which protects against data loss, provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy. The Sentinel can deliver daily event reports and generate an audit trail of user data activities.

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### Sensaphone Sentinel PRO with Cell Modem



The Sentinel PRO operates on the same platform as the Sentinel, however it is capable of remotely monitoring up to 64 Modbus registers and 12 different digital or analog inputs. The system monitors, delivers alarms and datalogs input/output points from third-party Modbus sensors, transducers and programmable logic controllers (PLCs). It supports Modbus RTU/485 and Modbus TCP. When Sentinel PRO detects issues, it instantly sends alerts via phone, text or email over standard cellular networks. Users can access information and make system changes from any web-enabled device or a mobile app. No software is required, so installation, integration and management are easy.

SCD-PRO-4G . . . . .pg 20





## OVERVIEW

If you are away from your home for long periods of time, or if you have more than one home, then a Sensaphone can give you the peace of mind to know that everything is okay. In addition to monitoring and alarming for critical problems, the Sensaphone 400 can allow you to change your thermostat remotely between two set points. The best part is that there are no monthly fees. Once you purchase a Sensaphone you never have to pay any service fees to use it.



Freezing Pipes



Water



Smoke & Fire



Security



Power Failure

## SENSORS AND ACCESSORIES

|                                    |       |
|------------------------------------|-------|
| 2.8K Temperature Sensors . . . . . | pg 38 |
| Water Detection Sensors . . . . .  | pg 44 |
| Humidity Sensors . . . . .         | pg 43 |
| Power Failure Switch . . . . .     | pg 49 |
| Door / Window Switch . . . . .     | pg 48 |
| Motion Detection Sensor . . . . .  | pg 48 |
| Smoke Detector . . . . .           | pg 48 |

## RESIDENTIAL SENSAPHONE SOLUTIONS

### Sensaphone 400 & 800



The Sensaphone 400 provides the important functions that you need to monitor your vacation home, cabin, or primary home. It comes with a pre-installed temperature sensor that you can program for any temperature level you need to warn for potential frozen pipes. The 400 will also detect power failures and even includes a microphone to listen for the sound of a smoke detector. If any problems are detected, it will make four phone calls to you, your family, friends, or neighbors to announce the problem in your own customized voice.

FGD-0400 . . . . .pg 30

### Sensaphone Sentinel



The Sensaphone Sentinel provides homeowners a flexible cloud-based remote monitoring option at an affordable price. It helps to keep track of critical conditions such as temperature, humidity, the presence of water on a floor, and other conditions. Users can be notified immediately when current values exceed the normal range via an e-mail, phone call or text message. A battery backup provides uninterrupted power to the Sentinel for approximately eight hours in the event of a power loss. The system is configured to monitor the battery backup and send an alarm when the battery becomes low.

SCD-1200 . . . . .pg 18





## OVERVIEW

Whether you are storing frozen foods, medical tissue samples, or critical vaccines, Sensaphone has a solution to help you verify that everything is stored at the correct temperature. Products are available to monitor standard freezer temperatures and even  $-80^{\circ}\text{C}$  ultra low freezer temperatures. Early warning detection can also be performed by watching other critical conditions like power failure, equipment failure, leaks, and more. Upgraded Sensaphone solutions can also perform detailed temperature data logging and trending in addition to instant alarm notification.



Temperature



Smoke & Fire



Humidity



Power Failure



Ventilation



Security

## CLOUD-BASED SOLUTION

### Sensaphone Sentinel



The Sentinel remotely monitors freezers and refrigerators to protect valuable cold storage assets. The Sentinel system monitors up to 12 different environmental and equipment status conditions including temperature from  $-109^{\circ}\text{F}$  to  $168^{\circ}\text{F}$ , humidity, power failure and water detection. When the system identifies issues, it instantly sends alerts via phone, text or email over a standard Internet connection. It can also deliver daily event reports. Users can access information and make system changes from any web-enabled device. The system stores all readings in the cloud, which protects against data loss, provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy.

SCD-1200 . . . . .pg 18

## WEB-BASED SOLUTIONS

### Sensaphone WSG30



The WSG30 system remotely monitors freezers and refrigerators to protect valuable medical, food, and research assets. The WSG30 is a flexible web-based monitoring solution for use when hardwiring sensors is not a cost-effective or viable option. A single WSG30 unit can support up to 30 wireless sensors, which is ideal for expanding operations. The system can monitor conditions including temperature from  $-109^{\circ}\text{F}$  to  $115^{\circ}\text{F}$ , humidity, power failure and water detection. In the event of an alarm, the WSG30 system notifies up to 32 people by e-mail, or text message. WSG30 users can make programming changes, access status conditions and review data logs on a local network.

WSG30 Wireless Sensors . . . . .pg 53

FGD-WSG30 . . . . .pg 26

### Sensaphone IMS-1000



The IMS-1000 system remotely monitors freezers and refrigerators to protect valuable food and medical assets and cold storage equipment. The system is ideal for food manufacturing, processing and storage facilities, research and testing laboratories, and food service and retail locations. The system can monitor up to eight external conditions such as temperature, humidity, power failure and water detection. A built-in web server lets you view status, make changes and review history. In the event of an alarm, the system can notify users by e-mail, text message or voice phone call.

IMS-1002 . . . . .pg 56





## OVERVIEW

Whether you're raising swine, poultry, or other livestock, a simple equipment failure can quickly spell disaster if not fixed right away. To help keep your livestock alive and healthy, you need to watch over their environment and respond quickly to any problems that may arise. Sensaphone products provide the instant alarm notification that you need to keep things running smoothly.



Air Temperature



Smoke & Fire



Humidity



Power Failure



Ventilation



Security

## CELLULAR SOLUTION

### Sensaphone Sentinel with Cellular Modem



The Sentinel system remotely monitors livestock facilities to keep animals safe and operations running smoothly. The Sentinel system monitors up to 12 different environmental and equipment status conditions including temperature, humidity, power failure and water detection. When the system identifies issues, it instantly sends alerts via phone, text or email. It can also deliver daily event reports. Users can access information and make system changes from any web-enabled device. The system stores all readings in the cloud, which protects against data loss, provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy.

SCD-1200-4G . . . . .pg 18

## PHONE-BASED SENSAPHONE SOLUTIONS

### Sensaphone 1400



The 1400 remotely monitors livestock facilities to help keep animals safe and operations running smoothly. The system is a simple, convenient, cost-effective solution ideal for smaller facilities. The system monitors status conditions 24/7, including indoor and outdoor

temperature, humidity, ventilation, carbon dioxide, power failure and security for up to four locations. When the system identifies a potential problem, it can immediately alert up to eight people with custom phone calls. The internal rechargeable battery backup provides 24 hours of continuous monitoring and alerts in the event of a power outage. Each unit is sealed in an enclosure to protect it from moisture, dirt and chemicals. Operators can obtain the status of each monitored condition at the installation site or by telephone.

FGD-1400 . . . . .pg 32

### Sensaphone Express II



The Express II remotely monitors livestock facilities to help keep animals safe and operations running smoothly. Immediate notification of equipment failure allows for prompt corrective action. The standard system provides 24/7 monitoring of up to eight

conditions. The Express II system is ideal for facilities with growing needs because it is expandable to include up to 40 channels. When the system identifies a potential problem, it can immediately alert up to 48 people with custom phone calls. The internal rechargeable battery backup provides 12 hours of continuous monitoring and alerts in the event of a power outage. Each unit is sealed in an enclosure to protect it in harsh environments. The LCD window displays continuous status information and provides keypad programming for easy setup.

FGD-6700 . . . . .pg 34





## OVERVIEW

Keeping your plants alive and healthy requires the best possible growing environment. Sensaphone can provide you with the proper notification system to let you know immediately when something is not perfect in your greenhouse. Many conditions can be monitored from sensors available from Sensaphone, but third party aftermarket sensors can work as well. Receive instant phone call notification as soon as conditions deviate from acceptable levels.



Indoor Temperature



Outside Temperature



Humidity



Power Failure



Ventilation



Security

## CELLULAR SOLUTION

### Sensaphone Sentinel with Cellular Modem



The Sentinel remotely monitors greenhouses to prevent loss of valuable plant assets. The Sentinel system monitors up to 12 different environmental and equipment status conditions including temperature, humidity, power failure and water detection. When the system identifies issues, it instantly sends alerts via phone, text or email. Users can access information and make system changes from any web-enabled device. The system stores all readings in the cloud, which provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy. The standard Sentinel system is Ethernet based, but the product is also available with a cellular option for locations where Internet connectivity is not available.

SCD-1200-4G . . . . .pg 18

## PHONE-BASED SENSAPHONE SOLUTIONS

### Sensaphone 1800



The 1800 remotely monitors greenhouse facilities to help keep plants safe and operations running smoothly. The system is a simple, convenient, cost-effective solution ideal for smaller facilities. The system monitors status conditions 24/7, including indoor and outdoor temperature, humidity, ventilation, carbon dioxide, power failure and security for up to four locations. When the system identifies a potential problem, it can immediately alert up to eight people with custom phone calls. The internal rechargeable battery backup provides 24 hours of continuous monitoring and alerts in the event of a power outage. Each unit is sealed in an enclosure to protect it from moisture, dirt and chemicals. Operators can obtain the status of each monitored condition at the installation site or by telephone.

FGD-1800 . . . . .pg 32

### Sensaphone Express II



The Express II remotely monitors greenhouses to prevent loss of valuable plant assets. The system is ideal for larger greenhouse operations that require many monitoring points or are considering future growth because it is expandable to include up to 40 channels. When the system identifies a potential problem, it can immediately alert up to 48 people with custom phone calls. The internal rechargeable battery backup provides 12 hours of continuous monitoring and alerts in the event of a power outage. Each unit is sealed in an enclosure to protect it from moisture, dirt and chemicals commonly found in a greenhouse environment. The LCD window displays continuous status information and provides keypad programming instructions for easy setup.

FGD-6700 . . . . .pg 34





## OVERVIEW

Remote oil and natural gas equipment locations need to be watched, and Sensaphone has three product solutions for these remote areas. A wide variety of conditions can be monitored for alarm and trending with access from any computer with a web browser.



Tank Levels



Power Failure



Flow Rates



Turbidity



Pump Status



Security



Equipment Failure

## SATELLITE SOLUTION

### Sensaphone SAT4D



The SAT4D monitors equipment operating at oil and gas wells, refineries and storage facilities to protect valuable assets and avoid costly downtime. Because it communicates via satellite, the system is ideal for facilities in the most remote locations where

telephone, Ethernet and cellular connections are unavailable. The system can monitor up to four critical conditions 24/7, including tank floats, pump status, security, power failure and equipment failure. If the system detects a potential problem, it sends alarm notifications to up to eight telephone numbers or six email addresses. The SAT4D system runs without power and can operate for over three years on a replaceable internal battery. GPS locator technology pinpoints exactly where mobile oil & gas equipment is located. Each unit is Class 1/Div 1 rated and sealed in an enclosure to protect it from harsh conditions.

FGD-SAT4D . . . . . pg 22

## CELLULAR SOLUTIONS

### Sensaphone Sentinel with Cellular Modem



The Sentinel is a cellular-based system that remotely monitors up to 12 different environmental and equipment status conditions including tank levels, power failures, flow rates, pump status, and more.

When the Sentinel detects issues, it instantly sends alerts via phone, text or email over standard cellular networks. The system is ideal for operations where Internet or landline connectivity is unavailable. Users can access information and make system changes from any web-enabled device. Sentinel stores all readings in the cloud, which provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy. The Sentinel can deliver daily event reports and generate an audit trail of data activities.

SCD-1200-CL . . . . . pg 18

### Sensaphone Sentinel PRO with Cell Modem



The Sentinel PRO operates on the same platform as the Sentinel, however it is capable of remotely monitoring up to 64 Modbus registers and 12 different digital or analog inputs. The system monitors, delivers alarms and datalogs input/output points from third-party Modbus

sensors, transducers and programmable logic controllers (PLCs). It supports Modbus RTU/485 and Modbus TCP. When Sentinel PRO detects issues, it instantly sends alerts via phone, text or email over standard cellular networks. Users can access information and make system changes from any web-enabled device or a mobile app. No software is required, so installation, integration and management are easy.

SCD-PRO-4G . . . . . pg 20





## OVERVIEW

Keeping indoor environments comfortable and safe can require many moving parts. Sensaphone products remotely monitor unattended HVAC units such as chillers and boilers. When environmental changes or equipment malfunctions threaten HVACR units and the assets they protect, the system automatically alerts facility managers, who can quickly address the potentially costly situation.



Indoor Temperature



Outside Temperature



Humidity



Power Failure



Ventilation



Security

## PHONE-BASED SOLUTION



### Sensaphone 1800

The 1800 is a simple, convenient, cost-effective solution ideal for smaller operations. The system monitors status conditions 24/7, for up to eight conditions. When the system identifies a potential problem, it can immediately alert up to eight people with custom phone calls. The internal rechargeable battery backup provides 24 hours of continuous monitoring and alerts in the event of a power outage. Operators can obtain the status of each monitored condition at the installation site or by telephone.

FGD-1800 . . . . . pg 32

## CLOUD-BASED SOLUTIONS

### Sensaphone Sentinel



The Sentinel monitors up to 12 different environmental and equipment status conditions. When the system identifies issues, it instantly sends alerts via phone, text or email over a standard Internet connection. Users can access information and make system changes from any web-enabled device. The system stores all readings in the cloud, which protects

against data loss, provides unlimited information storage and allows multiple devices to be managed from one account. No software is required, so installation, integration and management are easy.

SCD-1200 . . . . . pg 18

### Sensaphone Sentinel Pro



The Sentinel PRO operates on the same platform as the Sentinel, however it is capable of remotely monitoring up to 64 Modbus registers and 12 different digital or analog inputs. The system monitors, delivers alarms and datalogs input/output points from third-party Modbus sensors, transducers and

building automation systems. It supports Modbus RTU/485 and Modbus TCP. When Sentinel PRO detects issues, it instantly sends alerts via phone, text or email over standard cellular networks. Users can access information and make system changes from any web-enabled device or a mobile app.

SCD-PRO . . . . . pg 20





## MULTIPLE OPTIONS FOR A WIDE VARIETY OF APPLICATIONS

### Sentinel vs Sentinel Pro

The Sentinel PRO system adds the ability to support the Modbus communications protocol and includes a second relay output – capabilities required to monitor and control complex networks. The Sentinel Pro allows users to poll up to 64 Modbus registers.

### Protect your investment

Both of the Sentinel systems are made to be robust. They'll provide many years of monitoring as long as they're installed in a clean, dry environment. If not, they can be purchased in a weatherproof enclosure for monitoring in harsh conditions.

### Cellular Communications

The standard Sentinel and Sentinel Pro systems are Ethernet based, but are also available with a cellular option for remote locations that do not have Internet access. Choose between a cellular service plan from AT&T, Verizon or Rogers.

### Add WiFi

The Sensaphone Ethernet-to-WiFi Adapter (FGD-0250-U) adds the ability to use a wifi signal rather than a hard Internet connection. The Adapter features a weatherproof housing that ensures continued operation in harsh outdoor environments.

## + SENTINEL CLOUD & MOBILE APP



- **Manage** an unlimited number of devices from one account
- **Store** an unlimited number of datalogged records
- **Receive** an e-mail, phone call, or text message when an alarm has been detected
- **Real time** status updates available
- **Mobile App** available



# CLOUD-BASED MONITORING...

## CONVENIENT WEB-BASED MANAGEMENT



### CLOUD SUPERVISED

Rest assured that your system is up and running 24/7. The device is in constant communication with our cloud servers. If the cloud notices that your device is no longer communicating, you'll receive an alarm.



### MANAGE MULTIPLE DEVICES

Need more than one device? No problem. You can manage as many devices as needed from a single login. The flexible interface allows supervisors to give permissions to different users.



### BATTERY BACKED FOR 8 HOURS

What happens when the power goes out? The system will send an alarm and keeps recording data and operating as usual. With a rechargeable battery backup system, both cellular and Ethernet based Sentinel systems will operate for up to 8 hours on battery power.



## DATALOGGING IN REAL TIME WITH ALARMS

All of your sensor readings are securely archived and readily available from anywhere with the use of cloud-based storage. Data is never lost and storage capacity is only limited by you, the user. The Sentinel system can also generate an audit trail of all user data activities, edits or deletions.

An amazingly intuitive web-based control panel gives you the freedom to monitor environments from anywhere at anytime without the hassle of installing any extraneous software. You can securely and easily manage as many devices as you need to—all from a single interface.

If any of your monitored conditions exceed their set limits, you'll receive immediate alerts, not just when you need them, but also where you'll see them. You can configure your device to send notifications via a phone call, text, or email.

**Learn more & request a free online demo at**

[www.sensaphone.com/sentinels.php](http://www.sensaphone.com/sentinels.php)



# Sensaphone Sentinel

## Cloud-Based Monitoring for Digital & Analog Inputs



### Sentinel Details

- Secure, user-friendly online control panel provides a software-free, anytime, anywhere environment for managing your systems
- Store your sensor readings in the cloud to automatically protect against data loss and provide limitless information storage
- Receive alarm notifications through a supervised Internet connection
- Notifies an unlimited number of people by e-mail, text message or voice phone calls in the event of an alarm
- Up to twelve external sensors monitor temperature, humidity, water, third party sensors and more
- Manage multiple units, make programming changes and access status conditions using a simple, powerful web-based interface or mobile app



### ◀ Enclosure Options

The Sentinel can be purchased with or without a weatherproof enclosure. The enclosures are sealed and lockable making them suitable for harsh or corrosive environments. They are available with a clear or solid door.

### ◀ Cellular Service Provided by North America's Largest Cellular Networks

When an internet connection is not available, the Sentinel can be purchased prepackaged with a cellular modem in a weatherproof enclosure.



| Product Name  | Part Number               |
|---|---------------------------|
| Sensaphone Sentinel . . . . .                       | SCD-1200                  |
| Sensaphone Sentinel in NEMA Enclosure . . . . .     | SCD-1200-SD   SCD-1200-CD |
| Sensaphone Sentinel with Cellular Service . . . . . | SCD-1200-4G               |





### Monitoring for the Mobile Age

Gain access to your sensor readings from anywhere using a simple, powerful web-based interface and smartphone app. Alerts can be sent directly to your mobile device.



### Web-Based Management

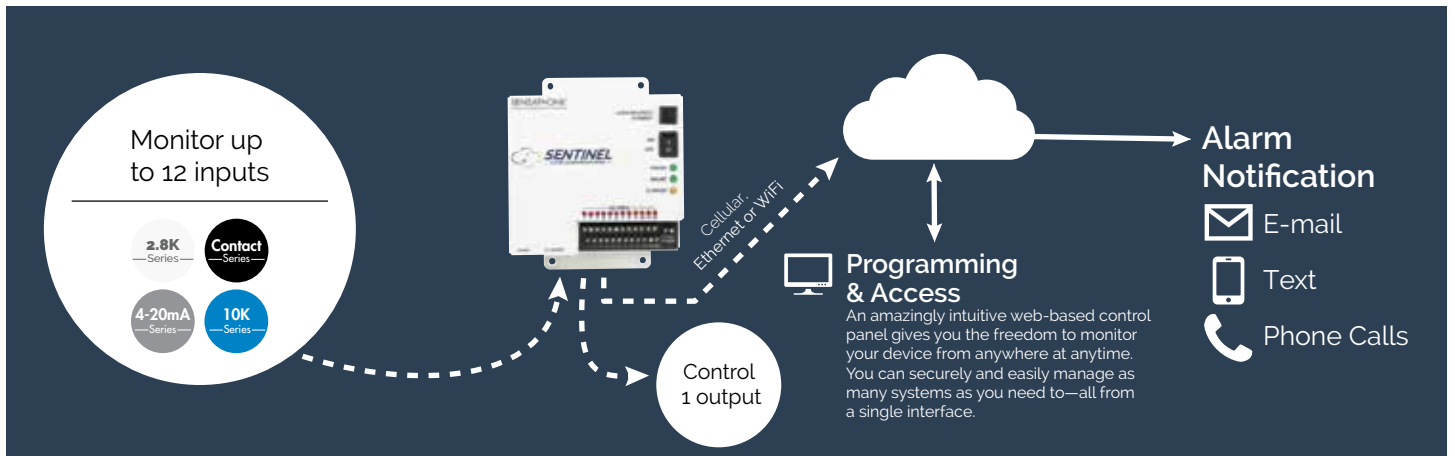
Manage multiple units from one powerful web-based interface. Make programming changes and access status conditions from any web-enabled device.



### Supervised Monitoring

The Sentinel monitors its own internet connection to make sure it is always live. If the connection to the servers is lost, users will receive an alarm.

## How it works



## Features & Specifications

**Communication Method:** Ethernet

**Number of Inputs:** 12 universal digital or analog

**Input Types:** Contact, 2.8K, 10K, 4-20mA

**Temperature Sensing Range:** -109° to 168°F | -85° to 76°C

**Output Relay:** One low voltage output

**Remote Access:**

Website or app to access status and programming

**Local Access:**

LEDs for Alarm Status, Power Status, and Server Link

**Alarm Notification:**

An unlimited number of e-mail, text or phone calls

**Data Logging:**

Unlimited samples securely stored on the Sentinel servers, programmable sampling interval - 1 min to 24 hrs

**Warranty:**

2 Years





### Sentinel Pro Details

- Poll up to 64 Modbus registers from other equipment such as a building automation system (BAS) or programmable logic controller (PLC)
- An additional twelve digital or analog sensors monitor temperature, humidity, water and more
- Manage multiple units, make programming changes and access status conditions using a simple, powerful web-based interface or mobile app
- Secure, user-friendly online control panel provides

a software-free, anytime, anywhere environment for managing your systems

- Store your sensor readings in the cloud to automatically protect against data loss and provide limitless information storage
- Receive alarm notifications through a supervised Internet connection
- Notifies an unlimited number of people by e-mail, text message or voice phone calls in the event of an alarm

### Cellular Service Provided by North America's Largest Cellular Networks

When an internet connection is not available, the Sentinel can be packaged with a cellular modem in a weatherproof enclosure. Cellular subscriptions are provided through Sensaphone so there is fumbling with SIM cards or overages.



### Multiple Weatherproof Options

The Sentinel can be purchased with or without a weatherproof enclosure. The enclosures are sealed and lockable making them suitable for harsh or corrosive environments. They are available with a clear or solid door.

#### Product Name

#### Part Number

|   |                         |
|---|-------------------------|
| Sensaphone Sentinel PRO . . . . .                       | SCD-PRO                 |
| Sensaphone Sentinel PRO in NEMA Enclosure . . . . .     | SCD-PRO-SD   SCD-PRO-CD |
| Sensaphone Sentinel PRO with Cellular Service . . . . . | SCD-PRO-4G              |





## Monitoring for the Mobile Age

Gain access to your sensor readings from anywhere using a simple, powerful web-based interface and smartphone app. Alerts can be sent directly to your mobile device.



## Cloud-Based Management

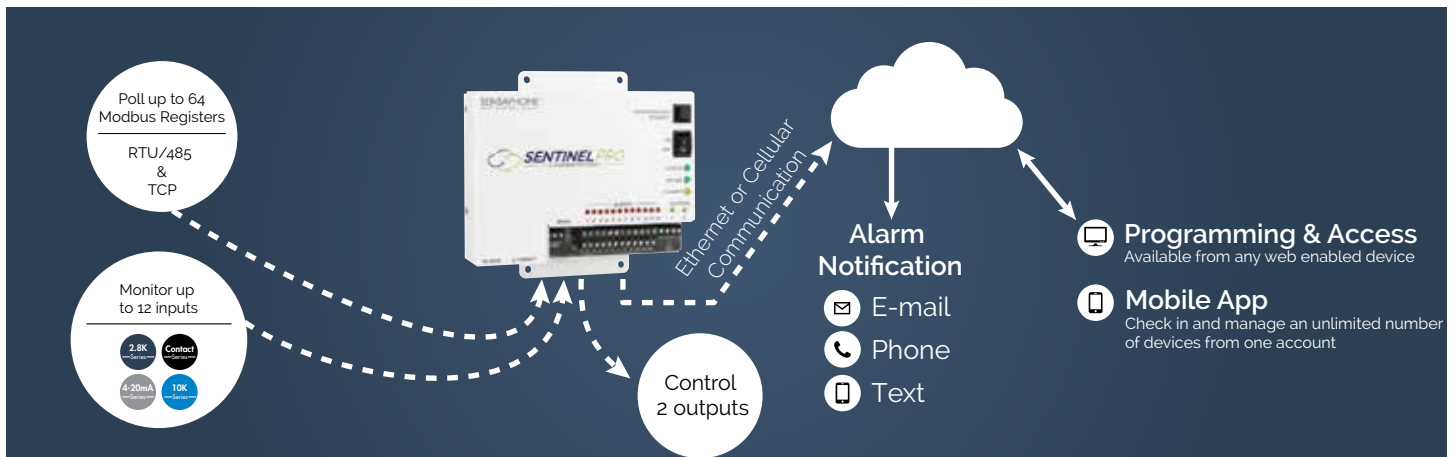
Manage multiple units from one powerful cloud-based interface. Make programming changes and access status conditions from any web-enabled device.



## Supervised Monitoring

The Sentinel Pro monitors its own internet connection to make sure it is always live. If the connection to the servers is lost, users will receive an alarm.

## How it works



## Features & Specifications

|                                   |   |                            |   |
|-----------------------------------|---|----------------------------|---|
| <b>Communication Method:</b>      | Ethernet  | <b>Remote Access:</b>      | Website or app to access status and programming   |
| <b>Number of Inputs:</b>          | 64 Modbus registers<br>12 universal digital or analog | <b>Local Access:</b>       | LEDs for Alarm Status, Power Status, and Server Link  |
| <b>Input Types:</b>               | Contact, 2.8K, 10K, 4-20mA                            | <b>Alarm Notification:</b> | An unlimited number of e-mail, text or phone calls  |
| <b>Temperature Sensing Range:</b> | -109° to 168°F   -85° to 76°C                         | <b>Data Logging:</b>       | Unlimited samples securely stored on the Sentinel Pro servers, programmable sampling interval - 1 min to 24 hrs |
| <b>Output Relay:</b>              | Two low voltage outputs                               | <b>Warranty:</b>           | 2 Years   |





### Stratus EMS Details

- Poll up to 64 Modbus registers from other equipment such as a building automation system (BAS)
- An additional twelve digital or analog sensors monitor temperature, humidity, water and more
- Manage multiple units, make programming changes and access status conditions using a simple, powerful web-based interface or mobile app
- Secure, user-friendly online control panel provides a software-free, anytime, anywhere environment for managing your systems
- Store your sensor readings in the cloud to automatically protect against data loss and provide limitless information storage
- Receive alarm notifications through a supervised Internet connection
- Notifies an unlimited number of people by e-mail, text message or voice phone calls in the event of an alarm



#### ◀ Add WiFi

The Sensaphone Wi-Fi adapter is a high-speed, long-range Wireless Bridge that is an ideal solution for adding Wi-Fi connectivity to the Stratus EMS. This is a perfect cost effective solution when faced with running communication cable.



#### ◀ Add Cellular

Can't be on the network? No problem! The Stratus EMS can be paired with a cellular kit to reach the cloud. The kit can be placed up to 300' from the Stratus EMS and is connected via an ethernet cable.

#### Product Name

#### Part Number

|   |              |
|---|--------------|
| Sensaphone Stratus EMS. . . . .                             | EMS-7600     |
| Sensaphone Stratus EMS LCD . . . . .                        | EMS-7600-LCD |
| Sensaphone LTE Cellular Modem with Battery Backup . . . . . | FGD-4GLTE    |





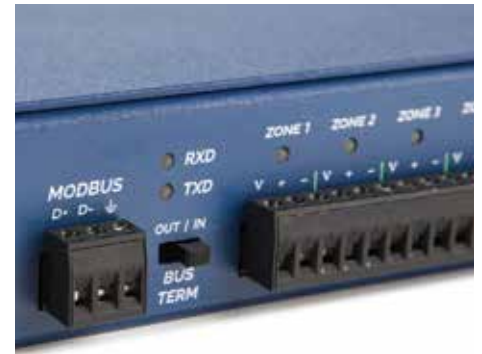
### Monitoring for the Mobile Age

Gain access to your sensor readings from anywhere using a simple, powerful web-based interface and smartphone app. Alerts can be sent directly to your mobile device.



### Web-Based Management

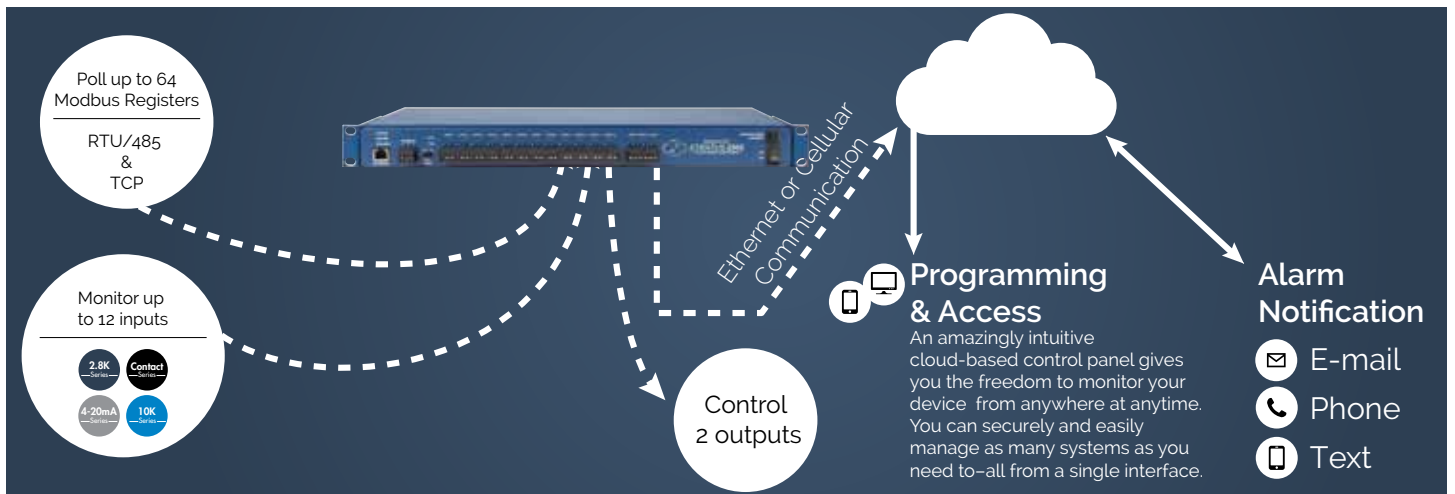
Manage multiple units from one powerful cloud-based interface. Make programming changes and access status conditions from any web-enabled device.



### Supervised Monitoring

The Stratus EMS monitors its own internet connection to make sure it is always live. If the connection to the servers is lost, users will receive an alarm.

## How it works



## Features & Specifications

|                                   |   |                            |  |
|-----------------------------------|---|----------------------------|--|
| <b>Communication Method:</b>      | Ethernet  | <b>Remote Access:</b>      | Website or app to access status and programming  |
| <b>Number of Inputs:</b>          | 64 Modbus registers<br>12 universal digital or analog | <b>Local Access:</b>       | LEDs for Alarm Status, Power Status, and Server Link   |
| <b>Input Types:</b>               | Contact, 2.8K, 10K, 4-20mA                            | <b>Alarm Notification:</b> | An unlimited number of e-mail, text or phone calls   |
| <b>Temperature Sensing Range:</b> | -109° to 168°F   -85° to 76°C                         | <b>Data Logging:</b>       | Unlimited samples securely stored on the cloud servers, programmable sampling interval - 1 min to 24 hrs |
| <b>Output Relay:</b>              | Two low voltage outputs                               | <b>Warranty:</b>           | 2 Years  |





### WEB600 Details

- Easy, cost-effective, web-based monitoring for any application
- Data-logging records up to 100,000 samples including data, date, and time
- Receive alarm notifications through a standard Internet connection
- Notifies up to thirty-two contacts by e-mail, text message or SNMP in the event of an alarm
- Up to six external sensors monitor temperature, humidity, water, and more
- Included relay output can switch local devices on/off either manually or based on alarm activity
- Temperature-sensing range of -109° to 168°F | -85° to 76°C
- Make programming changes and access status conditions online



### ◀ Battery Backup

The Sensaphone Battery Backup provides uninterrupted backup power for two hours when main power fails. The module includes a rechargeable battery that maintains a full charge.

### What's in the box

- ✓ WEB600
- ✓ AC Power Adapter
- ✓ 7' CAT5 Cable
- ✓ User's Manual and Documentation
- ✓ Screwdriver
- ✓ Mounting hardware

### Included Features

- ✓ Power failure monitoring
- ✓ No monthly fees

#### Product Name

#### Part Number

Sensaphone WEB600 . . . . .FGD-W600

Sensaphone WEB600 Battery Backup . . . . . FGD-W610-B





### Convenience & Simplicity

The Sensaphone WEB600 is the easiest and most cost effective web based product we offer. It's also the least expensive product that includes data logging.



### Low Temperature Monitoring

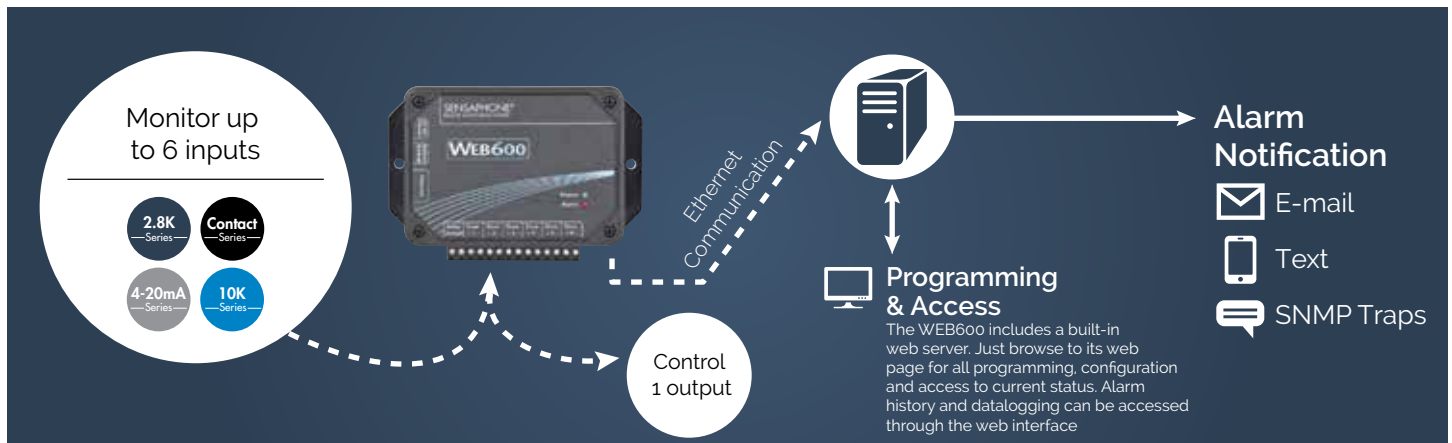
With the ability to monitor temperatures down to -85°C, the Sensaphone WEB600 is a great choice for many ultra low cold storage applications.



### 4-20mA Transducer Support

Read more than just simple on/off or open/closed type sensors. The WEB600 includes full analog capability so real world values can be monitored.

## How it works



## Features & Specifications

|                                   |   |                            |   |
|-----------------------------------|---|----------------------------|---|
| <b>Communication Method:</b>      | Ethernet  | <b>Alarm Notification:</b> | 32 alarm destinations - any combination of e-mail, text message, or SNMP traps<br>8 alarm escalation levels with comprehensive scheduling per input profile and alarm destination |
| <b>Number of Inputs:</b>          | 6   | <b>Data Logging:</b>       | 100,000 samples (include data, date and time)   |
| <b>Input Types:</b>               | Contact, 2.8K, 10K, 4-20mA  | <b>Physical:</b>           | 5.5 x 3.25 x 1.25"   140 x 83 x 32mm<br>.5lbs   .22kg   |
| <b>Temperature Sensing Range:</b> | -109° to 168°F   -85° to 76°C   | <b>Warranty:</b>           | 1 Year  |
| <b>Output Relay:</b>              | 1 Low voltage NO/NC relay output<br>Manual or automatic alarm switching |                            |   |
| <b>Remote Access:</b>             | Website to access status and programming                                |                            |   |
| <b>Local Access:</b>              | LEDs for Alarm Status, Power Status, and Ethernet link                  |                            |   |





### WSG30 Details

- An easy solution to web-based monitoring ideal for applications where running wires can be difficult
- Connect up to 30 wireless sensors
- Receive alarm notifications through a standard Ethernet connection
- Notifies up to 32 people by e-mail, text message, SNMP, or Modbus in the event of an alarm
- Up to 30 external wireless sensors monitor temperature, humidity, water, and more
- Data-logging records up to 67,000 samples; including data, date, and time
- Make programming changes and access status conditions online



### ◀ Add WiFi

Add the ability to have your WSG30 communicate over Wi-Fi. The Sensaphone Wi-Fi adapter is a high-speed, long-range outdoor Wireless Bridge that is an ideal solution for adding Wi-Fi connectivity to the WSG30. This is a perfect cost effective solution when faced with running communication cable or trenching long runs of wire.

### What's in the box

- ✓ WSG30
- ✓ AC Power Adapter
- ✓ 7' CAT5 Cable
- ✓ Mounting hardware
- ✓ User's Manual and Documentation

### Included Features

- ✓ Internal rechargeable battery-backup system provides 2 hours of continuous monitoring and alerts
- ✓ No monthly fees

#### Product Name

#### Part Number

|                                   |            |
|-----------------------------------|------------|
| Sensaphone WSG30 . . . . .        | FGD-WSG30  |
| Sensaphone WiFi Adapter . . . . . | FGD-0250-U |





## Wireless Sensors

The WSG30 works exclusively with its own wireless sensor line to monitor temperature, power failure, humidity, and water detection. In addition, a 4-20mA and dry contact interface are also available. Learn more p 53.



## Low Temperature Monitoring

The Sensaphone WSG30 is a great choice for many cold storage applications. Paired with a Sensaphone Ultra Low Temperature Sensor, the WSG30 has the ability to monitor temperatures down to -85°C.



## Web Interface

The WSG30's built-in web server provides programming, configuration, and access to current status. Even alarm history and data logging can be easily accessed.

## How it works



## Features & Specifications

|                                   |   |                            |  |
|-----------------------------------|---|----------------------------|--|
| <b>Communication Method:</b>      | Ethernet  | <b>Alarm Notification:</b> | 32 e-mail and/or text messages, SNMP trap, Modbus    |
| <b>Number of Inputs:</b>          | 30 wireless sensors   | <b>Data Logging:</b>       | 67,000 time stamped records                          |
| <b>Input Types:</b>               | WSG30 Wireless (Temperature, Humidity, Dry Contact, 4-20mA, Water Detection, Power Failure) | <b>Physical:</b>           | 7.36 x 5.1 x 2"   190 x 130 x 50mm<br>2.5lbs   1.3kg |
| <b>Temperature Sensing Range:</b> | -109° to 115°F   -85° to 57°C   | <b>Warranty:</b>           | 1 Year   |
| <b>Remote Access:</b>             | Website to access status and programming  |                            |  |
| <b>Local Access:</b>              | 4 line LCD display and keypad   |                            |  |





### SAT4D Details

- Ideal for remote facilities where no other communications are available
- No power supply required – runs on battery power for up to three years
- Receive voice alerts and email alarm notifications through direct satellite uplink
- Program as many as eight telephone numbers or six e-mail alert notifications
- Monitors up to four total dry-contact inputs
- Operating temperature range from -22° to 140°F | -30° to 60°C
- Alarm notifications are sent by satellite to a user accessible website
- Rugged, weatherproof, locking NEMA-4X enclosure protects from harsh environments and vandalism



### ◀ Mounting Options

To make mounting the SAT4D easier a pole mount kit is available. The kit includes an aluminum pole and mounting hardware that allows you to install the device anywhere, as long as you can drive the pole three feet into the ground.

### What's in the box

- ✓ SAT4D
- ✓ 4 AA 1.5V Lithium Battery
- ✓ 1 AA 3.6 Lithium Battery
- ✓ User's Manual and Documentation
- ✓ Screwdriver

### Included Features

- ✓ Replaceable batteries power unit for up to three years
- ✓ GPS locator technology lets you see exactly where mobile assets are located

#### Product Name

#### Part Number

|   |                |
|---|----------------|
| Sensaphone SAT4D . . . . .                | FGD-SAT4D      |
| Sensaphone SAT4D Pole Mount Kit . . . . . | FGD-SAT4D-PKIT |





### No Power Required

Since the SAT4D is self powered and requires no phone lines or cell signal, it can be placed in very remote locations that can be inconvenient or difficult to access.



### Web Interface

All communications from the SAT4D go through the SAT4D server. You can check the latest status, check previous alarm events, or make programming changes.



### Automatic Status Updates

The SAT4D will automatically send two status reports per day to the website. These 12 hour snapshots remain available on the SAT4D server for future reference.

## How it works



## Features & Specifications

**Communication Method:** Satellite

**Number of Inputs:** 4

**Input Types:** Contact

**Remote Access:** Website to access status and programming

**Alarm Notification:** 6 e-mails or text messages, 8 phone calls

**Physical:** 11.3 x 13.3 x 5.8" | 287 x 337 x 142mm  
7.4lbs | 3.3kg

**Standards:** UL913 Class I, Div I

**Power Supply:**

**Satellite transmitter battery:**

4 AA lithium batteries  
3 year battery life

**Input module battery:**

1 AA lithium battery  
7 year battery life

**Operating Conditions:**

-22° to 140°F | -30° to 60°C  
-40° to 176°F | -40° to 80°C with battery life impact

**Warranty:**

1 Year





### 400 & 800 Details

- Simple, convenient, cost-effective remote monitoring for small businesses and property managers
- Record custom voice alerts and receive alarm messages in your own voice
- Receive voice alerts and alarm notifications over standard telephone lines
- Notifies up to four (400) or eight (800) people by voice phone call in the event of an alarm
- Up to four (400) or eight (800) external sensors monitor temperature, humidity, water, and more
- Included relay output can switch local devices on/off based on alarm activity



### ◀ Listen in and alarm on high sound levels

When calling for a Status Report, the built in microphone permits listening to onsite sounds for a programmed time interval. The microphone can also be used to monitor high sound levels produced near the installation site. The sensitivity of the microphone is configurable and will detect a continuous as well as a pulsating alarm.

### What's in the box

- ✓ 400 | 800
- ✓ AC Power Adapter
- ✓ Telephone Cable
- ✓ User's Manual and Documentation
- ✓ 2.8K Temperature Probe
- ✓ Screwdriver
- ✓ Mounting hardware

### Included Features

- ✓ Battery-backup system provides 24 hours of continuous monitoring and alerts (6 C batteries required)
- ✓ Microphone for sound level monitoring
- ✓ No monthly fees

#### Product Name

#### Part Number

|                          |          |
|--------------------------|----------|
| Sensaphone 400 . . . . . | FGD-0400 |
| Sensaphone 800 . . . . . | FGD-0800 |





### Convenience & Simplicity

The Sensaphone 400 is the easiest and most cost effective product we offer. And it offers the convenience of voice telephone calls for alarms and programming.



### No Monthly Fee

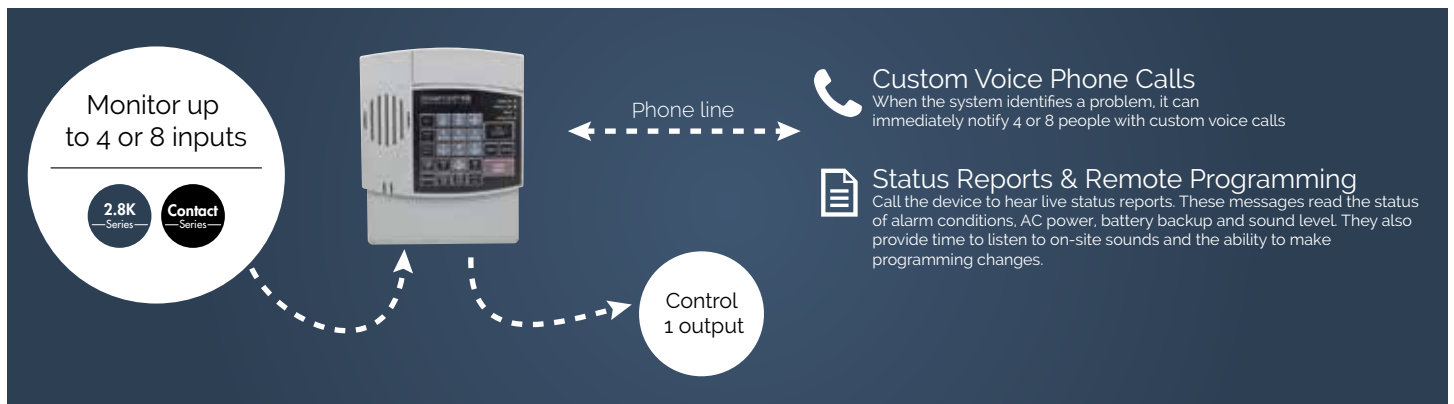
The Sensaphone 400 and 800 are the best way to monitor a vacation home with no monthly fees. Monitor everything from climate conditions to security and more.



### Remote Thermostat Control

Use a dual setback thermostat in conjunction with the 400 or 800's output relay to control the temperature between two set points.

## How it works



## Features & Specifications

|                                   |   |                            |  |
|-----------------------------------|---|----------------------------|--|
| <b>Communication Method:</b>      | Phone Line  | <b>Local Access:</b>       | Keypad and speaker for local programming, easy voice prompted programming, keypad lock, and LEDs |
| <b>Number of Inputs:</b>          | 4 / 8   | <b>Alarm Notification:</b> | 4 or 8 custom voice phone calls  |
| <b>Input Types:</b>               | Contact, 2.8K   | <b>Physical:</b>           | 2.1 x 7.8 x 8.8"   53 x 198 x 223mm<br>2lbs   .9kg   |
| <b>Temperature Sensing Range:</b> | -20° to 150°F   -30° to 65°C  | <b>Warranty:</b>           | 1 Year   |
| <b>Output Relay:</b>              | 1 Low voltage NO/NC relay output<br>Manual or automatic alarm switching               |                            |  |
| <b>Remote Access:</b>             | Call in to check status and make programming changes, microphone for listen in status |                            |  |





### 1400 & 1800 Details

- Simple, convenient, cost-effective remote monitoring ideal for greenhouse and agriculture applications
- Rugged, weatherproof NEMA-4X enclosures protect from harsh environments
- Receive voice alert alarm notifications over standard telephone lines
- Notifies up to eight people by voice phone call in the event of an alarm
- Up to four (1400) or eight (1800) external sensors monitor temperature, humidity, water and more
- Included relay output can switch local devices on/off based on alarm activity
- Record custom voice alerts and receive alarm messages in your own voice



### ◀ Enclosure Options

The Sensaphone 1400 and 1800 comes in sealed, weatherproof, lockable enclosures making them suitable for harsh or corrosive environments. They are available with a clear door (as shown) or a solid door. Please specify when ordering.

### What's in the box

- ✓ 1400 | 1800
- ✓ AC Power Adapter
- ✓ Telephone Cable
- ✓ User's Manual
- ✓ 2.8K Temperature Probe
- ✓ 14 AWG Grounding Cable
- ✓ Mounting hardware
- ✓ Screwdriver

### Included Features

- ✓ Internal battery-backup system provides 16 hours of continuous monitoring and alerts
- ✓ Microphone for on-site listen-in (w/optional external mic)

#### Product Name

#### Part Number

|                          |          |
|--------------------------|----------|
| Sensaphone 1400. . . . . | FGD-1400 |
| Sensaphone 1800. . . . . | FGD-1800 |





### Rugged & Weatherproof

The Sensaphone 1400 and 1800 are suitable for harsh, corrosive environments such as greenhouses or agricultural applications.



### Low Temperature Monitoring

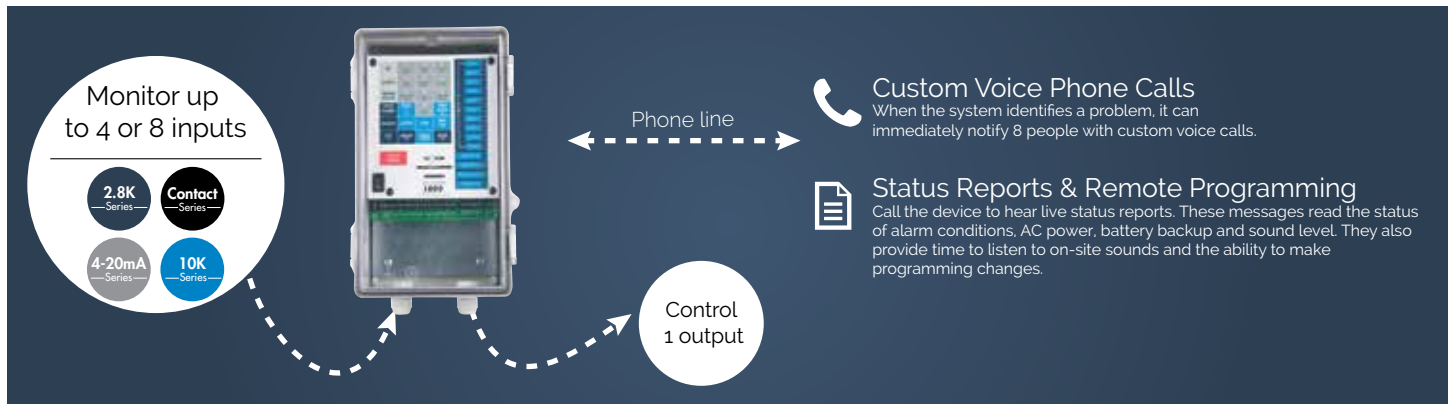
With the ability to monitor temperatures down to -85°C, the Sensaphone 1400 is a great choice for many cold storage applications.



### Support 4-20mA Transducers

Read more than just simple on/off or open/closed type sensors. The 1400 and 1800 include full analog capability so real world values can be monitored.

## How it works



## Features & Specifications

|                                   |   |                            |   |
|-----------------------------------|---|----------------------------|---|
| <b>Communication Method:</b>      | Phone Line  | <b>Local Access:</b>       | Keypad and speaker for local programming, easy voice prompted programming, keypad lock, recent alarm history playback, and LEDs |
| <b>Number of Inputs:</b>          | 4 / 8   | <b>Alarm Notification:</b> | 4 or 8 custom voice phone calls   |
| <b>Input Types:</b>               | Contact, 2.8K, 10K, 4-20mA  | <b>Physical:</b>           | 1400: 12.1 x 7.3 x 4.5"   53 x 198 x 223mm<br>5lbs   2.2kg<br>1800: 12.1 x 8 x 5.5"   53 x 203 x 140<br>8lbs   3.6kg            |
| <b>Temperature Sensing Range:</b> | -109° to 168°F   -85° to 76°C   | <b>Warranty:</b>           | 1400 - 2 Years   1800 - 3 Years   |
| <b>Output Relay:</b>              | One universal output relay<br>Manual or automatic alarm switching                     |                            |   |
| <b>Remote Access:</b>             | Call in to check status and make programming changes, microphone for listen in status |                            |   |



# Sensaphone Express II

## Phone Notification with Future Expansion



### Express II Details

- Ideal for monitoring facilities with expanding needs
- Allows for future expansion with up to 40 total inputs and up to 16 output zones
- Receive voice alerts and alarm notifications over standard telephone lines
- Notifies up to 48 people by voice phone call in the event of an alarm
- Increase monitoring capability with easy-to-install expansion input and output cards
- Included relay output can switch local devices on/off based on alarm activity
- Record custom voice alerts and receive alarm messages in your own voice
- Rugged, weatherproof NEMA-4X enclosure protects from harsh environments



### ◀ Expansion Options

The Sensaphone Express II comes standard with eight inputs and one relay output. Easy to install expansion cards increase monitoring capacity by an additional 32 inputs (on four cards), 16 outputs (on two cards).

### What's in the box

- ✓ Express II
- ✓ AC Power Adapter
- ✓ Mounting hardware
- ✓ User's Manual and Documentation
- ✓ Screwdriver
- ✓ Telephone Cable

### Included Features

- ✓ Internal rechargeable battery-backup system provides 12 hours of continuous monitoring and alerts
- ✓ Microphone for sound level monitoring
- ✓ No monthly fees

#### Product Name

Sensaphone Express II . . . . . FGD-6700

#### Part Number





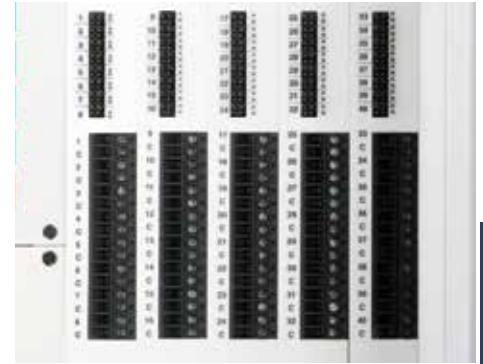
### Rugged & Weatherproof

The Sensaphone Express II comes in a lockable, NEMA 4X enclosure that is suitable for harsh, corrosive environments such as greenhouses or agricultural applications.



### Low Temperature Monitoring

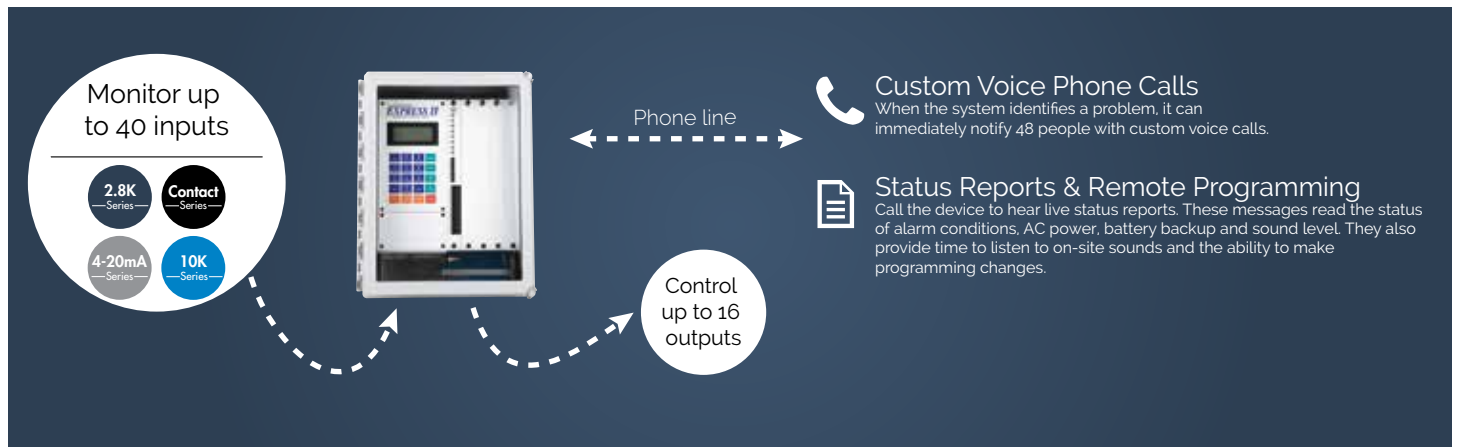
With the ability to monitor temperatures down to  $-65^{\circ}\text{C}$ , the Sensaphone Express II is a great choice for many cold storage applications.



### 4-20mA Transducer Support

Read more than just simple on/off or open/closed type sensors. The Express II includes full analog capability so real world values can be monitored.

## How it works



## Features & Specifications

|                                   |   |                            |  |
|-----------------------------------|---|----------------------------|--|
| <b>Communication Method:</b>      | Phone Line  | <b>Local Access:</b>       | Keypad for viewing status, four line LCD display, LEDs |
| <b>Number of Inputs:</b>          | 8 standard, expandable to 40  | <b>Alarm Notification:</b> | 48 custom voice phone calls                            |
| <b>Input Types:</b>               | Contact, 2.8K, 10K, 4-20mA  | <b>Physical:</b>           | 14.5 x 13 x 8.3"   368 x 330 x 210mm<br>18lbs   8.1kg  |
| <b>Temperature Sensing Range:</b> | $-85^{\circ}$ to $300^{\circ}\text{F}$   $-65^{\circ}$ to $149^{\circ}\text{C}$ | <b>Warranty:</b>           | 1 Year   |
| <b>Output Relay:</b>              | One output relay standard, expandable to 17 total                               |                            |  |
| <b>Remote Access:</b>             | Call in to check status and make programming changes                            |                            |  |



## Sensaphone Sensors & Accessories



### How to choose a compatible sensor

The Sensaphone product line includes many options for sensors and accessories. Not all sensors work with all Sensaphone units, but pairing a sensor with your Sensaphone has never been easier. Simply identify the colored circle icons that work with your product in the previous pages. Then, when selecting a sensor make sure it displays the same icon. It's that easy.



### Easy to use sensors

All of the hard wired sensors in this section are connected via the Sensaphone's terminal strip. Simply insert the sensor's wire into the terminal block and tighten it down. We even include the screwdriver.



### Wireless Sensors

The WSG30 communicates with it's own line of wireless sensors. These sensors can be placed in areas where running wires to a traditional hard wired sensor are inconvenient. Setup of the wireless sensors is simple and easy.  
Sensaphone WSG30 Wireless Sensors . . . . . pg 53



### Need more help?

Give us a call and our friendly sales team will work with you to find a solution that's customized to your needs. If you already have a Sensaphone, we offer free technical support.

## Calibrated Temperature Sensors

The monitoring of temperature is essential for a whole host of industries and can potentially save millions of dollars or years of research in the event of equipment failure. But how can you trust that the probes you are using to monitor those valuable assets are indicating the correct

In-house NIST calibrated probes provide a number of benefits for our customers. Since Sensaphone has better control of inventory for probes calibrated in-house, we can provide a more up-to-date certificate. Customers can expect the calibration to be performed within the month

## How can you trust that the probes you are using to monitor those valuable assets are indicating the correct temperature?

temperature? A NIST traceable certificate gives the facilitator of a lab or process an indicator of how close the temperature probe reading is to the internationally recognized standard maintained by the National Institute of Standards and Technology, or NIST for short. All equipment used in generating a NIST traceable certificate are also NIST traceable, ensuring that the measurements can be traced back to this single reference.

of purchase. All calibration data is recorded; if a customer needs a copy of their certificate, an electronic copy of the certificate can be quickly e-mailed to them. Furthermore, the customer will receive certificates that are uniform and will contain the same amount of data displayed in the same manner every time. Paper certificates are shipped with each NIST certified sensor, stating the serial number, date of calibration, and the calibration data.

### 2.8K Series Temperature Sensor Recalibrations

Typically most fields of practice require that the sensors be re-calibrated on an annual basis; Sensaphone can satisfy this requirement in a manner that results in zero downtime. Please contact Sensaphone for details regarding our re-calibration policy.

### 2.8K Series Custom Temperature Sensor Calibrations

A Sensaphone temperature sensor with NIST calibration consists of three temperature points: -15C, 0C, and 25C. Customers who wish to have the probes calibrated at a particular temperature point can also specify up to four temperature points per calibration. Any temperature between -30C (-22F) to 55C (131F) can be specified for a custom calibration.



## Temperature Display Provides Quick View of Sensor Data

The Temperature Display is ideal for any location where onsite staff need a quick, convenient visual reading of the sensor data, saving them the time of checking the monitoring system's data logs. The device can be used with all Sensaphone 2.8k type temperature sensors. It logs and displays the highest and lowest temperatures; provides an audible alarm for out-of-range temperatures; and offers a relay output that can be programmed to turn on a light or siren for additional onsite alarm notifications.

When the temperature falls out of the programmed high and low limits, the display triggers an audible alarm, immediately alerting onsite staff of a potential problem. This alarm is in addition to the alerts that the Sensaphone monitoring system sends to designated personnel when temperatures fall out of range.

To help healthcare providers comply with regulations for vaccine cold storage, Sensaphone offers a two versions that meet VFC requirements.



2.8K Series

### Temperature Sensor Display



The Temperature Display can be used with all Sensaphone 2.8k type temperature sensors to provide an at-a-glance reading of the current temperature as well as the minimum and maximum temperatures. The display is ideal for any location where onsite staff need a quick, convenient visual reading of the sensor, saving them the time of

checking the monitoring system's data. The audible alarm alerts onsite staff of any alarms. The display is programmed by using the buttons on the front of the device and comes with a battery that powers it for up to one year. It can also use an optional external power supply. Temperature sensor not included.

2.8K Type Temperature Sensor Display . . . . . FGD-0120

2.8K Series

### VFC Temperature Sensor with Display



The VFC Refrigerator Temperature Display is designed to work with a Sensaphone and comply with VFC requirements. These sensors include the display, a NIST calibrated buffered temperature sensor and plug in power supply. Choose between a glycol or glass bead buffer. The display's battery will act as a backup should the main power fail. The display features the current temperature in addition to the minimum and maximum temperatures. It is programmed by using the buttons on the front of the device. An audible alarm alerts onsite staff to any temperature alarms.

VFC Temp Sensor Display with Glycol. . . . . FGD-VFC-GLY

VFC Temp Sensor Display with Glass Beads. . . . . FGD-VFC-GBV



# Sensaphone Temperature Sensors

2.8K Series

## 2.8K Room Temperature Sensor



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -20° to 176°F   -28° to 80°C      |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

This sensor will measure and report the temperature -20° to 176°F (-28° to 80°C) back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. It is suitable for use in wet, dirty environments. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Type Weatherproof Temperature Sensor . . . . .FGD-0101

2.8K Type Weatherproof Temperature Sensor & NIST. . . . .FGD-0101 -NIST

2.8K Series

## 2.8K Temperature Sensor in Glass Bead Vial



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -20° to 176°F   -28° to 80°C      |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

This sensor will measure and report the temperature from -20° to 176°F (-28° to 80°C) back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. The glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. The beads slow the response time allowing normal daily operations without having an alarm. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Type Temperature Sensor in Glass Bead Vial . . . . .FGD-0107

2.8K Type Temperature Sensor in Glass Bead Vial & NIST . . . . .FGD-0107-NIST

2.8K Series

## 2.8K Temperature Sensor in Glycol Bottle



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -20° to 176°F   -28° to 80°C      |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

This sensor will measure and report the temperature from -20° to 176°F (-28° to 80°C) back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. The glycol filled bottle will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. The glycol slows the response time allowing normal daily operations without having an alarm. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Type Temperature Sensor in Glycol Bottle. . . . .FGD-0127

2.8K Type Temperature Sensor in Glycol Bottle & NIST . . . . .FGD-0127-NIST



## 2.8K Ultra Low Temperature Sensor



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -121° to 176°F   -85° to 140°C    |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

When monitored temperatures dip below -20°F all other temperature sensors simply won't suffice. This sensor offers reliable temperature monitoring from -121° to 176°F (-85°C to 140°C). It's a perfect fit for many applications where traditional temperature sensors have failed. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Ultra Low Temperature Sensor . . . . .FGD-0101-TEF

2.8K Ultra Low Temperature Sensor & NIST . . . . .FGD-0101-TEF-NIST

## 2.8K Ultra Low Temperature Sensor in Glass Bead Vial



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -58° to 176°F   -50° to 80°C      |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

When monitored temperatures dip below -20°F all other temperature sensors simply won't suffice. This sensor offers reliable temperature monitoring from -58° to 176°F (-50° to 80°C). The glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. It's a perfect fit for many applications where traditional temperature sensors have failed. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Ultra Low Temperature Sensor in Glass Bead Vial . . . . .FGD-0107-TEF

2.8K Ultra Low Temperature Sensor & NIST in Glass Bead Vial . . . . .FGD-0107-TEF-NIST

## 2.8K Ultra Low Temperature Sensor in Glycol Bottle



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -58° to 176°F   -50° to 80°C      |
| Accuracy                 | ± 1°F   ±.56°C                    |
| Sensor Series            | 2.8K Series                       |
| Notes                    | Available with NIST Certification |

When monitored temperatures dip below -20°F all other temperature sensors simply won't suffice. This sensor offers reliable temperature monitoring from -58° to 176°F (-50° to 80°C). The glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. It's a perfect fit for many applications where traditional temperature sensors have failed. Includes 12' | 3.6m of cable. Available with NIST Certification.

2.8K Type Ultra Low Temperature Sensor in Glycol Bottle . . . . .FGD-0127-TEF

2.8K Type Ultra Low Temperature Sensor in Glycol Bottle & NIST . . . . .FGD-0127-TEFNIST



# Sensaphone Temperature Sensors

2.8K  
Series

## 2.8K Room Temperature Sensor



|                          |                                       |
|--------------------------|---------------------------------------|
| Sensor Temperature Range | 0° to 176°F   -17° to 49°C            |
| Accuracy                 | ± 1°F   ±.56°C                        |
| Sensor Series            | 2.8K Series                           |
| Notes                    | For use in clean, indoor environments |

This sensor will measure and report the temperature from 0° to 120°F (-17° to 49°C) back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. This sensor is recommended to be located in clean, dry environment. For outdoor use model FGD-0101 is recommended.

2.8K Type Room Temperature Sensor . . . . .FGD-0100

Contact  
Series

## Temp Alert Temperature Switch



|                          |   |
|--------------------------|---|
| Sensor Temperature Range | -30° to 130°F   -34° to 54°C                  |
| Accuracy                 | ± 3°F   ±1.7°C                                |
| Sensor Series            | 2.8K Series                                   |
| Notes                    | Provides local display of temperature reading |

The Temp Alert Temperature Switch can be used with all Sensaphone models to monitor air temperature from -30° to 130°F. Simply set the acceptable temperature limits for your application and when the temperature exceeds that setting, the sensor triggers an alarm.

Contact Type Temp Alert Temperature Switch . . . . .FGD-0022

10K  
Series

## Indoor Decorator Zone Temperature Sensor



|                          |                              |
|--------------------------|------------------------------|
| Sensor Temperature Range | -58° to 176°F   -50° to 80°C |
| Accuracy                 | ± 1°F   ±.56°C               |
| Sensor Series            | 2.8K Series                  |
| Notes                    | Includes 8' of cable         |

The 10K indoor decorator zone temperature sensor offers precision room temperature sensing in an attractive wall-mounted enclosure. Accurate to 0.36°F (0.2°C) with a sensing range of 35° to 140°F. The indoor decorator comes in a beige plastic enclosure with a tan metal face plate. The sensor is designed to be wall-mounted indoors where appearance is important. Includes 8' | 2.4m of cable.

10K Type Indoor Decorator Zone Temperature Sensor . . . . .FGD-0103



10K  
Series

## 10K Weatherproof Temperature Sensor



|                          |   |
|--------------------------|---|
| Sensor Temperature Range | -20° to 176°F   -28° to 80°C                |
| Accuracy                 | ± 1°F   ±.56°C                              |
| Sensor Series            | 2.8K Series                                 |
| Notes                    | Suitable for use in wet, dirty environments |

This sensor enables monitoring temperatures at a location away from a Sensaphone unit. It will measure and report the exact temperature from -20° to 176°F (-28° to 80°C) back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. It may be mounted anywhere air temperatures need to be measured and is suitable for use in wet, dirty environments. Includes 12' | 3.6m of cable.

10K Type Weatherproof Temperature Sensor . . . . .FGD-0102

10K  
Series

## Outdoor Air Temperature Sensor



|                          |   |
|--------------------------|---|
| Sensor Temperature Range | -30° to 140°F   -34° to 60°C                  |
| Accuracy                 | ± .36°F   ±.2°C                               |
| Sensor Series            | 2.8K Series                                   |
| Notes                    | Provides local display of temperature reading |

The 10K Outdoor Air Weatherproof Temperature sensor is a sensitive temperature element in a stainless steel tube sheathe. It is mounted inside a ventilated, treated, weather-resistant PVC shield to minimize radiant energy effects and mounted on a weatherproof outlet box for easy outdoor installation. Accurate to ± 0.36°F (0.2°C) with a sensing range of -30° to 140°F. 8' of 24AWG wire included.

10K Type Outdoor Air Temperature Sensor . . . . .FGD-0104

10K  
Series

## Immersion Temperature Sensor



|                          |                              |
|--------------------------|------------------------------|
| Sensor Temperature Range | -10° to 230°F   -34° to 60°C |
| Accuracy                 | ± .36°F   ±.2°C              |
| Sensor Series            | 2.8K Series                  |
| Dimensions               | Thermowell: 5.2"   130mm     |

This sensor measures the temperature of fluids inside a pipe from 40° to 221°F (-40° to 105°F). It's constructed of brass WEL-B thermowell (which screws into a customer-supplied 0.5" NPT saddle or Thredolet® fitting in a pipe). It fits into a thermowell via a brass 0.125" NPT fitting. Includes 8' | 2.4m of cable.

10K Type Immersion Temperature Sensor . . . . .FGD-0105



# Sensaphone Temperature and Humidity Sensors



## Modbus Type Temperature and Humidity Combination Sensor



|                          |                             |
|--------------------------|-----------------------------|
| Sensor Temperature Range | -32° to 122°F   -0° to 50°C |
| Accuracy                 | ± .4°F   ±.2°C              |
| Humidity Range           | 0-100% RH, non-condensing   |
| Humidity Accuracy        | ±2% RH                      |

This combination temperature and humidity sensor is used exclusively with the Sentinel Pro and Stratus EMS models to measure the temperature and humidity in a clean, dry environment. The Sensaphone will trigger an alarm when the temperature or humidity falls outside of the programmed high or low limit. It features a back-lit LCD and user menu for easy installation. The sensor will measure temperatures from -32° to 122°F (-0° to 50°C), and humidity from 0-100% RH, non-condensing.

Modbus Type Temperature and Humidity Sensor . . . . . FGD-0110



## RTD Probe with 4-20mA Transmitter



|                          |   |
|--------------------------|---|
| Sensor Temperature Range | -328° to 399°F   -200° and 204°C                      |
| RTD Element              | PT100 - 385ALPHA - CLASS - B                          |
| Sensor Series            | 4-20mA  |
| Notes                    | Element Tolerance to IEC 60751 edition 2.0, par 5.1.2 |

The RTD probe with 4-20mA transmitter can be used to measure the temperature in extreme environments. The standard transmitter is calibrated to operate over the range -200° to 35°C, but can be customized at time of order to operate over any range between -200° and 204°C. The sensor will need a 24VDC power supply to operate (Part # FGD-0070). Choose between 14" or 1" probe length.

1" RTD Probe with 4-20mA Transmitter . . . . . FGD-0240  
 14" RTD Probe with 4-20mA Transmitter . . . . . FGD-0240-14



## Humidistat Humidity Switch



|                             |                                  |
|-----------------------------|----------------------------------|
| Operating Temperature Range | 32° to 95°F   -0° to 35°C        |
| Humidity                    | 10 to 80%                        |
| Sensor Series               | Contact Series                   |
| Dimensions                  | 4.5 x 3 x 1.7"   114 x 76 x 43mm |

The Humidistat can be used to detect a high or low humidity level. The device will cause your Sensaphone to activate an alarm when the humidity level reaches a set threshold. With a range of 10% to 80% RH level, the sensor causes an alarm when the humidity exceeds or falls below the set limit.

Contact Type Humidistat Humidity Switch . . . . . FGD-0027



# Sensaphone Temperature and Humidity Sensors

## 4-20mA Series Humidity Sensor



|                             |  |
|-----------------------------|--|
| Operating Temperature Range | -10° to 160°F   -23° to 71°C             |
| Humidity Range              | 0 to 95%                                 |
| Dimensions                  | 2.8 x 4.5 x 1.2"   70 x 114 x 29mm       |
| Notes                       | Requires a 24VDC power supply (FGD-0070) |

These humidity sensors can be used with any Sensaphone models that accept a 4-20mA signal to detect humidity levels. The device will cause your Sensaphone to activate an alarm when the humidity level reaches a set threshold. A 24V DC power supply (FGD-0070) is required.

4-20mA Type Humidity Sensor . . . . . FGD-0052

## 4-20mA Series Outdoor Humidity Sensor



|                             |  |
|-----------------------------|--|
| Operating Temperature Range | -40° to 158°F   -40° to 70°C             |
| Humidity Range              | 0 to 100%                                |
| Dimensions                  | 5.7 x 4.95 x 2.5"   145 x 125.4 x 63.5mm |
| Notes                       | Requires a 24VDC power supply (FGD-0070) |

This humidity transmitter can be used with Sensaphone models that accept a 4-20mA signal to detect humidity levels. The device will cause your Sensaphone to activate an alarm when the humidity level reaches a set threshold. With a range of 0% to 100% RH level, the sensor causes an alarm when the humidity exceeds or falls below the set limit. The sensor is mounted in a weatherproof enclosure to allow for mounting in harsh locations. Also available to monitor humidity in ductwork.

4-20mA Outdoor Humidity Sensor . . . . . FGD-0052-OD

4-20mA Duct Mount Humidity Sensor . . . . . FGD-0052-DUCT

## 4-20mA Series Modbus Series Temperature, Humidity and CO2 Combination Sensor



|                              |  |
|------------------------------|--|
| Temperature Monitoring Range | -32° to 122°F   -0° to 50°C (± .4°F   ±.2°C) |
| Humidity Monitoring Range    | 0 to 100% (± 2%RH)                           |
| CO2 Monitoring Range         | 0 to 2,000 PPM (± 50PPM + 3% of reading)     |
| Dimensionss                  | 5.1 x 5.1 x 9"   130 x 130 x 75mm            |

The Sensaphone Combination Temperature, Humidity and CO2 Sensor will measure and provide real time values to any Sensaphone that accepts a 4-20mA or Modbus signal. When any of the monitored conditions fall outside of the Sensaphone's programmed high or low limits, the user will receive an alarm which displays or reads the current value. The sensor utilizes a highly accurate and reliable dual-channel, non-dispersive infrared (NDIR) sensor to monitor CO2, a precision thermistor to monitor temperature and a thermoset polymer based capacitance sensor to measure humidity levels.

4-20mA Type Temperature, Humidity, and CO2 Sensor. . . . . FGD-0111

Modbus Type Temperature, Humidity and CO2 Sensor. . . . . FGD-0111-MB



# Sensaphone Water Detection & Dew Point Sensors

## Contact Series Spot Water Detection Sensor



|               |                                   |
|---------------|-----------------------------------|
| Connection    | Hardwired                         |
| Housing       | Black Plastic                     |
| Sensor Series | Contact Series                    |
| Dimensions    | 2.2 x 1.3 x 3.6"   57 x 28 x 92mm |

This water detection sensor can be used with all Sensaphone models to detect the presence of water on a horizontal surface. When water is detected, it will send the Sensaphone into an alarm state. It is powered by internal batteries which last for three to five years. When the batteries start to run down, the sensor will automatically cause an alarm when no water is present. Multiple sensors can be wired in series to a single input. Includes 25' | 7.6m of cable.

Contact Type Spot Water Detection Sensor . . . . .FGD-0013

## Contact Series Zone Water Detection Sensor



|               |                                   |
|---------------|-----------------------------------|
| Connection    | Hardwired                         |
| Housing       | Black Plastic                     |
| Sensor Series | Contact Series                    |
| Dimensions    | 5.5 x 3.3 x 14"   140 x 83 x 33mm |

The Sensaphone Zone Water Detector is for use in detecting the presence of water on a floor or in a false ceiling. It comes with 10' of WaterRope capable of covering a larger area than the FGD-0013 water sensor. Up to ten Water Ropes can be cascaded from a single sensor for even greater coverage. Works with all Sensaphone products and operates on two AA batteries.

Contact Type Zone Water Detection Sensor . . . . . FGD-0056

Water Rope Extension for Zone Water Detection Sensor . . . . . FGD-0063

## 4-20mA Series Dew Point Sensor



|                             |  |
|-----------------------------|--|
| Operating Temperature Range | -30° to 50°C   -22° to 122°F             |
| Operating Humidity Range    | 0 to 95 %RH non-condensing               |
| Sensor Series               | 2.8K Series                              |
| Notes                       | Requires a 24VDC power supply (FGD-0070) |

The Sensaphone Dew Point Sensor will measure and provide real time dew point values to any Sensaphone that accepts a 4-20mA signal. When the dew point level falls outside of the Sensaphone's programmed high or low limit, the user will receive an alarm which displays or reads the current dew point value. The sensor comes enclosed in a weatherproof enclosure that is suitable for use in outdoor environments. A 24V DC power supply is required to power the sensor.

4-20mA Type Dew Point Sensor. . . . . FGD-0059



## Float Level Switch



|                             |                             |
|-----------------------------|-----------------------------|
| Operating Temperature Range | -10° to 80°F   -23° to 26°C |
| Housing                     | Black Plastic               |
| Sensor Series               | Contact Series              |
| Dimensions                  | 3.5 x 1.5"   89 x 38mm      |

The FGD-0222 float switch is a plastic side mounted float switch. It is cost effective for level control applications in small tanks where it is more convenient to install a level switch through the sidewall of the tank. This style float switch can be rotated for Normally Open or Normally Closed operation. Combine two switches at different levels for high and low level or pump control or alarming.

Contact Type Float Level Switch . . . . . FGD-0222

## Soil Moisture Sensor



|               |                                   |
|---------------|-----------------------------------|
| Connection    | Hardwired                         |
| Housing       | Black Plastic                     |
| Sensor Series | 4-20 Series                       |
| Dimensions    | 5.5 x 3.3 x 14"   140 x 83 x 33mm |

The soil moisture sensor determines volumetric water content (VWC) by measuring the dielectric constant of the media using capacitance/frequency domain technology. It minimizes salinity and textural effects, making it accurate in almost any soil or soil-less media. Factory calibrations are included for mineral soils, potting soils, and rockwool. The sensor will need a 24VDC power supply to operate (Part # FGD-0070).

4-20mA Type Soil Moisture Sensor . . . . . FGD-0090

## Thermal Flow Meter with Digital Display



|               |                                    |
|---------------|------------------------------------|
| Media         | water, glycol solutions, air, oils |
| Probe Length  | 1" or 4"                           |
| Sensor Series | 4-20 Series                        |
| Fitting       | 1/2" NPT                           |

The Sensaphone Dual Flow and Temperature Sensor will measure and provide real time flow rates to any Sensaphone that accepts a 4-20mA signal. When the flow rate falls outside of the Sensaphone's programmed high or low limit, the user will receive an alarm which displays or reads the current flow rate. The sensor can be used to detect and measure the flow of oil, water, glycol and air in internal pipe diameters up to 10". The sensor will need a 24VDC power supply to operate (Part # FGD-0070).

4-20mA Type 1" Dual Flow & Temperature Sensor . . . . . FGD-0223-1

4-20mA Type 4" Dual Flow & Temperature Sensor . . . . . FGD-0223-4



# Sensaphone Carbon Dioxide Sensors

## 4-20mA Series Room Carbon Dioxide (CO<sub>2</sub>) Sensor



|                       |                                    |
|-----------------------|------------------------------------|
| Carbon Monoxide Range | 0 to 2,000PPM                      |
| Accuracy              | ± 50PPM                            |
| Sensor Series         | 4-20mA                             |
| Dimensions            | 4.6 x 3.3 x 1.2"   116 x 84 x 30mm |

The Sensaphone Carbon Dioxide sensor will detect levels of Carbon Dioxide from 0-2,000 ppm. Used with any Sensaphone that accepts a 4-20mA input signal, the sensor will provide real time data and will cause your Sensaphone to activate an alarm when the CO<sub>2</sub> level reaches a set level. The sensor will need a 24VDC power supply to operate (Part # FGD-0070)

4-20mA Type Carbon Dioxide (CO<sub>2</sub>) Sensor. . . . . FGD-0068

## 4-20mA Series Outdoor Carbon Dioxide (CO<sub>2</sub>) Sensor



|                       |  |
|-----------------------|--|
| Carbon Monoxide Range | 0 to 20,000PPM                           |
| Accuracy              | ± 30PPM + 3% of reading with Auto Cal on |
| Sensor Series         | 4-20mA                                   |
| Dimensions            | 4.6 x 3.3 x 1.2"   116 x 84 x 30mm       |

The Sensaphone Carbon Dioxide sensor will detect levels of Carbon Dioxide from 0-20,000 ppm. The transmitter can be programed to detect levels from 2,000 to 20,000 ppm. Used with any Sensaphone that will accept a 4-20mA input signal, the device will provide real time data and will cause your Sensaphone to activate an alarm when the CO<sub>2</sub> level reaches a set threshold. A weatherproof enclosure ensures proper operation outdoors. The sensor will require a 24VDC power supply to operate (Part # FGD-0070)

4-20mA Type Outdoor Carbon Dioxide (CO<sub>2</sub>) Sensor. . . . . FGD-0068-OD

## 4-20mA Series Duct Mount Carbon Dioxide (CO<sub>2</sub>) Sensor



|                       |  |
|-----------------------|--|
| Carbon Monoxide Range | 0 to 20,000PPM                           |
| Accuracy              | ± 30PPM + 3% of reading with Auto Cal on |
| Sensor Series         | 4-20mA                                   |
| Dimensions            | 5.7 x 3.95 x 2.5"   145 x 100 x 63mm     |

The Sensaphone Carbon Dioxide sensor will detect levels of Carbon Dioxide from 0-2,000 ppm. Used with any Sensaphone that will accept a 4-20mA input signal, the device will provide real time data and will cause your Sensaphone to activate an alarm when the CO<sub>2</sub> level reaches a set threshold. The sensor is specifically designed to be mounted on ductwork.

4-20mA Type Duct Mount Carbon Dioxide (CO<sub>2</sub>) Sensor . . . . . FGD-0068-DUCT



# Sensaphone Air Quality Sensors

## 4-20mA Series 0-20k Carbon Dioxide (CO<sub>2</sub>) Sensor



|                       |  |
|-----------------------|--|
| Carbon Monoxide Range | 0 to 20,000PPM                           |
| Accuracy              | ± 30PPM + 3% of reading with Auto Cal on |
| Sensor Series         | 4-20mA                                   |
| Dimensions            | 4.6 x 3.3 x 1.2"   116 x 84 x 30mm       |

The Sensaphone Carbon Dioxide sensor will detect levels of Carbon Dioxide from 0-20,000 ppm and can be programed to detect levels from 2,000 to 20,000 ppm. Used with any Sensaphone that accepts a 4-20mA input signal, the sensor will provide real time data and will cause your Sensaphone to activate an alarm when the CO<sub>2</sub> level reaches a set level.

4-20mA Type 0-20k Carbon Dioxide (CO<sub>2</sub>) Sensor . . . . . FGD-0068-20K

## 4-20mA Series Carbon Monoxide (CO) Sensor



|                       |                                     |
|-----------------------|-------------------------------------|
| Carbon Monoxide Range | 0 to 300PPM                         |
| Accuracy              | ± 5%PPM                             |
| Sensor Series         | 4-20mA                              |
| Dimensions            | 7.2 x 4.9 x 1.7"   182 x 124 x 43mm |

Carbon Monoxide is a highly toxic gas that has no color or odor. The Sensaphone Carbon Monoxide Sensor will allow you to monitor CO levels from 0-300 ppm with any Sensaphone that will accept a 4-20mA input signal. The 1" x .5" LCD displays the PPM and menu parameters. The sensor will require a 24VDC power supply to operate (Part # FGD-0070).

4-20mA Type Carbon Monoxide Sensor. . . . . FGD-0065

## 4-20mA Series Duct Mount Airflow Sensor



|                             |   |
|-----------------------------|---|
| Air Flow Speed Range        | 0-8m/s or 1-16m/s or 0-16m/s by removing jumper |
| Operating Temperature Range | 32° to 122°F   0° to 50°C                       |
| Operating Humidity Range    | 5 - 95% RH                                      |
| Depth of Insertion Channel  | 2-8"   50 - 200mm                               |

This air flow transmitter registers the airflow speed according to a thermal principal based on the fact that the cooling action of air increases with airspeed. Used with any Sensaphone that will accept a 4-20mA input signal, the device will provide real time data and will cause your Sensaphone to activate an alarm when the airflow reaches a set threshold. This is especially useful for monitoring air conditioning in ducts. The sensor can provide relative air flow from 0-16m/s. The sensor will need a 24VDC power supply to operate (Part # FGD-0070).

4-20mA Type Duct Mount Airflow Sensor. . . . . FGD-0069-DUCT



# Sensaphone Security Accessories

## Contact Series Smoke Detector



|                             |                                    |
|-----------------------------|------------------------------------|
| Operating Temperature Range | 40° to 100°F   4° to 37°C          |
| Housing                     | Plastic                            |
| Sensor Series               | Contact Series                     |
| Dimensions                  | 6.5" diameter x 2.6"   72mm x 40mm |

The Smoke Detector with relay output is designed for use in commercial and residential applications. The device requires hardwired 120VAC 60Hz power (220VAC 50 Hz optional). Up to six devices can be connected together and a 90dBA audible horn is included. It includes a standard battery backup. This smoke detector includes a relay output and can be used with all Sensaphone models.

Contact Type Smoke Detector for 110VAC w/ Battery Backup . . . . . FGD-0049-B  
Contact Type Smoke Detector for 220VAC . . . . . FGD-0049-220V

## Contact Series Infrared Motion Detection Sensor



|               |                                 |
|---------------|---------------------------------|
| Range         | Approximately 40'               |
| Battery Life  | 3 to 5 years                    |
| Sensor Series | Contact Series                  |
| Dimensions    | 4 x 6 x 1.5"   101 x 152 x 38mm |

The Infrared Motion Detection sensor can be used with all Sensaphone models to monitor the movement of warm bodies in a specific area. It will cause an alarm if motion is detected. Its range of detection covers approximately forty feet of area. Multiple sensors can be wired in series to a single input.

Contact Type Infrared Motion Detection Sensor . . . . . FGD-0007

## Contact Series Magnetic Reed Door & Window Switch



|               |                                  |
|---------------|----------------------------------|
| Connection    | Hardwired                        |
| Housing       | Plastic                          |
| Sensor Series | Contact Series                   |
| Dimensions    | 2.5 x .75 x .5"   63 x 19 x 13mm |

The magnetic reed switch may be used with all Sensaphone Models to detect any unauthorized entry or intrusion. They are usually installed on doors or windows to detect their opening and closing. Several magnetic reed switches may be wired in series.

Contact Type Magnetic Reed Door & Window Switch . . . . . FGD-0006



# Sensaphone Power Accessories

## Accessory Series 24VDC Power Supply for 4-20mA Sensors with Battery Backup



|                         |                                    |
|-------------------------|------------------------------------|
| Battery Backup Duration | Up to 8 hours                      |
| Power                   | 24V / 40mA will power two devices  |
| Sensor Series           | Accessory                          |
| Dimensions              | 7.5 x 3.6 x 1.2"   190 x 92 x 31mm |

4-20mA type transducers require an external power supply to operate when used with most Sensaphone devices. The 24VDC Power Supply with Battery Backup provides two parallel 24V outputs that can be used to power up to two 4-20mA transducers or any 24VDC device that requires battery backup. The unit includes (4) AA NiMh rechargeable batteries that will keep the transducers running for up to 24 hours in the event of a power failure. These devices are available with a domestic or international power supply.

24VDC Power Supply for 4-20mA Sensors with Battery Backup . . . . . FGD-0070  
 24VDC Power Supply for 4-20mA Sensors with Battery Backup & International Power Supply . . . . . FGD-0070-INT

## Accessory Series Din Rail Mount 24V Power Supply



|                       |  |
|-----------------------|--|
| Input                 | 88 - 264 VAC, 47 - 63 Hz                       |
| Output                | 24VDC @ 2.5A (60W)                             |
| Operating Temperature | -20° to 70°C (Derate starting at 50°C)         |
| Mounting              | Snap-on to DIN TS25/7.5 or TS35/15 rail system |

This 24V power supply is capable of providing up to 2.5 Amps of output current which can be used to power sensors, 4-20mA current loops, or other controls. The DIN rail mounting saves space in tight enclosures. It also features high efficiency, a wide input voltage range 88-264VAC, and UL approvals. The power supply is protected against overvoltage, overload and short-circuit conditions.

Din Rail Mount 24V Power Supply. . . . . FGD-0071

## Accessory Series PowerOut Alert Power Failure Switch



|                             |                           |
|-----------------------------|---------------------------|
| Operating Temperature Range | 40° to 100°F   4° to 37°C |
| Time Delay                  | 3 to 8 minutes            |
| Contact Rating              | .5 Amp @30V               |
| Dimensions                  | 2.3 x 3 x 2"              |

A compact power outage monitoring device that detects power failures by plugging into any 110 VAC receptacle outlet. When power loss is detected it will notify the Sensaphone. Works with all Sensaphone products. Comes with 15 feet of wire.

Contact Type PowerOut Alert Power Failure Switch . . . . . FGD-0054



# Sensaphone Industrial Sensors

## 4-20mA Series Pressure Sensor



|                       |                                |
|-----------------------|--------------------------------|
| Measuring Range       | 0 to 200 psi                   |
| Operating Temperature | -40°F to 194°F   -40°C to 90°C |
| Process Connection    | 1/4 -18 NPT                    |
| Dimensions            | 2.63" x .75"   66.9 x 18.9mm   |

The Sensaphone Pressure Sensor can be used to measure and detect loss of pressure in many applications. An alarm from the pressure sensor can indicate a problem with a pump, a possible clogged influent line, loss of suction, a downstream clog or perhaps a burst pipe. Any of those failures can cause a pump motor to overheat and warp. The sensor will need a 24VDC power supply to operate (Part # FGD-0070)

4-20mA Type Pressure Sensor . . . . .FGD-0301

## 4-20mA Series Vibration Sensor



|                             |                        |
|-----------------------------|------------------------|
| Measuring Range             | 0 to 25RMS             |
| Frequency Range Hz          | 10 to 1,000            |
| Operating Temperature Range | -25° to 80°C           |
| Protection                  | IP 67 / IP 68 / IP 69K |

The Sensaphone Vibration Monitor is designed to be permanently mounted on industrial equipment and continuously monitor the changes in a machine's vibration level. Detecting these changes early on prevents machinery from catastrophic failure, secondary damage, and expensive down time. The sensor will require a 24VDC power supply to operate (Part # FGD-0070).

4-20mA Type Vibration Sensor . . . . .FGD-0303  
Vibration Sensor Mounting Magnet . . . . .FGD-0303-MOUNT

## 4-20mA Series Differential Pressure Sensor with Duct Mount Kit



|                   |  |
|-------------------|--|
| Media Compability | Dry air or inert gas                               |
| Input Power       | 2-wire, loop-powered 4-20mA                        |
| Mode              | Unidirectional or bidirectional, switch selectable |
| Dimensions        | 3.3" x 4.5" x 2.2"   84mm x 114mm x 55mm           |

This Differential Pressure Sensor kit comes with everything needed to monitor differential pressures in ductwork. The sensor features excellent tolerance to overpressure and vibration reduces field failures. A high accuracy digital sensor maintains calibration and reduces callbacks. The sensor monitors positive and negative pressure from the two include duct mounts. The kit also includes 12' of tubing for connecting the duct mounts to the sensor, mounting hardware, and installation instructions. The sensor will need a 24VDC power supply to operate (Part # FGD-0070)

4-20mA Type Differential Pressure . . . . .FGD-0302-DUCT



4-20mA  
Series

## Differential Pressure Sensor with Wall Mount Kit



|                     |  |
|---------------------|--|
| Media Compatibility | Dry air or inert gas                               |
| Input Power         | 2-wire, loop-powered 4-20mA                        |
| Mode                | Unidirectional or bidirectional, switch selectable |
| Dimensions          | 3.3" x 4.5" x 2.2"   84mm x 114mm x 55mm           |

This Differential Pressure Sensor kit comes with two subtle recessed wall mount pickup tubes to monitor differential pressure away from the sensor. The sensor features excellent tolerance to overpressure and a high accuracy digital sensor maintains calibration and reduces callbacks. The sensor monitors positive and negative pressure from the two included wall mounts. The kit also includes two sets of 12' tubing for connecting the wall mounts to the sensor, mounting hardware, and installation instructions. The sensor will need a 24VDC power supply to operate (Part # FGD-0070)

4-20mA Type Pressure Sensor . . . . .FGD-0303-ROOM

4-20mA  
Series

## Split Core Current Sensor



|                       |   |
|-----------------------|---|
| Sensor Supply Voltage | +12 to 30 VDC                             |
| Supply Current        | 36 mA maximum                             |
| Max Load Resistance   | 700 Ohms @ 24 VDC (Vs-9)/0.02-40.2        |
| Aperture (Hole) Size  | 0.75" DIA (insulated conductors required) |

The split core current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear and proportional 4 to 20 mA output signal which can be read by most Sensaphones. The sensors have jumper selectable input ranges, are fast acting and extremely accurate from 1 to 100% of the full scale output, and are factory calibrated using a NIST traceable standard.

4-20mA Type 50 Amp Split Core Current Sensor . . . . . FGD-0075-50

4-20mA Type 200 Amp Split Core Current Sensor . . . . . FGD-0075-200



## Learn More About Industrial-Rated Sensors

Sensaphone now offers a full line of sensors to monitor more than just temperature and humidity. Air Quality, Water Quality, Pressure and Vibration sensors are all assisting customers to get more from their Sensaphone. These sensors provide real world data, so that you can take action before production is impacted, equipment and property are damaged, or the environment is contaminated. You reduce the costs of production drops, man-hours for site visits, cleanup and fines.

Learn more at [www.sensaphone.com/industries](http://www.sensaphone.com/industries)



# Sensaphone Water Quality Sensors

## 4-20mA Series Conductivity Sensor



The Sensaphone Toroidal Conductivity Sensors are used in processes where conventional contacting sensors may become fouled or corroded. These probes are unique in the marketplace. They are loop-powered and provide direct 4-20 mA output. (Part # FGD-0070)

|   |          |
|---|----------|
| 4-20mA Type Toroidal Conductivity Sensor 10MS . . . . .     | FGD-0320 |
| 4-20mA Type Toroidal Conductivity Sensor 100MS. . . . .     | FGD-0321 |
| 4-20mA Type Toroidal Conductivity Sensor 1,000 MS . . . . . | FGD-0322 |

## 4-20mA Series Oxidation-Reduction Potential (ORP) Sensor



The Sensaphone ORP sensors are dependable industrial grade sensors designed to provide accurate measurement and a long service life under the most demanding conditions. ORP sensors measure of the cleanliness of the water by measuring the contaminants in the water. The sensor will require a 24VDC power supply to operate (Part # FGD-0070).

|                                  |          |
|----------------------------------|----------|
| 4-20mA Type ORP Sensor . . . . . | FGD-0315 |
|----------------------------------|----------|

## 4-20mA Series 4-20mA Type pH Sensor



Changes in pH can be critical to water quality. Whether it be in a swimming pool, or more critical applications such water and wastewater treatment facilities, or clean water applications such as laboratories, food and beverage, HVAC systems or healthcare, this integral two-wire 4-20mA pH transmitter can be feed data directly to your Sensaphone device. The sensor will require a 24VDC power supply to operate. (Part # FGD-0053)

|                            |          |
|----------------------------|----------|
| 4-20mA pH Sensor . . . . . | FGD-0305 |
|----------------------------|----------|

## Accessory Series Dissolved Oxygen Sensor



This is the only optical dissolved oxygen sensor that outputs directly 4-20 mA for the %-saturation and concentration (mg/l or ppm). Optical DO sensors offer advantages over electrochemical DO sensors in that they are inherently self-referencing, and require no warm-up period. These sensors do not require constant flow to maintain a stable reading and are less affected by fouling. Maintenance is trivial. The sensor membrane lasts for approximately 2 years and is inexpensive to replace. The body is corrosion resistant and designed to stand up to the harsh environment of wastewater. No sensor on the market packs as much into one small package at such an affordable price.

|  |          |
|--|----------|
| 4-20mA Dissolved Oxygen Sensor . . . . . | FGD-0325 |
|--|----------|



# Sensaphone WSG30 Wireless Sensors

The Sensaphone WSG30 offers monitoring of critical conditions at remote locations without running wires. Based on proven Sensaphone remote monitoring methods, the WSG30 has the ability to read sensor status from wireless sensors. And not just simple on/off status or open/closed conditions. The wireless technology includes full analog capability so real world values can be monitored like actual temperatures, real tank levels, and flow rates.

The Sensaphone WSG30 can accept up to thirty wireless sensors. A variety of wireless sensor types are available to choose from in addition to two wireless interface modules. The interface modules allow you to

connect to existing equipment and transmit their status back to the WSG30.

The WSG30 Wireless Sensors all include a built in radio transmitter and run on AA batteries which will power the sensors for up to two years. An optional plug-in power supply is also available if one isn't supplied with the sensor. The batteries become a backup if main AC power fails. The wireless sensors can be placed up to 300' | 91m away from the WSG30 or much farther with a line of sight. The sensors also can create a mesh network that expands the wireless sensor range.

## Temperature Sensor



Includes a temperature element for monitoring temperatures wherever the device is installed. This sensor will monitor temperatures from 32° to 115°F | 0° to 46°C.

WSG Wireless Temperature Sensor . . . . . FGD-WSG30-TMP

## Temperature Sensor w/ Probe



Includes an external temperature probe for monitoring in a harsh environment such as a refrigerator or freezer. The sensor will monitor temperature from -109° to 115°F | -85° to 46°C. In temperatures below -20°F use part number FGD-WSG30-TEX85.

WSG Wireless Temperature Sensor w/External Probe . . . . . FGD-WSG30-TEX

WSG Wireless Ultra Low Temperature Sensor w/External Probe . . . . . FGD-WSG30-TEX85

WSG Wireless Temperature Sensor with RTD Probe . . . . . FGD-WSG30-RTD

WSG Wireless Ultra Low Temperature Sensor in Glass Bead Vial . . . . . FGD-WSG30-GBV

## Dry Contact Bridge



Includes input terminals for connecting to any normally-open or normally-closed output.

WSG Wireless Dry Contact Bridge . . . . . FGD-WSG30-DRY

## Humidity Sensor



Includes a humidity sensor element for monitoring humidity from 0 to 95% wherever the device is installed.

WSG Wireless Humidity Sensor . . . . . FGD-WSG30-HUM

## Power Failure Sensor



Includes a wall plug in power supply that will detect the loss of power at the outlet where the power supply is attached. Two AA batteries will power the sensor and allow it to transmit alarms in the event of a power outage.

WSG Wireless Power Failure Sensor . . . . . FGD-WSG30-PWR

## 4-20mA Bridge



Includes a 4-20mA input and 24V loop power supply. The sensor can be used to monitor the output of any 4-20mA transducer. Comes with plug in power supply.

WSG Wireless 4-20mA Bridge . . . . . FGD-WSG30-4-20

## Spot Water Detection Sensor



Includes water sensing probes for monitoring the presence of water at a particular location.

WSG Wireless Spot Water Detection Sensor . . . . . FGD-WSG30-SPOT

## Zone Water Detection Sensor



Includes 10' of water sensing cable for monitoring for the presence of water in a particular area. Additional lengths can be added to increase the monitored area.

WSG Wireless Zone Water Detection Sensor . . . . . FGD-WSG30-ZONE





# A COMPLETE, RELIABLE MONITORING SOLUTION FOR YOUR DATA CENTER



## Supervised Sensors

All of the IMS sensors are continuously monitored by the IMS Host or Node. If they become disconnected, an alert will be sent.



## Powered Sensors

All IMS sensors are powered through their connection with the IMS Host or Node.



## Redundant Communication

Receive alarm notifications via several different channels; e-mail, text message and phone.



## Integrated Web Server

The IMS system can now be viewed from any network connected device.



## Plug and Play Sensors

All IMS Sensors are connected using standard CAT-5 cables. As soon as they're plugged in they become active and start working.



## Convenient CAT-5 Cabling

The use of CAT-5 jacks for sensor inputs allows the use of existing structured cabling to connect remote sensors.



## Data Logging

All IMS systems gather a time-stamped collection of input values that can be used to view and graph information.



## Detailed Event History

The eventlog contains time-stamped messages that describe activities performed by the unit such as alarm detection, user logins, telephone calls, and alarm acknowledgement.



## Network Management Integration

The IMS system helps maintain, monitor, expedite, and control conditions that effect both large and small networks.



## Video Integration with Alarm Triggering Image Capture

Alarms can be sent with an image of the condition that tripped that alarm.

## + CONVENIENT WEB-BASED MANAGEMENT



- **Manage** up to 31 IMS devices from one account
- **Store** and review datalogged records
- **Receive** an e-mail, phone call, or text message when an alarm has been detected
- **Real time** status updates available
- **View** from any web-enabled device



## CONVENIENT WEB-BASED MANAGEMENT... WITH AN INTEGRATED WEB SERVER



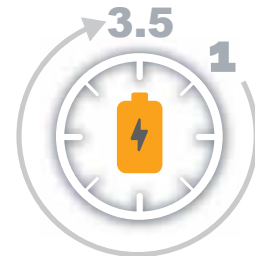
### REDUNDANT ALARM PATHS

Rest assured that your system is up and running 24/7. The IMS system uses an analog telephone line to call out in the event of an alarm. Even if there is a power outage, the system still has a way to communicate alarms.



### MANAGE MULTIPLE DEVICES

Need to monitor more than eight inputs? No problem. The IMS-4000 can accommodate up to 31 expansion nodes. Each Node can accept 8 sensors per device.



### BATTERY BACKED FOR 3.5 HOURS

What happens when the power goes out? The system will send an alarm and keeps recording data and operating as usual. With a rechargeable battery backup system, both the host and node systems will operate for up to 3.5 hours on battery power.



### DATALOGGING IN REAL TIME WITH ALARMS

Your sensor readings are securely archived and readily available with use of the ConsoleView Software. Data is stored locally on the IMS device, but can be downloaded for analysis. The IMS system can also generate an audit trail of all user data activities, edits or deletions.

An amazingly intuitive web-based control panel gives you the freedom to monitor environments from anywhere at anytime without the hassle of installing any extraneous software. You can securely and easily manage up to 31 devices as you need to—all from a single interface.

If any of your monitored conditions exceed their set limits, you'll receive immediate alerts, not just when you need them, but also where you'll see them. You can configure your device to send notifications via a phone call, text, or email.

**Learn more & request a free online demo at**  
[www.sensaphone.com/IMS-4000](http://www.sensaphone.com/IMS-4000)



# Sensaphone IMS-1000

## Single Room Monitoring Solution



### IMS-1000 Details

The rack-mountable Sensaphone IMS-1000 Single Room Monitoring Solution has a built-in web server that lets users view status, make changes, and review history while the included relay output can switch local devices on/off based on alarm activity. Receive alarm notifications through e-mail, text messaging, and SNMP. The available voice modem adds voice alerts and call-in status. Each sensor input features LEDs to indicate status while alarm LEDs show when power, IP, or battery alarms have been triggered.

- Web-based monitor for servers and other applications
- Built-in web server lets you to view status, make changes and review history
- Receive alarm notifications through a standard Ethernet connection
- Alarm notifications through e-mail, text messaging, and SNMP
- Up to eight plug-and-play CAT5 sensors monitor temperature, humidity, smoke, fire, break-in
- Included relay output can switch local devices on/off based on alarm activity
- Voice modem adds voice alerts and call-in status updates



#### ◀ Add a WiFi Option

Add the ability to have your IMS-1000 communicate over Wi-Fi. The Sensaphone Wi-Fi adapter is a high-speed, long-range outdoor Wireless Bridge that is an ideal solution for adding Wi-Fi connectivity to the IMS-1000. This is the perfect cost effective solution when faced with running long runs of communication cable.

### What's in the box

- ✓ IMS-1000
- ✓ Telephone Cord (Optional)
- ✓ Power Supply
- ✓ Mounting hardware
- ✓ CD
- ✓ User's Manual and Documentation

### Included Features

- ✓ Internal battery-backup system provides 3.5 hours of continuous monitoring and alerts
- ✓ Power failure monitoring
- ✓ No monthly fees

### Product Name

### Part Number

Sensaphone IMS-1000 Single Room Monitoring Solution w/ Voice Modem. . . . .IMS-1002





## Easy to use sensors

Eight plug and play sensor inputs monitor environmental conditions and/or alarm contacts. All sensors use CAT5 cabling and are active and supervised as soon as they're plugged in.



## Web Interface

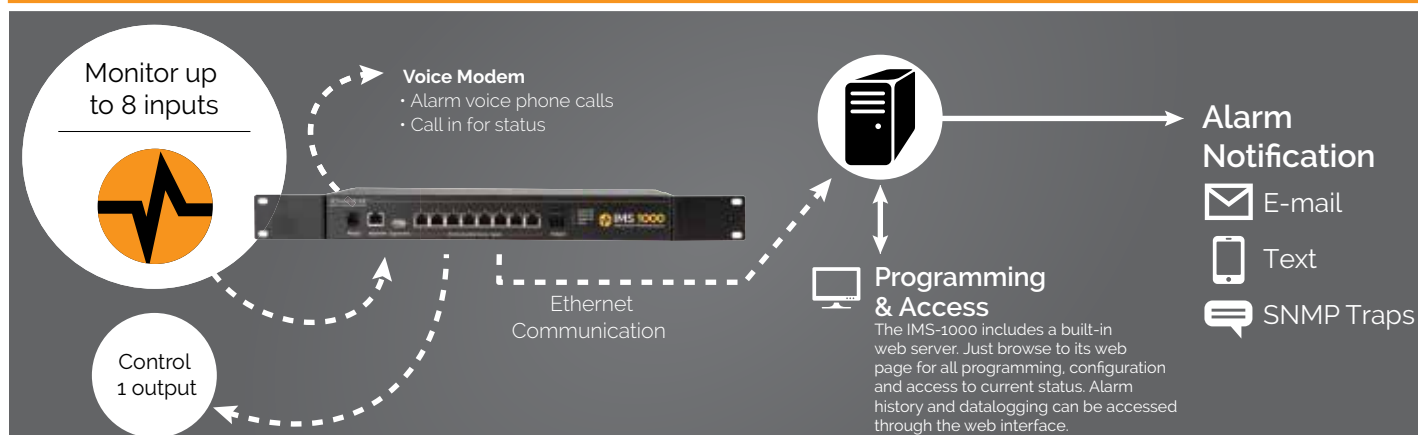
Effortlessly check the latest status, check previous alarm events, or make programming changes to your IMS-1000 through the built-in webpage.



## Redundancy

The custom voice phone calls provide an alarm delivery path independent of the computer network. The built in battery backup will keep the IMS-1000 monitoring when the power goes out.

## How it works



## Features & Specifications

|                              |   |                            |   |
|------------------------------|---|----------------------------|---|
| <b>Communication Method:</b> | Ethernet and Phone line   | <b>Alarm Notification:</b> | 16 User profiles with 4 contacts per profile - any combination of e-mail, text message, SNMP trap or voice phone calls (optional) |
| <b>Number of Inputs:</b>     | 8   | <b>IP Monitoring:</b>      | Up to 16 network devices or servers, specific TCP port services can be monitored for connectivity and response                    |
| <b>Input Types:</b>          | IMS Solution  | <b>Data Logging:</b>       | 100,000 samples (include data, date, and time), 1 second to 1 month sampling rates, all sensors, battery and power                |
| <b>Output Relay:</b>         | Manual or automatic control   | <b>Warranty:</b>           | 3 Years   |
| <b>Remote Access:</b>        | Website to access status and programming                            |                            |   |
| <b>Local Access:</b>         | LEDs for System On, Battery Status, Output Status, and Alarm Status |                            |   |
| <b>Physical:</b>             | 14 x 1.75 x 7" • 3.75lbs<br>355 x 44 x 178mm • 1.7kg                |                            |   |



# Sensaphone IMS-4000

## Expandable Web Based Monitoring



The Infrastructure Monitoring System (IMS-4000) is the perfect solution to oversee critical environmental conditions in multiple locations across your entire infrastructure. The system is designed to be a comprehensive method of ensuring 100% up-time of your computer systems. By monitoring all aspects of your computer room, including environmental conditions and network equipment, the system will keep you informed of the status of your infrastructure. Monitored conditions can include temperature levels, humidity levels, line voltage, leak detection, server response, UPS systems, and more. The system allows appropriate personnel to be notified immediately of any detected problems. Notification can occur via voice telephone call, e-mail, or fax. An internal battery backup system insures that the unit will continue to run if main power fails. The system also includes the ability to remotely perform diagnostic tests via Touch-Tone commands or e-mail.

Each IMS-4000 host unit can support as many as eight environmental sensors – including temperature, humidity, smoke, sound-level, motion, water, break-in, air flow, and power outage – as well as IP-device

monitoring to ensure component availability across your network. As many as 31 expansion nodes can be added. The IMS-4000 can monitor computer-room activity through motion sensors or reed switches, alerting you when there is activity outside of normal working hours.

**Features:** Receive infrastructure status update information from any location at any time using it's built-in webserver. The ConsoleView software allow you to view status, make program changes and review data history.

**Alerts:** Receive timely alarm notifications through the Ethernet port and standard telephone interface. Whenever a problem occurs anywhere within your network environment, customizable voice alerts, e-mails, and text messaging notify you. Across Wide-Area Networks, you can select alerts from certain locations to go only to the nearest personnel.

IMS Monitoring Systems

| What's in the box                 |                  | Included Features  |
|-----------------------------------|------------------|--|
| ✓ IMS-4000E                       | ✓ Power Cord     | ✓ Internal rechargeable battery-backup system provides 3.5 hours of continuous monitoring and alerts |
| ✓ DB9 Serial Cable                | ✓ Telephone Cord | ✓ Power failure monitoring   |
| ✓ Mounting Hardware               | ✓ CD             | ✓ No monthly fees  |
| ✓ User's Manual and Documentation |                  |  |

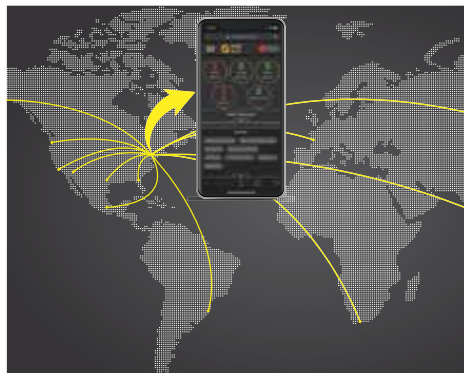
| Product Name                                      | Part Number |
|---|-------------|
| Sensaphone IMS-4000 Enterprise Host Unit. . . . . | IMS-4001E   |





### Easy to use sensors

Eight plug and play sensors monitor environmental conditions and/or alarm contacts per host and node. All sensors use CAT5 cabling and are active and supervised as soon as they're plugged in.



### Web-based management

Effortlessly manage several units, check the latest status, previous alarm events, or make programming changes to your IMS-4000 system with the included Web-based software.



### Expandable

The IMS-4000 Enterprise System is made to be expanded. With the ability to accept 31 Node units the IMS system can be spread out across a building, state, or country.

## Features & Specifications

|                      |  |
|----------------------|--|
| Communication Method | Ethernet & Phone line  |
| Number of Inputs     | 8, expandable to 256   |
| Input Types          | IMS Solution   |
| Remote Access        | Console View Software and or website to access status and programming  |
| Local Access         | LEDs to show ethernet connectivity, and power alarms   |
| Alarm Notification   | 64 User profiles with 4 contacts per profile - any combination of e-mail, text message, SNMP trap, or voice phone calls. |
| IP Monitoring        | Up to 64 network devices or servers per host or node, 2,048 total  |
| Data Logging         | 62,500 samples (include data, date, and time), 1 second to 1 month sampling rates, all sensors, battery and power        |
| Supported Protocols  | Web page - HTTP, PDA, WAP, and XML<br>SNMP - MIB with traps, GET, GETNEXT, and SET                                       |
| Power Supply         | Plug in power supply also monitors for power failures<br>Built in battery backup   |
| Physical             | 19 x 1.75 x 9.5"   482 x 44 x 241mm<br>7.4lbs   3.3kg  |
| Warranty             | 3 Years  |

## Popular Applications



### Data Center

Computer downtime is no longer acceptable in our fast paced world, so keeping your systems up and running should be a high priority. The IMS-4000 can call, text or email as soon as a problem arises.



### Cold Storage

Don't find out that your freezer has stopped running until the next morning. The IMS-4000 will alert you as soon as the temperature reaches a temperature you set.



# Sensaphone IMS-4000 Expansion

## IMS -4000 Expansion Node

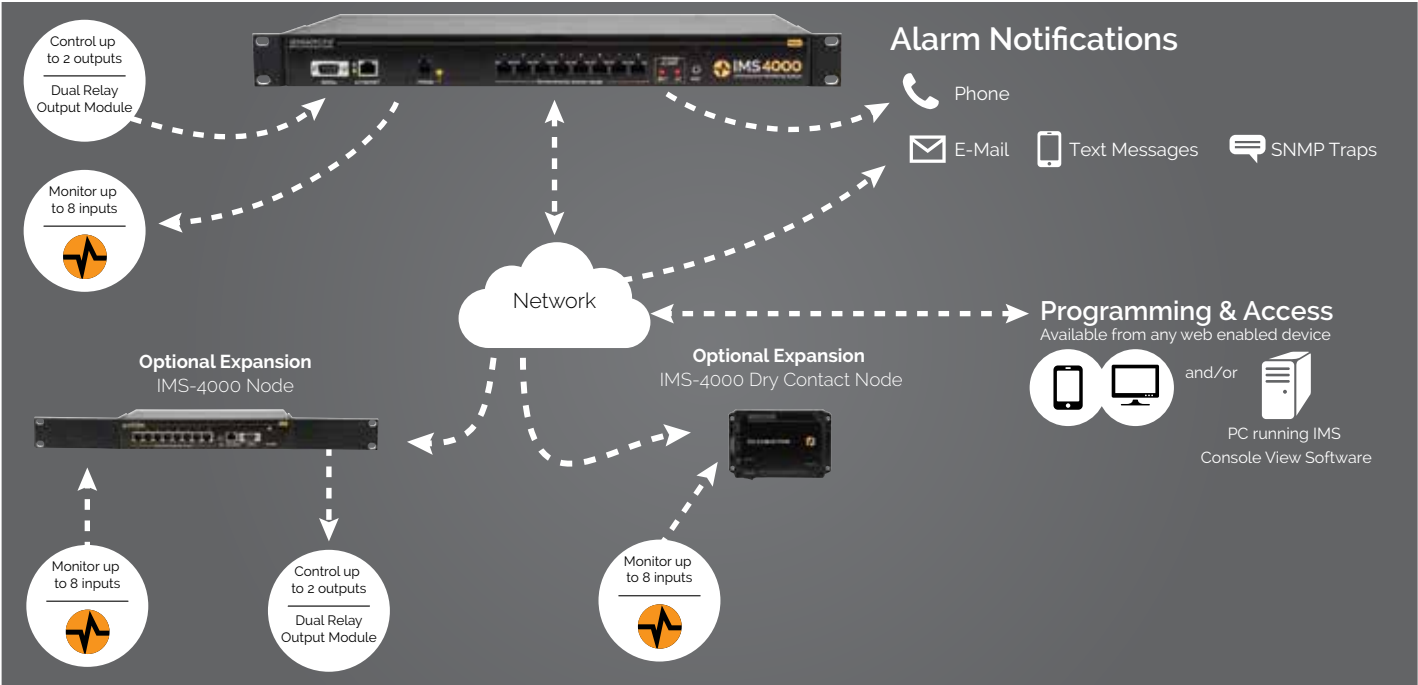


The IMS-4000 Node allows IMS-4000 users to expand their infrastructure and monitor additional inputs in locations away from the IMS-4000 Host. Up to thirty-one Nodes can be used with each IMS-4000 Host. Much like the Host, the Node can monitor eight inputs for environmental conditions and or alarm contacts from other computer equipment such as UPS systems. The Node connects to the Host via a RJ-45 10/100BASE-T Ethernet and is monitored via the ConsoleView software included with the Host or a website.

|                  |   |
|------------------|---|
| Number of Inputs | 8   |
| Input Types      | IMS Solution  |
| Remote Access    | Console View Software and or website to access status and programming                           |
| Local Access     | LEDs to show ethernet connectivity and power alarms. RS-232 serial port for local configuration |
| Power Supply     | Plug in power supply also monitors for power failures. Built in battery backup                  |
| Physical         | 9.6 x 1.75 x 7"   482 x 44 x 241mm<br>7.4lbs   3.3kg  |

|   |             |
|---|-------------|
| Product Name  | Part Number |
| Sensaphone IMS-4000 Enterprise Monitoring Node Expansion Unit . . . . .               | IMS-4002E   |
| Sensaphone IMS-4000 Enterprise Monitoring International Node Expansion Unit . . . . . | IMS-4003E   |

## How it works





# Sensaphone IMS-4000 Expansion

## IMS Accessories



### IMS-4000 Dual Relay Output Module



The IMS-4310 Dual Relay Output Module allows you to control two devices from any IMS-4000 Host or Node. Each output may be controlled either manually or automatically. Each output has the option of providing either a dry relay contact or 12VDC power. Two switches located inside the device select the output type.

| Part Name                                   | Part Number |
|---|-------------|
| IMS-4000 Dual Relay Output Module . . . . . | IMS-4310E   |



### IMS-4000 Dry Contact Node



|                       |   |
|-----------------------|---|
| Number of Inputs      | 8   |
| Input Types           | Dry Contact, Normally Open or Normally Closed       |
| Internal Monitoring   | AC Power, Backup Battery                            |
| Local Access          | Power LED, Ethernet LEDs                            |
| Operating Temperature | 32°to 122°F   0° to 50°C                            |
| Power Supply          | Plug in power supply<br>Built in battery backup     |
| Physical              | 7.3 x 5.5 x 1.5"   185 x 140 x 381mm<br>2lbs   .9kg |
| Power Consumption     | 2.5W  |

The IMS-4000 Dry Contact Node provides eight dry contact inputs (normally open/normally closed) and works in conjunction with the IMS Host. The device communicates with the IMS-4000 Host via its Ethernet connection. The Dry Contact Node is a cost-effective solution when your application only requires monitoring of dry contacts. With this device you do not need to use Dry Contact Bridges, thus reducing cost, installation time, and space. This device includes four AA rechargeable NiMH batteries for power backup in the event of a power failure. Both main power and battery charge are monitored and can be programmed to trip alarms as well. The unit comes in a black plastic enclosure with tabs for wall mounting. Rubber feet are also included for placement on a shelf/desktop.

| Part Name                           | Part Number |
|-------------------------------------|-------------|
| IMS-4000 Dry Contact Node . . . . . | IMS-4010E   |



# Sensaphone IMS Temperature Sensors



## IMS Room Temperature Sensor



|                          |                                    |
|--------------------------|------------------------------------|
| Sensor Temperature Range | 5° to 122°F   -15° to 50°C         |
| Accuracy                 | ± 3°F   ±1.7°C                     |
| Sensor Series            | IMS Solution                       |
| Dimensions               | 4.5 x 2.8 x 1.3"   110 x 70 x 30mm |

The IMS-4810E temperature sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor temperatures. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable.

### Part Name

|   |             |
|---|-------------|
| IMS Solution Room Temperature Sensor . . . . .    | IMS-4810E   |
| IMS Solution Room Temperature °C Sensor . . . . . | IMS-4810E-C |

### Part Number



## IMS Room Temperature Sensor w/ Display



|                          |   |
|--------------------------|---|
| Sensor Temperature Range | 32° to 95°F   0° to 35°C                                      |
| Accuracy                 | ± 3°F   ±1.7°C  |
| Sensor Series            | IMS Solution  |
| Dimensions               | 4.8 x 2.9 x 1.9"   120 x 73 x 47mm                            |
| Notes                    | Available in °F, or °C. See below for appropriate part number |

The IMS-4811E temperature sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor temperatures. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor includes a LCD display for local readings.

### Part Name

|  |           |
|--|-----------|
| IMS Solution Room Temperature Sensor w/ Display (°F) . . . . . | IMS-4811E |
| IMS Solution Room Temperature Sensor w/ Display (°C) . . . . . | IMS-4813E |

### Part Number



## IMS Mini Temperature Sensor



|                          |                                  |
|--------------------------|----------------------------------|
| Sensor Temperature Range | 5° to 140°F   -15° to 60°C       |
| Accuracy                 | ± 3°F   ±1.7°C                   |
| Sensor Series            | IMS Solution                     |
| Dimensions               | 2.1 x .6 x 1.4"   54 x 15 x 35mm |

The IMS-4812E Mini Temperature Sensor is designed to connect to the Sensaphone IMS series product line and monitor temperatures in tight locations (for example, inside equipment racks). The electrical connection between the sensor and IMS unit is made via the attached 7' RJ-45 patch cable.

### Part Name

|   |             |
|---|-------------|
| IMS Solution Mini Temperature Sensor (°F) . . . . . | IMS-4812E   |
| IMS Solution Mini Temperature Sensor (°C) . . . . . | IMS-4812E-C |

### Part Number



## IMS Ultra Low Temperature Sensor



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -122° to 53°F   -86° to 12°C      |
| Accuracy                 | ± 3°F   ±1.7°C                    |
| Sensor Series            | IMS Solution                      |
| Notes                    | Available with NIST Certification |

This sensor is designed to monitor temperatures in refrigerators or freezers. The connection between the sensor and IMS unit is made via the attached 7' RJ-45 patch cable. The sensor probe can reliably monitor temperatures as low as -122°F (-86°C). The temperature probe comes with 12' of cable.

### Part Name

### Part Number

IMS Solution Ultra Low Temperature Sensor . . . . . IMS-4814E  
 IMS Solution Ultra Low Temperature Sensor & NIST. . . . . IMS-4814E-NIST

## IMS Ultra Low Temperature Sensor in Glass Bead Vial



|                          |                                   |
|--------------------------|-----------------------------------|
| Sensor Temperature Range | -122° to 53°F   -86° to 12°C      |
| Accuracy                 | ± 3°F   ±1.7°C                    |
| Sensor Series            | IMS Solution                      |
| Notes                    | Available with NIST Certification |

This glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. The glass beads will slow the response time of the sensor allowing normal daily operations to occur without having an alarm. The connection between the sensor and IMS unit is made via the attached 7' RJ-45 patch cable. The temperature probe comes with 12' of cable.

### Part Name

### Part Number

IMS Solution Ultra Low Temperature Sensor in Glass Bead Vial . . . . . IMS-4815E  
 IMS Solution Ultra Low Temperature Sensor in Glass Bead Vial . . . . . IMS-4815E-NIST

## IMS Temperature Sensor w/ External Probe



|                          |                           |
|--------------------------|---------------------------|
| Sensor Temperature Range | 32° to 176°F   0° to 80°C |
| Accuracy                 | ± 3°F   ±1.7°C            |
| Sensor Series            | IMS Solution              |
| Dimensions               | 2.8" x 1.6"   72mm x 40mm |

This sensor is designed to connect to the Sensaphone IMS product line and monitor temperatures in areas where a traditional sensor won't fit. The electrical connection between the sensor and IMS unit is made via the attached 7' RJ-45 patch cable. The sensor probe may be secured inside equipment using the included clamp or it may be hung using tie wraps. The temperature probe comes with 12' of cable.

### Part Name

### Part Number

IMS Solution Temperature Sensor w/ External Probe. . . . . IMS-4816E



# Sensaphone IMS Sensors



## IMS Room Humidity Sensor



|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | 32° to 122°F   -28° to 80°C        |
| Humidity              | 0 to 100%                          |
| Sensor Series         | IMS Solution                       |
| Dimensions            | 4.5 x 2.8 x 1.3"   114 x 70 x 32mm |

The IMS-4820E humidity sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor humidity levels. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box.

### Part Name

IMS Solution Room Humidity Sensor. . . . . **Part Number**  
IMS-4820E



## IMS Room Humidity Sensor w/ Display



|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | 32° to 158°F   0° to 70°C          |
| Humidity              | 5 to 95%                           |
| Sensor Series         | IMS Solution                       |
| Dimensions            | 4.8 x 2.9 x 1.9"   120 x 73 x 47mm |

The IMS-4821E humidity sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor humidity. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box. The IMS-4821E includes a LCD display for local readings.

### Part Name

IMS Solution Room Humidity Sensor w/ Display . . . . . **Part Number**  
IMS-4821E



## IMS Water Detection Sensor



|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | 32° to 140°F   0° to 60°C          |
| Housing               | Plastic                            |
| Sensor Series         | IMS Series                         |
| Dimensions            | 5.5 x 3.3 x 1.4"   140 x 83 x 33mm |

The IMS-4830E Water Detection Sensor protects your server and equipment from damaging water leaks from malfunctioning HVAC systems, cafeteria accidents, or any general plumbing failures in your facilities. The IMS-4830E is powered directly by the IMS unit when connected with the included 7' RJ-45 patch cable. 10' of water sensing rope is also included.

### Part Name

IMS Solution Water Detection Sensor . . . . . **Part Number**  
IMS-4830E  
Water Rope Extension for Zone Water Detection Sensors . . . . . IMS-4831E



## Current Sensors



|                       |  |
|-----------------------|--|
| Operating Temperature | 5° to 104°F   -15° to 40°C   |
| Accuracy              | ± 2%   |
| Power Connection      | 15 Amp: IEC320-C14 inlet   IEC320-C13 outlet<br>20 Amp: IEC320-C20 inlet   IEC320-C19 outlet |
| Dimensions            | 7.3 x 2.1 x 3.6"   184 x 54 x 92mm   |

These sensors monitor current consumption of a particular device or circuit. It reports the actual current flow in the circuit, allowing you to know the current draw from devices. Any failed generator starts are reported to you immediately. These units can monitor a voltage range from 0–250VAC 50/60Hz.

| Part Name                                    | Part Number |
|--|-------------|
| IMS Solution 15 Amp Current Sensor. . . . .  | IMS-4841E   |
| IMS Solution 20 Amp Current Sensor . . . . . | IMS-4842E   |

## External Power Failure Sensor



|                  |                                  |
|------------------|----------------------------------|
| Range            | 0 to 250 VAC, 50/60 Hz           |
| Accuracy         | ± 2%                             |
| Power Connection | Universal IEC-320 power inlet    |
| Dimensions       | 5 x 2.5 x 1.6"   127 x 63 x 41mm |

The IMS-4840E External Power Failure Sensor lets you monitor power anywhere within your infrastructure. It reports any loss of power and measures the current voltage in the circuit, allowing you to know the status of each server rack and even of your remote UPS. Any failed generator starts are reported to you immediately. The IMS-4840E can monitor voltage from 0–250VAC 50/60Hz

| Part Name  | Part Number |
|--|-------------|
| IMS Solution External Power Failure Sensor . . . . . | IMS-4840E   |

## Axis IP Camera



|                       |                                   |
|-----------------------|-----------------------------------|
| Operating Temperature | 32° to 122°F   0° to 50°C         |
| Viewing Angle         | 47° horizontal                    |
| Resolution            | 640 x 480                         |
| Dimensions            | 2.3 x 3.7 x 1.4"   59 x 95 x 34mm |

The Axis IP Camera is a small network camera ideal for monitoring your small business property, data center, or residence. The camera can be used in combination with the IMS-1000 or IMS-4000 systems to send camera snapshots via e-mail when alarms are detected.

| Part Name               | Part Number |
|-------------------------|-------------|
| Axis IP Camera. . . . . | IMS-4424E   |



## IMS Dry Contact Bridge



|                       |  |
|-----------------------|--|
| Operating Temperature | 32° to 122°F   0° to 50°C                    |
| Input                 | Normally Open or Normally Closed Dry Contact |
| Source/Sense Voltage  | 14VDC  |
| Dimensions            | 4.2 x 3.3 x 1.3"   106 x 84 x 33mm           |

The IMS-4850E Dry Contact Bridge allows you to connect a dry contact alarm from any device to your IMS. The Dry Contact Bridge is compatible with Normally Open and Normally Closed contacts. The electrical connection between the sensor and IMS is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or rest on the floor.

### Part Name

IMS Solution Dry Contact Bridge . . . . .IMS-4850E

### Part Number

## IMS 4-20mA Bridge



|               |                                    |
|---------------|------------------------------------|
| Current Limit | 50mA                               |
| Accuracy      | ± .25%                             |
| Sensor Series | IMS Solution                       |
| Dimensions    | 4.2 x 3.3 x 1.3"   106 x 84 x 33mm |

The 4–20mA Bridge allows you to connect a 4–20mA transducer to your Sensaphone IMS unit. The 4–20mA Bridge features optical isolation between the input and the IMS unit, which ensures trouble-free operation and safety. The electrical connection between the bridge and IMS is made via RJ-45 patch cable (not included). The bridge may be mounted either on a wall or rest on the floor.

### Part Name

IMS Solution 4-20mA Bridge . . . . .IMS-4851E

### Part Number

## IMS Magnetic Reed Door & Window Switch



|                       |  |
|-----------------------|--|
| Operating Temperature | 32° to 122°F   0° to 50°C                    |
| Bridge Input          | Normally Open or Normally Closed Dry Contact |
| Source/Sense Voltage  | 14VDC  |
| Sensor Series         | IMS Solution                                 |

The IMS-4860E Magnetic Reed Switch with bridge enables your IMS unit to detect if any unauthorized entry or intrusion has occurred. The bridge may be mounted either on a wall or rest on the floor. The switch is mounted to doors or windows you wish to monitor. The electrical connection between the bridge and IMS unit is made via 7' RJ-45 patch cable.

### Part Name

IMS Solution Magnetic Reed Door & Window Switch . . . . .IMS-4860E

### Part Number



## IMS Infrared Motion Detection Sensor



|                       |                                   |
|-----------------------|-----------------------------------|
| Operating Temperature | -4° to 140°F   -20° to 60°C       |
| Connection            | RJ45                              |
| Sensor Series         | IMS Solution                      |
| Dimensions            | 3.8 x 1.8 x 2.5"   97 x 63 x 47mm |

The IMS-4861E Passive Infrared Detection Sensor is a dual-element passive infrared intrusion detector for use in electronic security systems. It reduces false alarms by eliminating background noises and nuisance stimuli. The IMS-4861E employs variable pulse-count adjustment, thus making it adaptable for use both inside and outside of server/equipment rooms.

| Part Name   | Part Number |
|---|-------------|
| IMS Solution Infrared Motion Detection Sensor . . . . . | IMS-4861E   |

## Smoke Detection Sensor



|                       |                                  |
|-----------------------|----------------------------------|
| Operating Temperature | 40° to 100°F   4° to 37°C        |
| Connection            | RJ45                             |
| Sensor Series         | IMS Solution                     |
| Dimensions            | 6.5 diameter x 2.6"   165 x 66mm |

The IMS-4862E Smoke Detector Sensor is designed to connect to the IMS Host or Node and monitor for smoke in indoor environments. The electrical connection between the sensor and IMS is made via the attached RJ-45 patch cable. The sensor may be secured to a wall or ceiling (hardware not included).

| Part Name                                     | Part Number |
|---|-------------|
| IMS Solution Smoke Detection Sensor . . . . . | IMS-4862E   |

## IMS Airflow Sensor



|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | 32° to 80° F   0° to 27°C          |
| Sensing Range         | Approximately 0 to 2,000 fpm       |
| Sensor Series         | IMS Solution                       |
| Dimensions            | 4.2 x 1.6 x 0.9"   106 x 40 x 23mm |

The Airflow sensor is designed to monitor for the presence or absence of cool moving air. This is especially useful for monitoring air conditioning systems. The sensor can provide relative air flow as a percentage from 0 to 100. The sensor is compatible with both the IMS-1000 and IMS-4000 devices.

| Part Name                             | Part Number |
|---------------------------------------|-------------|
| IMS Solution Airflow Sensor . . . . . | IMS-4863E   |



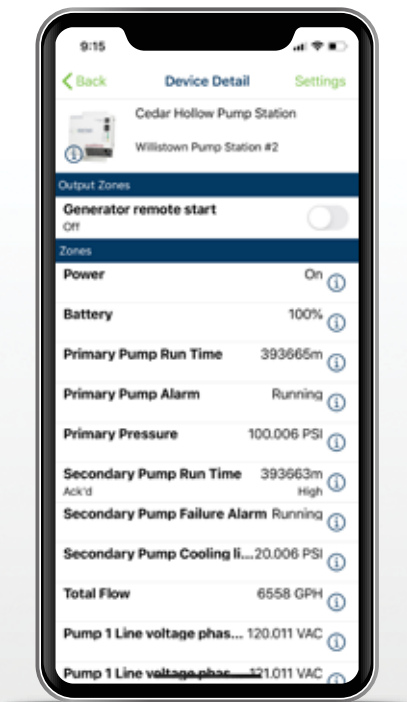
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## ENVIRONMENTAL MONITORING FOR THE MOBILE AGE



Sensaphone's cloud-based Sentinel, Sentinel Pro and Stratus EMS allow you to monitor remote facilities and environments and check critical conditions of your sensitive commodities with the same degree of certainty you've come to expect from Sensaphone.

They take the burden out of managing your system by giving you access to your readings from anywhere using a simple, powerful web-based interface and mobile app. If there's a disruption, you'll be the first to know. Alerts can be sent straight to your mobile device—keeping you updated and giving you peace-of-mind wherever you are so you can remain focused on business as usual.

