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.
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 350,000 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.

No Monthly Fees:
Typical security systems charge you a monthly fee, which can add up to several hundred dollars per year. Most Sensaphone products do not have a monthly fee. You buy the product and program it to directly notify anyone you want without the cost of a central service.

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 phone line 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.

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:
Mail: 901 Tryens Road, Aston, PA 19014
Web: www.sensaphone.com
Phone: 877-373-2700
Fax: 610-558-0222
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 give you an understanding on 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.

**Table of Contents**

08 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.

09 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.

09 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.

11 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.

12 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.

13 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.

14 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.

15 HVAC

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone Sentinel</td>
<td>18</td>
</tr>
<tr>
<td>Sensaphone Sentinel with Cellular</td>
<td>20</td>
</tr>
<tr>
<td>Sensaphone CELL682</td>
<td>22</td>
</tr>
<tr>
<td>Sensaphone SAT4D</td>
<td>24</td>
</tr>
<tr>
<td>Sensaphone WEB600</td>
<td>26</td>
</tr>
<tr>
<td>Sensaphone WSG30</td>
<td>28</td>
</tr>
<tr>
<td>Sensaphone 400/800</td>
<td>30</td>
</tr>
<tr>
<td>Sensaphone 1400/1800</td>
<td>32</td>
</tr>
<tr>
<td>Sensaphone Express II</td>
<td>34</td>
</tr>
<tr>
<td>Sensaphone SCADA 3000</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone Monitoring Sensors &amp; Accessories</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Sensors</td>
<td>40</td>
</tr>
<tr>
<td>Humidity Sensors</td>
<td>43</td>
</tr>
<tr>
<td>Water Detection Sensors</td>
<td>44</td>
</tr>
<tr>
<td>Power Sensors</td>
<td>45</td>
</tr>
<tr>
<td>Security Sensors</td>
<td>46</td>
</tr>
<tr>
<td>Air Quality Sensors</td>
<td>47</td>
</tr>
<tr>
<td>Accessories</td>
<td>48</td>
</tr>
<tr>
<td>Wireless Sensors</td>
<td>51</td>
</tr>
</tbody>
</table>

# Sensaphone IMS Monitoring Expansion, Sensors & Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone IMS-1000</td>
<td>54</td>
</tr>
<tr>
<td>Sensaphone IMS-4000</td>
<td>56</td>
</tr>
<tr>
<td>IMS-4000 Node</td>
<td>58</td>
</tr>
<tr>
<td>IMS-4000 Dual Relay Output Module</td>
<td>59</td>
</tr>
<tr>
<td>IMS-4000 Dry Contact Node</td>
<td>59</td>
</tr>
<tr>
<td>IMS Sensors &amp; Accessories</td>
<td>60</td>
</tr>
<tr>
<td>IMS-4000 Wireless Node</td>
<td>66</td>
</tr>
<tr>
<td>IMS-4000 Wireless Node Sensors</td>
<td>67</td>
</tr>
</tbody>
</table>

www.sensaphone.com
<table>
<thead>
<tr>
<th></th>
<th>Sentinel</th>
<th>Sentinel Pro</th>
<th>CELL682</th>
<th>SAT4D</th>
<th>WEB600</th>
<th>WSG-30</th>
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<td></td>
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<td><strong>I/O Expansion</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Sound Level Monitoring</td>
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<tr>
<td>Audit Trails &amp; Reporting</td>
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<th>Inputs</th>
<th>Outputs</th>
<th>Input Type</th>
<th>Outputs</th>
<th>Input Type</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Contact</td>
<td>Thermistor</td>
<td>Modbus</td>
<td>Wireless Sensors</td>
<td>I/O Expansion</td>
<td>Sound Level Monitoring</td>
</tr>
<tr>
<td></td>
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<td>Remote Programming</td>
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<td>Ladder Program/PID</td>
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<td>Pump Control</td>
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<td>Alarm Notifications</td>
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<td></td>
<td>Audit Trails &amp; Reporting</td>
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<td>Mobile App</td>
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<td></td>
<td>Web Status</td>
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<tr>
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<td></td>
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<td></td>
<td>Datalogging</td>
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</tbody>
</table>
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.

**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 external 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
```

STARTER SOLUTION

**Sensaphone IMS-1000**

The Sensaphone IMS-1000 Single Room Monitoring Solution simultaneously monitors network devices and the data center environment to safeguard continuous performance and avoid costly downtime. The IMS-1000 system is a lower-cost, non-expandable version that provides almost all of the same functions as the 4000, but with the needs of smaller facilities in mind. Each IMS-1000 device supports up to eight environmental sensors to monitor critical conditions such as temperature, humidity, smoke, motion, water leaks, intrusion, and power outages.

```
IMS-1002 .......................................................... pg 54
```

**Sensaphone IMS-4000**

The IMS-4000 provides a very modular and expandable remote monitoring solution for a wide area enterprise solution. It is similar to the IMS-1000 with both the Ethernet connection and a phone line connection, but is designed for monitoring multiple locations. The IMS-4000 system is made up of one Host and up to 31 Nodes that can be spread out over a large area. 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-4001 .......................................................... pg 56
IMS-4002 .......................................................... pg 58
IMS-4200 .......................................................... pg 66
```

ADVANCED SENSAPHONE SOLUTIONS

**Sensaphone IMS-1400**

The IMS-1400 system is a cost-effective remote monitoring solution developed specifically for small to medium data centers. The IMS-1400 system is a lower-cost solution compared to the IMS-4000 system and provides similar monitoring capabilities. It is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. The IMS-1400 system can be expanded with additional Nodes to cover larger areas.

```
IMS-1402 .......................................................... pg 54
```

**Sensaphone IMS-4002**

The IMS-4002 system is a non-expandable remote monitoring solution designed for small to medium data centers. It provides similar monitoring capabilities as the IMS-1000 system but at a lower cost. The IMS-4002 system is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. It can be expanded with additional Nodes to cover larger areas.

```
IMS-4002 .......................................................... pg 56
```

**Sensaphone SMS-3000**

The SMS-3000 system is a straightforward, cost-effective remote monitoring solution that is easy to install and use. It is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. The SMS-3000 system is non-expandable and provides a comprehensive overview of your facility’s performance.

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IMS-3002 .......................................................... pg 56
```

**Sensaphone IMS-4200**

The IMS-4200 system is a non-expandable remote monitoring solution designed for small to medium data centers. It provides similar monitoring capabilities as the IMS-1000 system but at a lower cost. The IMS-4200 system is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. It can be expanded with additional Nodes to cover larger areas.

```
IMS-4200 .......................................................... pg 58
```

**Sensaphone SCD-1200**

The SCD-1200 system is a cellular-based remote monitoring solution designed for small to medium data centers. It provides similar monitoring capabilities as the IMS-1000 system but at a lower cost. The SCD-1200 system is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. It can be expanded with additional Nodes to cover larger areas.

```
SCD-1200 .......................................................... pg 18
```

**Sensaphone Sentinel with Cellular Modem**

The Sentinel with Cellular Modem is a cellular-based remote monitoring solution designed for small to medium data centers. It provides similar monitoring capabilities as the IMS-1000 system but at a lower cost. The Sentinel with Cellular Modem is ideal for monitoring environmental conditions such as temperature, humidity, and power failure. It can be expanded with additional Nodes to cover larger areas.

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

**Sensaphone Express II**

The Express II™ system remotely monitors water and wastewater facilities to prevent costly downtime. The system allows for remote monitoring and control of up to 40 different environmental and equipment status conditions 24/7, for up to four conditions. When the system identifies a problem, it can immediately alert up to 48 people with custom phone calls. The Express II system easily integrates with existing floats, pump failure and tank levels and is expandable to include more locations.

```
FGD-6700 .......................................................... pg 56
```

**Sensaphone Express II™**

The Express II™ system remotely monitors water and wastewater facilities to prevent costly downtime. The system allows for remote monitoring and control of up to 40 different environmental and equipment status conditions 24/7, for up to four conditions. When the system identifies a problem, it can immediately alert up to 48 people with custom phone calls. The Express II system easily integrates with existing floats, pump failure and tank levels and is expandable to include more locations.

```
IMS-4001 .......................................................... pg 56
IMS-4002 .......................................................... pg 58
IMS-4200 .......................................................... pg 66
```

**Sensaphone Water Treatment Equipment**

The Sensaphone Water Treatment Equipment system is designed for monitoring equipment status conditions in water and wastewater facilities. The system allows for remote monitoring and control of up to 12 different environmental and equipment status conditions. When the system identifies a problem, it can immediately alert up to 48 people with custom phone calls. The Sentinel system with cellular modem easily integrates with existing equipment.

```
SC-1200 .......................................................... pg 18
```

**Sensaphone FGD-6700**

The FGD-6700 system is designed for monitoring equipment status conditions in water and wastewater facilities. The system allows for remote monitoring and control of up to 12 different environmental and equipment status conditions. When the system identifies a problem, it can immediately alert up to 48 people with custom phone calls. The FGD-6700 system with cellular modem easily integrates with existing equipment.

```
FGD-6700 .......................................................... pg 56
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OVERVIEW

Sensaphone provides a wide variety of solutions available for remote water and wastewater facilities. Products are available to perform anything from simple monitoring and alarm notification, up to data logging, control, and sophisticated SCADA functionality. Whatever level of remote monitoring and control you need, Sensaphone has a solution to keep you informed and in control 24/7.

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.

ADVANCED SENSAPHONE 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 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.

Sensaphone Express II

The Express II™ system remotely monitors water and wastewater facilities to prevent costly downtime. The system is ideal for 24/7 monitoring of conditions such as pump failure and tank levels and 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 Express II system easily integrates with existing floats, pump alarm outputs and level transducers. 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 instructions for easy setup.
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

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.

Application Guides

www.sensaphone.com
Cold Storage

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°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.

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 °F to 115 °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.

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 °F to 168 °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.

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 to view status, make changes and review history. In the event of an alarm, the system can notify users by email, text message or voice phone call.
**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**
- **Humidity**
- **Ventilation**
- **Smoke & Fire**
- **Power Failure**
- **Security**

**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.

**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.

**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.

**PHONE-BASED SENSAPHONE SOLUTIONS**

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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.

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.

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.
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.

### Celluar 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.

**Sensaphone CELL682**

The CELL682 monitors equipment operating at oil and gas wells, refineries and storage facilities to protect valuable assets and avoid costly downtime. Because it communicates via standard cellular networks, 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 notification to up to eight telephone numbers or six email addresses. The CELL682 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 sealed in an enclosure to protect it from harsh conditions.

### 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 notification 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 sealed in an enclosure to protect it from harsh conditions.
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 HVAC 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

WEB–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.

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.

Sensaphone WEB600

The WEB600 can monitor up to six external conditions including temperature from 109°F to 168°F, humidity, power failure and water detection. The device’s built in web server hosts a web page where users can make programming changes, access status conditions and review alarm history and data logs. The system can log up to 100,000 records. In the event of an alarm, the system can notify as many as eight people by email, text message or SNMP trap. An optional battery backup module will ensure the unit will continue to run if main power fails.
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) 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
Sensaphone Sentinel

Cloud-Based Monitoring

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

Add Modbus Capabilities

The Sentinel Pro monitors, delivers alarms, and datalog input/output points the same as the Sentinel, but allows monitoring from third-party Modbus sensors, transducers and programmable logic controllers. The system supports Modbus RTU/485 and Modbus TCP. It also adds an additional relay output.

What’s in the box

- Sentinel
- Screwdriver
- User’s Manual and Documentation
- 12V DC Power Adapter
- 7’ CAT5 Cable

Included Features

- Internal rechargeable battery-backup system will provide 8 hours of continuous monitoring and alerting in the event of a power outage
- Power failure monitoring

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone Sentinel</td>
<td>SCD-1200</td>
</tr>
<tr>
<td>Sensaphone Sentinel in NEMA Enclosure</td>
<td>SCD-1200-SD</td>
</tr>
<tr>
<td>Sensaphone Sentinel Pro</td>
<td>SCD-SPRO</td>
</tr>
<tr>
<td>Sensaphone Sentinel Pro in NEMA Enclosure</td>
<td>SCD-SPRO-SD</td>
</tr>
</tbody>
</table>
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

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

Cloud-Based Monitoring from Anywhere

Sentinel Details

• Easy-to-install, easy-to-configure monitoring solution for locations with no access to a landline or Internet connection
• 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 cellular 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

Add Modbus Capabilities

The Sentinel Pro monitors, delivers alarms, and datalog input/output points the same as the Sentinel, but allows monitoring from third-party Modbus sensors, transducers and programmable logic controllers. The system supports Modbus RTU/485 and Modbus TCP. It also adds an additional relay output.

Cellular Service Provided by North America’s Largest Cellular Networks

Choose between 3G and 4G cellular service provided by AT&T, Verizon, or Rogers for under $30 per month.

What’s in the box

✓ Sentinel with Cellular Modem
✓ Screwdriver
✓ User’s Manual and Documentation
✓ 12V DC Power Adapter

Included Features

✓ Internal rechargeable battery-backup system will provide 8 hours of continuous monitoring and alerting
✓ Power failure monitoring
✓ NEMA-4X enclosure

Product Name

Sensaphone Sentinel with Cellular Service

Part Number

Call for part numbers and options

www.sensaphone.com
Monitoring for the Mobile Age

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

Rugged & Weatherproof

The Sentinel with Cellular Modem comes in a lockable, NEMA 4X enclosure that is suitable for harsh, corrosive environments such as greenhouses or other agricultural applications.

Web–Based Management

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

How it works

Monitor up to 12 inputs

Programming & Access

An amazingly intuitive web-based control panel gives you the freedom to monitor your device from anywhere at anytime.

Alarm Notification

E-mail

Text

Phone Calls

Features & Specifications

**Communication Method:** Cellular

**Number of Inputs:** 12 digital or analog (Sentinel Pro polls up to 64 Modbus registers)

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

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

**Output Relay:** Sentinel: One low voltage outputs

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

**Output Relay:** Sentinel Pro: Two low voltage outputs

**Local Access:** LEDs for Alarm Status, Power Status, and Cellular 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

**Physical:** 14 x 12 x 7.4" | 355 x 304 x 188mm

12lbs. | 5.4kg

**Warranty:** 2 Years
Sensaphone CELL682
Remote Monitoring via Cellular

**CELL682 Details**
- Ideal for remote, unmanned facilities where telephone or Ethernet lines are not available
- Access status information and make programming changes via web page
- Receive voice alerts and alarm notifications over standard cellular networks
- Notifies up to 24 people by any combination of voice phone call, e-mail, or text message in the event of an alarm
- Includes 14 total inputs; with eight dry contact/six analog (temperature or 4-20mA) connections
- Two included relay outputs can switch local devices on/off based on alarm activity
- Machine-to-machine control among CELL682 units and pump control
- Activation of a wireless messaging plan required. Choose between Verizon, AT&T and Rogers

**Antennas**
An external antenna (FGD-CELL-ANT) allows you to place your CELL682 in a location that would normally have reduced signal contact such as in a metal cabinet. A high gain antenna (FGD-CELL-HGANT) is available to increase cell signal strength.

**Enclosure Options**
The Sensaphone CELL682 comes in sealed, weatherproof, lockable enclosures making it suitable for harsh or corrosive environments. It is available with a clear door (as shown) or a solid door.

**What’s in the box**
- CELL682
- Screwdriver
- Mounting Hardware
- User’s Manual

**Included Features**
- Internal rechargeable battery-backup system provides 12 hours of continuous monitoring and alerts
- Power failure monitoring

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**Product Name**
Sensaphone CELL682

**Part Number**
See page 23 for options

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**Web Interface**
The CELL682 provides status, history, alarm response programming, and manual output control.

**Versatile Control**
It can perform simplex or duplex alternating pump control using a level transducer or float switches. The unit can also perform machine-to-machine control among multiple Cell682 devices.

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**Enclosure Options**
- **Antennas**
  - FGD-CELL-ANT: External antenna
  - FGD-CELL-HGANT: High gain antenna

- **Enclosures**
  - Clear door
  - Solid door

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**Cellular Communication**
Programming & Access Available from any web enabled device

**Alarm Notification**
- 24 alarm destinations - any combination of e-mail, text message, or custom voice phone calls

**Communication Method**
- Cellular

**Number of Inputs**
- Total: 14
  - 6 Analog (Temperature & 4-20mA)
  - 8 Dry Contact

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

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

**Local Access**
- LEDs to show alarm status, registration, wireless signal, battery backup status, power status, and output states

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**Physical**
- Dimensions: 12 x 8 x 6" | 305 x 203 x 152mm
- Weight: 8lbs | 2.7kg

**Operating Conditions**
- -22° to 140°F | -30° to 60°C

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**Part Numbers**
- FGD-C682-3GATCD - AT&T cellular service and a clear door
- FGD-C682-3GATSD - AT&T cellular service and a solid door
- FGD-C682-3GRWCD - Rogers cellular service and a clear door
- FGD-C682-3GRWSD - Rogers cellular service and a solid door
- FGD-C682-VZWCD - Verizon cellular service and a clear door
- FGD-C682-VZWSD - Verizon cellular service and a solid door

**Warranty**
- 2 Years
No Land Lines Required

Since the CELL682 requires no phone lines, it can be placed in remote locations that can be inconvenient or difficult to gain access to phone or internet service.

Web Interface

The CELL682 provides status, history, alarm response programming, and manual output control.

Versatile Control

It can perform simplex or duplex alternating pump control using a level transducer or float switches. The unit can also perform machine-to-machine control among multiple Cell682 devices.

How it works

Monitor up to 14 total inputs

(6 analog | 8 Dry Contact)

Programming & Access

Available from any web enabled device

Alarm Notification

E-mail

Text

Phone Calls

Machine-to-Machine

control among CELL682 units and pump control

Features & Specifications

Communication Method: Cellular

Number of Inputs: 14 Total: 6 Analog (Temperature & 4-20mA), 8 Dry Contact and Run time

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

Remote Access: Website to access status and programming

Local Access: LEDs to show alarm status, registration, wireless signal, battery backup status, power status, and output states

Alarm Notification: 24 alarm destinations - any combination of e-mail, text message, or custom voice phone calls

Physical: 12 x 8 x 6” | 305 x 203 x 152mm

8lbs | 2.7kg

Operating Conditions: -22° to 140°F | -30° to 60°C

Part Numbers:

FGD-C682-3GATCD - AT&T cellular service and a clear door
FGD-C682-3GATSD - AT&T cellular service and a solid door
FGD-C682-3GRWCD - Rogers cellular service and a clear door
FGD-C682-3GRWSD - Rogers cellular service and a clear door
FGD-C682-VZWCD - Verizon cellular service and a clear door
FGD-C682-VZWSD - Verizon cellular service and a solid door

Warranty: 2 Years
Sensaphone SAT4D

Remote Monitoring via Satellite

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
- Screwdriver
- 4 AA 1.5V Lithium Battery
- 1 AA 3.6 Lithium Battery
- User’s Manual and Documentation

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

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone SAT4D</td>
<td>FGD-SAT4D</td>
</tr>
<tr>
<td>Sensaphone SAT4D Pole Mount Kit</td>
<td>FGD-SAT4D-PKIT</td>
</tr>
</tbody>
</table>
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

Monitor up to 4 Dry Contact inputs

- Contact

Alarm Notification

- E-mail
- Text
- Phone Calls

Programming & Access

Manage multiple devices from any web enabled device

Geolocation

GPS technology pinpoints exactly where the device is located

Features & Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Method</td>
<td>Satellite</td>
</tr>
<tr>
<td>Number of Inputs</td>
<td>4</td>
</tr>
<tr>
<td>Input Types</td>
<td>Contact</td>
</tr>
<tr>
<td>Remote Access</td>
<td>Website to access status and programming</td>
</tr>
<tr>
<td>Alarm Notification</td>
<td>6 e-mails or text messages, 8 phone calls</td>
</tr>
<tr>
<td>Physical</td>
<td>11.3 x 13.3 x 5.8&quot;</td>
</tr>
<tr>
<td></td>
<td>7.4lbs</td>
</tr>
<tr>
<td>Standards</td>
<td>UL913 Class I, Div I</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Satellite transmitter battery: 4 AA lithium batteries</td>
</tr>
<tr>
<td></td>
<td>3 year battery life</td>
</tr>
<tr>
<td>Satellite input battery</td>
<td>1 AA lithium battery</td>
</tr>
<tr>
<td></td>
<td>7 year battery life</td>
</tr>
<tr>
<td>Operating Conditions</td>
<td>-22° to 140°F</td>
</tr>
<tr>
<td></td>
<td>-40° to 176°F</td>
</tr>
<tr>
<td>Warranty</td>
<td>1 Year</td>
</tr>
</tbody>
</table>
Sensaphone WEB600
Low Cost Web Based Monitoring

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

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

Communication Method: Ethernet
Number of Inputs: 6
Input Types: Contact, 2.8K, 10K, 4-20mA
Temperature Sensing Range: -109° to 168°F | -85° to 76°C
Output Relay: 1 Low voltage NO/NC relay output
Manual or automatic alarm switching
Remote Access: Website to access status and programming
Local Access: LEDs for Alarm Status, Power Status, and Ethernet link
Alarm Notification: 32 alarm destinations - any combination of e-mail, text message, or SNMP traps
8 alarm escalation levels with comprehensive scheduling per input profile and alarm destination
Data Logging: 100,000 samples (include data, date and time)
Physical: 5.5 x 3.25 x 1.25” | 140 x 83 x 32mm
Format: .5lbs | .22kg
Warranty: 1 Year
**WSG30 Details**

- An easy solution to web-based monitoring ideal for applications where running wires can be difficult
- Connect up to 30 wireless sensors sensors wherever you need
- 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
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 51.

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

Monitor up to 30 wireless sensors

Alarm Notification

E-mail

Text

SNMP Traps

Programming & Access

The WSG30 includes a built-in web server. Just browse to its web page for all programming, configuration and access to current status. Alarm history and datalogging can be accessed through the web interface.

Features & Specifications

Communication Method: Ethernet

Number of Inputs: 30 wireless sensors

Input Types: WSG30 Wireless (Temperature, Humidity, Dry Contact, 4-20mA, Water Detection, Power Failure)

Temperature Sensing Range: -109° to 115°F | -85° to 57°C

Remote Access: Website to access status and programming

Local Access: 4 line LCD display and keypad

Alarm Notification: 32 e-mail and/or text messages, SNMP trap, Modbus

Data Logging: 67,000 time stamped records

Physical: 7.36 x 5.1 x 2” | 190 x 130 x 50mm

2.5lbs | 1.3kg

Warranty: 1 Year
Sensaphone 400 & 800

Basic Phone Notification

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

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensaphone 400</td>
<td>FGD-0400</td>
</tr>
<tr>
<td>Sensaphone 800</td>
<td>FGD-0800</td>
</tr>
</tbody>
</table>

✓ What’s in the box
✓ Included Features
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

Monitor up to 4 or 8 inputs

2.8K

Contact

Temperature Sensing Range:

-20° to 150°F | -30° to 65°C

Output Relay:

1 Low voltage NO/NC relay output
Manual or automatic alarm switching

Remote Access:

Call in to check status and make programming changes, microphone for listen in status

Features & Specifications

Communication Method: Phone Line

Number of Inputs: 4 / 8

Input Types: Contact, 2.8K

Temperature Sensing Range: -20° to 150°F | -30° to 65°C

Output Relay: 1 Low voltage NO/NC relay output Manual or automatic alarm switching

Remote Access: Call in to check status and make programming changes, microphone for listen in status

Local Access: Keypad and speaker for local programming, easy voice prompted programming, keypad lock, and LEDs

Alarm Notification: 4 or 8 custom voice phone calls

Physical: 2.1 x 7.8 x 8.8” | 53 x 198 x 223mm 2lbs | .9kg

Warranty: 1 Year
Sensaphone 1400 & 1800

Rugged Professional Phone Notification

1400 & 1800 Details

- Simple, convenient, cost-effective remote monitoring ideal for greenhouse and agriculture applications
- Rugged, weatherproof NEMA-4X enclosure protects 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

**Monitor up to 4 or 8 inputs**

**Phone line**

**Control 1 output**

**Custom Voice Phone Calls**

When the system identifies a problem, it can immediately notify 8 people with custom voice calls.

**Status Reports & Remote Programming**

Call the device to hear the status reports. These messages read the status of alarm conditions, AC power, battery backup and sound level. They also provide time to listen to on-site sounds and the ability to make programming changes.

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### Features & Specifications

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

**What’s in the box**

- Included Features
  - Phone line
  - Monitor up to 4 or 8 inputs
  - Control 1 output
  - Custom Voice Phone Calls
  - Status Reports & Remote Programming
  - Communication Method: Phone Line
  - Number of Inputs: 4 / 8
  - Input Types: Contact, 2.8K, 10K, 4-20mA
  - Temperature Sensing Range: -109° to 168°F | -85° to 76°C
  - Output Relay: One universal output relay
  - Manual or automatic alarm switching
  - Remote Access: Call in to check status and make programming changes, microphone for listen in status
  - Local Access: Keypad and speaker for local programming, easy voice prompted programming, keypad lock, recent alarm history playback, and LEDs
  - Alarm Notification: 4 or 8 custom voice phone calls
  - Physical: 1400: 12.1 x 7.3 x 4.5” | 53 x 198 x 223mm
  - 1800: 12.1 x 8 x 5.5” | 53 x 203 x 140
  - Warranty: 1400 - 2 Years | 1800 - 3 Years

**Internal battery-backup system provides 16 hours of continuous monitoring and alerts**

**Microphone for on-site listen-in (w/optional external mic)**

**Included Features**

- 2.8K Temperature Probe
- AC Power Adapter
- 14 AWG Grounding Cable
- Telephone Cable
- Mounting hardware
- User’s Manual
- Screwdriver

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www.sensaphone.com
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
- Screwdriver
- AC Power Adapter
- Telephone Cable
- Mounting hardware
- User’s Manual and Documentation

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
Part Number: FGD-6700

www.sensaphone.com
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°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

Monitor up to 40 inputs

Custom Voice Phone Calls

When the system identifies a problem, it can immediately notify all people with custom voice calls.

Status Reports & Remote Programming

Call the device to hear live status reports. These messages read the status of alarm conditions, AC power, battery backup and sound level. They also provide time to listen to on-site sounds and the ability to make programming changes.

Features & Specifications

Communication Method: Phone Line
Number of Inputs: 8 standard, expandable to 40
Input Types: Contact, 2.8K, 10K, 4-20mA
Temperature Sensing Range: -85° to 300°F | -65° to 149°C
Output Relay: One output relay standard, expandable to 17 total
Remote Access: Call in to check status and make programming changes

Local Access: Keypad for viewing status, four line LCD display, LEDs
Alarm Notification: 48 custom voice phone calls
Physical: 14.5 x 13 x 8.3” | 368 x 330 x 210mm
18lbs | 8.1kg
Warranty: 1 Year

* Requires subscription

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

Control up to 16 outputs

Custom Voice Phone Calls

When the system identifies a problem, it can immediately notify 48 people with custom voice calls.

Status Reports & Remote Programming

Call the device to hear live status reports. These messages read the status of alarm conditions, AC power, battery backup and sound level. They also provide time to listen to on-site sounds and the ability to make programming changes.

Communication Method: Phone Line
Number of Inputs: 8 standard, expandable to 40
Input Types: Contact, 2.8K, 10K, 4-20mA
Temperature Sensing Range: -85° to 300°F | -65° to 149°C
Output Relay: One output relay standard, expandable to 17 total
Remote Access: Call in to check status and make programming changes

Local Access: Keypad for viewing status, four line LCD display, LEDs
Alarm Notification: 48 custom voice phone calls
Physical: 14.5 x 13 x 8.3” | 368 x 330 x 210mm
18lbs | 8.1kg
Warranty: 1 Year

* Requires subscription

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

Control up to 16 outputs

Customer Voice Phone Calls

When the system identifies a problem, it can immediately notify all people with custom voice calls.

Status Reports & Remote Programming

Call the device to hear live status reports. These messages read the status of alarm conditions, AC power, battery backup and sound level. They also provide time to listen to on-site sounds and the ability to make programming changes.

Communication Method: Phone Line
Number of Inputs: 8 standard, expandable to 40
Input Types: Contact, 2.8K, 10K, 4-20mA
Temperature Sensing Range: -85° to 300°F | -65° to 149°C
Output Relay: One output relay standard, expandable to 17 total
Remote Access: Call in to check status and make programming changes

Local Access: Keypad for viewing status, four line LCD display, LEDs
Alarm Notification: 48 custom voice phone calls
Physical: 14.5 x 13 x 8.3” | 368 x 330 x 210mm
18lbs | 8.1kg
Warranty: 1 Year

* Requires subscription

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

Control up to 16 outputs

Custom Voice Phone Calls

When the system identifies a problem, it can immediately notify all people with custom voice calls.

Status Reports & Remote Programming

Call the device to hear live status reports. These messages read the status of alarm conditions, AC power, battery backup and sound level. They also provide time to listen to on-site sounds and the ability to make programming changes.
Sensaphone SCADA 3000

Industrial Monitoring

SCADA3000 Details

• Ideal for monitoring facilities with expanding needs
• Windows® software with integrated Ladder/C compilers and real-time HMI design
• Expansion modules include relay/analog output, universal input, and pulse count
• Communicates through RS-232, radio, and phone lines
• Notifies up to 64 contacts by phone, e-mail, text, fax, or pager
• Control, monitoring, and data collection in a single system
• Generate automatic custom reports daily to your e-mail or fax
• Expandable up to 144 I/O points with control logic
• Data-logging capability allows for up to 50,000 time-stamped records

Expansion Options

Expansion modules are available to add specialized inputs such as high speed pulse counters, or simply additional universal inputs. Outputs can be expanded to add more relay channels, or 4-20mA analog output channels. You can add modules to the Sensaphone SCADA 3000 and keep expanding up to a total of 144 I/O points. For more information see page 50.

What’s in the box
✓ SCADA3000 ✓ Screwdriver
✓ Serial Cable ✓ Telephone Cable
✓ Software CD ✓ Mounting hardware
✓ User’s Manual and Documentation

Included Features
✓ 16 input channels as standard, expandable to 136 in total
✓ Eight output channels as standard, expandable to 128 in total
✓ Power failure monitoring
✓ No monthly fees
16 Inputs, 8 Outputs Standard

The 16 universal inputs and eight relay outputs come standard. The inputs can accept contact type sensors, 4-20mA transducers, 0-5 Volt sensors, and any 10K type sensor.

Free HMI Software

The SCADA 3000 comes with free software, a significant cost benefit, as no high cost third party software must be purchased and installed.

Powerful Programming

The included software lets you program units, develop ladder and C-programs, retrieve data, analyze event logs and print a variety of reports.

How it works

Communication Method: Phone Line

Number of Inputs: 16 standard, expandable to 136

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

Temperature Sensing Range: -100° to 300°F | -65° to 150°C

Output Relay: Eight output relays standard, expandable to 128 total

Remote Access: Call in to check status and make programming changes via dialup modem

Local Access: Keypad for viewing status, four line LCD display, LEDs

Alarm Notification: 64 custom voice phone calls

Data Logging: 50,000 time stamped records

Physical: 9.4 x 12.2 x 2” | 239 x 310 x 51mm

Warranty: 3 Years
Pressure Sensor

Differential Pressure Sensor

RTD Probe w/ 4-20mA Transmitter

Temperature Sensor Recalibrations

Custom Temperature Sensor Calibrations

www.sensaphone.com

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.

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 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.

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 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.

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

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.

Custom Temperature Sensor Calibrations

A Sensaphone temperature sensor with NIST calibration consists of three temperature points: -15°C, 0°C, and 25°C. 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 -30°C (-22°F) to 55°C (131°F) can be specified for a custom calibration.
New Sensors & Accessories

- **Pressure Sensor**
  
  Receive alarms and datalog pressure values

  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.

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

- **Soil Moisture Sensor**

  Research grade soil moisture accuracy

  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.

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

- **Vibration Sensor**

  Monitor the overall vibration of equipment

  Vibration on industrial equipment can be continuously monitored for unusual operating conditions and potential failure. 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.

  4-20mA Vibration Sensor . . . . . . . . . . . . . . . . . . . . FGD-0303
  Magnetic Mount Foot . . . . . . . . . . . . . . . . . . . . FGD-0303-MOUNT

- **Differential Pressure Sensor**

  Measure static or differential pressures

  A universal design monitors differential or static pressures in commercial buildings, these sensors offer exceptional job-site flexibility. Excellent tolerance to overpressure and vibration reduces field failures. High accuracy digital sensor maintains calibration and reduces callbacks. The sensors monitor positive and negative pressure for application versatility and the LCD is ideal for set-up, troubleshooting, and measuring. Also available with a duct and wall mount kit.

  4-20mA Differential Pressure Sensor . . . . . . . . . . . FGD-0302

- **Ethernet to WiFi Adapter**

  Add WiFi connectivity to a network Sensaphone

  The Ethernet to WiFi Adapter is a high-speed, long-range outdoor wireless bridge that is an ideal solution for adding Wi-Fi connectivity to any network based Sensaphone. This is a cost effective solution when faced with running communication cable or trenching long runs of alarm wire to the Sensaphone. The device also features a weatherproof housing that ensures continued operation in harsh outdoor environments.

  Ethernet to WiFi Adapter . . . . . . . . . . . . . . . . . . . . FGD-0250

- **RTD Probe w/4-20mA Transmitter**

  Measure extreme temperatures

  The RTD probe with 4-20mA transmitter can be used to measure the temperature in extreme environments. Part number FGD-0240 is calibrated to operate over the range -200° to 35°C. Part number FGD-0240-SPEC 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)

  RTD Probe w/ Transmitter (-200° to 35°C) . . . . . . . . . FGD-0240
  RTD Probe w/ Transmitter w/ Custom Range . . . . . . . FGD-0240-SPEC

www.sensaphone.com
# Sensaphone Temperature Sensors

## 2.8K Room Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>0° to 120°F</th>
<th>-17° to 49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±1°F</td>
<td>±.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>2.8K Series</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Not for outdoor use</td>
<td></td>
</tr>
</tbody>
</table>

This sensor will measure and report the exact temperature back to the Sensaphone. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. This model is recommended to be located in clean, dry environment. For outdoor use model FGD-0101 is recommended.

**Part Name**

2.8K Type Room Temperature Sensor

**Part Number**

FDG-0100

## 2.8K Weatherproof Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-20° to 176°F</th>
<th>-28° to 80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±1°F</td>
<td>±.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>2.8K Series</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Available with NIST Certification</td>
<td></td>
</tr>
</tbody>
</table>

This sensor will measure and report the exact temperature 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.

**Part Name**

2.8K Type Weatherproof Temperature Sensor

**Part Number**

FDG-0101

2.8K Type Weatherproof Temperature Sensor & NIST

**Part Number**

FDG-0101-NIST

## 2.8K Ultra Low Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-121° to 176°F</th>
<th>-85° to 140°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±1°F</td>
<td>±.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>2.8K Series</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Available with NIST Certification</td>
<td></td>
</tr>
</tbody>
</table>

When monitored temperatures dip below -20°F all other temperature sensors simply won’t suffice. This sensor offers reliable temperature monitoring down to -85°C. It’s a perfect fit for many applications where traditional temperature sensors have failed. Includes 12’ | 3.6m of cable.

**Part Name**

2.8K Ultra Low Temperature Sensor

**Part Number**

FDG-0101-TEF

2.8K Ultra Low Temperature Sensor & NIST

**Part Number**

FDG-0101-TEF-NIST

## Temp Alert Temperature Switch

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-30° to 130°F</th>
<th>-34° to 54°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±3°F</td>
<td>±1.7°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.3 x 3.3 x 2”</td>
<td>158 x 83 x 50mm</td>
</tr>
</tbody>
</table>

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.

**Part Name**

Contact Type Temp Alert Temperature Switch

**Part Number**

FDG-0022
### 2.8K Temperature Sensor in Glass Bead Vial

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-20° to 176°F</th>
<th>-28° to 80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 1°F</td>
<td>± 0.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>2.8K Series</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Available with NIST Certification</td>
<td></td>
</tr>
</tbody>
</table>

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.

**Part Name**
- 2.8K Type Temperature Sensor in Glass Bead Vial
- 2.8K Type Temperature Sensor in Glass Bead Vial & NIST

**Part Number**
- FGD-0107
- FGD-0107-NIST

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

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-121° to 176°F</th>
<th>-85° to 140°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 1°F</td>
<td>± 0.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>2.8K Series</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Available with NIST Certification</td>
<td></td>
</tr>
</tbody>
</table>

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 ultra low temperature sensor probe is able to monitor temperatures down to -85°C. Includes 12’ | 3.6m of cable.

**Part Name**
- 2.8K Ultra Low Temperature Sensor in Glass Bead Vial
- 2.8K Ultra Low Temperature Sensor & NIST in Glass Bead Vial

**Part Number**
- FGD-0107-TEF
- FGD-0107-TEF-NIST

### Temp Alert Temperature Switch

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-30° to 130°F</th>
<th>-34° to 54°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 3°F</td>
<td>± 1.7°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.3 x 3.3 x 2&quot;</td>
<td>158 x 83 x 50mm</td>
</tr>
</tbody>
</table>

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.

**Part Name**
- Contact Type Temp Alert Temperature Switch

**Part Number**
- FGD-0022
Sensaphone Temperature Sensors

10K Weatherproof Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-20° to 176°F</th>
<th>-28° to 80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 1°F</td>
<td>± 0.56°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>10K Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>12' of wire</td>
<td>3.5m</td>
</tr>
</tbody>
</table>

This sensor enables monitoring temperatures at a location away from a Sensaphone unit. It will measure and report the exact temperature 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.

Part Name: 10K Type Weatherproof Temperature Sensor
Part Number: FGD-0102

Indoor Decorator Zone Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>35° to 140°F</th>
<th>2° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 0.36°F</td>
<td>± 0.2°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>10K Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.3 x 3.3 x 2”</td>
<td>158 x 83 x 50mm</td>
</tr>
</tbody>
</table>

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.

Part Name: 10K Type Indoor Decorator Zone Temperature Sensor
Part Number: FGD-0103

Outdoor Air Temperature Sensor

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>-30° to 140°F</th>
<th>-34° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 0.36°F</td>
<td>± 0.2°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>10K Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.3 x 3.3 x 2”</td>
<td>158 x 83 x 50mm</td>
</tr>
</tbody>
</table>

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.

Part Name: 10K Type Outdoor Air Temperature Sensor
Part Number: FGD-0104
**Immersion Temperature Sensor**

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>10° to 230°F</th>
<th>-34° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± .36°F</td>
<td>± 2°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>10K Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Thermowell: 5.2”</td>
<td>130mm</td>
</tr>
</tbody>
</table>

This sensor measures the temperature of fluids inside a pipe. 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.

**Part Name**  
10K Type Immersion Temperature Sensor  
**Part Number**  
FGD-0105

**Sensaphone Humidity Sensors**

**Humidistat Humidity Switch**

<table>
<thead>
<tr>
<th>Operating Temperature Range</th>
<th>32° to 95°F</th>
<th>0° to 35°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>10 to 80%</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.75 x 5.25 x 1.6”</td>
<td>70 x 133 x 41mm</td>
</tr>
</tbody>
</table>

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.

**Part Name**  
Contact Type Humidistat Humidity Switch  
**Part Number**  
FGD-0027

**Humidity Sensor**

<table>
<thead>
<tr>
<th>Operating Temperature Range</th>
<th>32° to 122°F</th>
<th>0° to 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 3% from 10 to 95% RH</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>4-20mA Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.8 x 4.5 x 1.2”</td>
<td>70 x 114 x 29mm</td>
</tr>
</tbody>
</table>

This sensor is a space mount, low profile humidity transducer that transmits actual humidity levels to a Sensaphone for programmable high and low alarm limits. The device can be used with any Sensaphone that supports 4-20mA inputs. A 24V DC power supply (FGD-0070) is required.

**Part Name**  
4-20mA Humidity Sensor  
**Part Number**  
FGD-0052
Sensaphone Water Detection Sensors

**Spot Water Detection Sensor**

<table>
<thead>
<tr>
<th>Connection</th>
<th>Hardwired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Black plastic</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.2 x 1.3 x 3.6&quot;</td>
</tr>
</tbody>
</table>

This water detection sensor can be used with all Sensaphone models to detect the presence of water on a horizontal surface. 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.

**Part Name**
Contact Type Spot Water Detection Sensor  
**Part Number**  
FGD-0013

**Zone Water Detection Sensor**

<table>
<thead>
<tr>
<th>Connection</th>
<th>Hardwired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Black plastic</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5.5 x 3.3 x 1.4&quot;</td>
</tr>
</tbody>
</table>

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.

**Part Name**
Contact Type Zone Water Detection Sensor  
**Part Number**  
FGD-0056

Water Rope Extension for Zone Water Detection Sensor  
**Part Number**  
FGD-0063

**Float Level Switch**

<table>
<thead>
<tr>
<th>Operating Temperature Range</th>
<th>-10° to 80°F</th>
<th>-23° to 26°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Black plastic</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>3.5 x 1.5”</td>
<td>89 x 38mm</td>
</tr>
</tbody>
</table>

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.

**Part Name**
Contact Type Float Level Switch  
**Part Number**  
FGD-0222
Sensaphone Power Sensors

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Backup Duration</td>
<td>Up to 8 hours</td>
</tr>
<tr>
<td>Power</td>
<td>24V / 40mA will power two devices</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Accessory Series</td>
</tr>
<tr>
<td>Dimensions</td>
<td>7.5 x 3.6 x 1.2”</td>
</tr>
</tbody>
</table>

When using a 4-20mA transducer with a Sensaphone, an external power supply is required. This 4-20mA Power Supply provides power for two transducers and provides up to eight hours of battery backup if main power fails.

**Part Name**
24VDC Power Supply for 4-20mA Sensors with Battery Backup ........................................ FGD-0070

---

### 24VDC Power Supply for 4-20mA Sensors

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>24V / 250mA</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Accessory Series</td>
</tr>
</tbody>
</table>

When using a 4-20mA transducer with a Sensaphone, an external power supply is required. FGD-0053 will provide 24V power to one transducer.

**Part Name**
24VDC Power Supply for 4-20mA Sensors ........................................ FGD-0053

---

### PowerOut Alert Power Failure Switch

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>40° to 100°F</td>
</tr>
<tr>
<td>Time Delay</td>
<td>3 to 8 minutes</td>
</tr>
<tr>
<td>Contact Rating</td>
<td>.5 Amp @ 30V</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>Contact Series</td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.3 x 3 x 2”</td>
</tr>
</tbody>
</table>

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.

**Part Name**
Contact Type PowerOut Alert Power Failure Switch ........................................ FGD-0054
Sensaphone Security Sensors

### Smoke Detector for 110VAC

<table>
<thead>
<tr>
<th><strong>Sensor Temperature Range</strong></th>
<th>40° to 100°F</th>
<th>4° to 37°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection</strong></td>
<td>Hardwired</td>
<td></td>
</tr>
<tr>
<td><strong>Sensor Series</strong></td>
<td>Contact Series</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>6.5&quot; diameter x 2.6&quot;</td>
<td>72mm x 40mm</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th><strong>Part Name</strong></th>
<th><strong>Part Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Type Smoke Detector for 110VAC w/ Battery Backup</td>
<td>FGD-0049-B</td>
</tr>
<tr>
<td>Contact Type Smoke Detector for 220VAC</td>
<td>FGD-0049-220V</td>
</tr>
</tbody>
</table>

### Infrared Motion Detection Sensor

<table>
<thead>
<tr>
<th><strong>Range</strong></th>
<th>Approximately 40'</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Battery Life</strong></td>
<td>3 to 5 years</td>
</tr>
<tr>
<td><strong>Sensor Series</strong></td>
<td>Contact Series</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>4 x 6 x 1.5&quot;</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th><strong>Part Name</strong></th>
<th><strong>Part Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Type Infrared Motion Detection Sensor</td>
<td>FGD-0007</td>
</tr>
</tbody>
</table>

### Magnetic Reed Door & Window Switch

<table>
<thead>
<tr>
<th><strong>Connection</strong></th>
<th>Hardwired</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing</strong></td>
<td>Plastic</td>
</tr>
<tr>
<td><strong>Sensor Series</strong></td>
<td>Contact Series</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>2.5 x .75 x .5&quot;</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th><strong>Part Name</strong></th>
<th><strong>Part Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Type Magnetic Reed Door &amp; Window Switch</td>
<td>FGD-0006</td>
</tr>
</tbody>
</table>

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46 www.sensaphone.com
Sensaphone Security Sensors

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.

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.

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke Detector for 110VAC w/ Battery Backup</td>
<td>FGD-0049-B</td>
</tr>
<tr>
<td>Smoke Detector for 220VAC</td>
<td>FGD-0049-220V</td>
</tr>
<tr>
<td>Infrared Motion Detection Sensor</td>
<td>FGD-0007</td>
</tr>
<tr>
<td>Magnetic Reed Door &amp; Window Switch</td>
<td>FGD-0006</td>
</tr>
</tbody>
</table>

Sensaphone Air Quality Sensors

The Sensaphone Carbon Dioxide sensor will monitor levels of Carbon Dioxide from 0-2,000ppm with any Sensaphone that will accept a 4-20mA input signal. The sensor will need a 24VDC power supply to operate (Part # FGD-0070).

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).

The Sensaphone Indoor Air Quality Sensor will monitor levels of pollution from 0–100% with any Sensaphone that will accept a 4-20mA signal. Popular applications include schoolrooms, office buildings, and parking garages. Air contaminants can include cigarette smoke, cooking exhaust, automobile exhaust, solvents, and many others. The sensor will require a 24VDC power supply to operate. (Part # FGD-0070)

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂) Sensor</td>
<td>FGD-0068</td>
</tr>
<tr>
<td>Carbon Monoxide (CO) Sensor</td>
<td>FGD-0065</td>
</tr>
<tr>
<td>Air Quality Sensor</td>
<td>FGD-0066</td>
</tr>
</tbody>
</table>
Sensaphone Accessories

- **Multi-Point Wireless I/O Accessory**
  The Multi-Point Wireless I/O System is ideal for connecting dry contacts and/or a 4-20mA transducer to a Sensaphone that is too far (or too expensive) to run cable. The system will replicate these sensors up to a distance of 600’ indoors or up to four miles line of site (flat terrain, raised antennas). The system includes a matched 1 Watt 900MHz transmitter and receiver. Two 24V power supplies and omni-directional antennas are included.

Part Name | Part Number
--- | ---
Multi-Point Wireless I/O Accessory | FGD-0205

- **Dual Setback Thermostat**
  For use exclusively with the Sensaphone 400 and 800, this is a “setback” thermostat with an LCD readout. It lets you enter the desired setpoint for both your “away” and “home” temperatures. A control signal, sent from your Sensaphone, switches between these two settings. Requires 12V power supply (XFR-0024)

Part Name | Part Number
--- | ---
Dual Setback Thermostat | FGD-0064

- **Surge Suppressor for Power & Phone**
  This surge suppressor offers complete AC and phone line surge suppression. The retractable plug prevents scratching of expensive portable electronics. A set of two RJ11 telephone line suppression jacks protect dialup and voice/modem lines. The suppressor offers two total outlets in a space saving direct plug-in format and diagnostic LEDs to warn of problems.

Part Name | Part Number
--- | ---
Surge Suppressor for Power & Phone | FGD-0067

- **Serial-to-Ethernet Device Server**
  The Serial-to-Ethernet Device Server allows you to access your Sensaphone SCADA 3000 anywhere on a local LAN or the Internet. Simply connect the device to the serial port on your Sensaphone and connect the Ethernet jack to your network. The software included with the device server will route your computer’s serial port to the network-connected device server, thus establishing a fast, direct connection to your Sensaphone.

Part Name | Part Number
--- | ---
Serial-to-Ethernet Device Server | FGD-0300
**Sensaphone Water Quality Sensors**

### Conductivity Sensor

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Measuring Range</th>
<th>Temperature Compensation</th>
<th>Pressure/Temperature Limits</th>
<th>Sensor Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toroidal</td>
<td>0-10mS/cm, 0-100mS/cm, or 0-1,000mS/cm</td>
<td>Pt 100 RTD</td>
<td>50 psi at 40°C</td>
<td>4-20mA Series</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-20mA Type Toroidal Conductivity Sensor</td>
<td>FGD-0320</td>
</tr>
</tbody>
</table>

### Oxidation-Reduction Potential (ORP) Sensor

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Measuring Range</th>
<th>Sensitivity</th>
<th>Saltbridge</th>
<th>Sensor Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORP</td>
<td>0 to 1000 mV or -500 to +500 mV</td>
<td>&lt;0.5 mV</td>
<td>Replaceable for extended service life</td>
<td>4-20mA Series</td>
</tr>
</tbody>
</table>

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 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).

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-20mA Type ORP Sensor</td>
<td>FGD-0315</td>
</tr>
</tbody>
</table>

### 4-20mA Type pH Sensor

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Measuring Range</th>
<th>Sensitivity</th>
<th>Saltbridge</th>
<th>Sensor Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>0 to 14pH</td>
<td>&lt;0.005 pH</td>
<td>Replaceable for extended service life</td>
<td>4-20mA Series</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-20mA pH Sensor</td>
<td>FGD-0305</td>
</tr>
</tbody>
</table>
### Sensaphone SCADA 3000 Accessories

#### SCADA 3000 Universal Input Expansion Module

The SCADA 3000 Universal Input Module is an optional component for use with the SCADA 3000 system. The input channels are identical to those included on the SCADA 3000 main unit. The Universal Input Module features eight channels that can be configured to interface with several different types of sensors and transducers, including: Normally Open/Normally Closed dry contacts, digital logic, run time accumulation, 0–5V analog, 4–20mA analog and 10K thermistor (ºC & ºF).

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA 3000 Universal Input Expansion Module</td>
<td>FGD-3010</td>
</tr>
</tbody>
</table>

#### SCADA 3000 Pulse Count Module

The SCADA 3000 Pulse Count Module features four totalizing pulse count channels and four virtual channels that can be programmed to calculate various rates or to display count overflow. The four pulse count channels are capable of counting pulses at a rate of up to 10,000 pulses per second (10KHz). Each channel will totalize pulses up to one million and then reset to zero. The four virtual channels can be programmed to calculate the pulse as either pulses per second, pulses per minute, or pulses per hour.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA 3000 Pulse Count Module</td>
<td>FGD-3020</td>
</tr>
</tbody>
</table>

#### SCADA 3000 Relay Output Module

The SCADA 3000 Relay Output Module is an optional component for use with the SCADA 3000 system. The output channels are identical to those included on the SCADA 3000 main unit. The Relay Output Module features eight latching relay outputs that can be used to switch equipment on and off. The relays are rated at 2 Amps at 125VAC and have integral contact protection. They may be controlled manually or automatically via a ladder program or C-program. In addition, a microprocessor watchdog circuit is integrated to maintain system reliability. LED indicators are provided to show system power and module operation via a blinking pulse LED.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA 3000 Relay Output Module</td>
<td>FGD-3040</td>
</tr>
</tbody>
</table>

#### SCADA 3000 Analog Output Module

The SCADA 3000 Analog Output Module features four analog output signals that can be configured as 4–20mA, 0–20mA, or 0–10V. The outputs can be used to control equipment, drive digital displays, or provide information to other computer devices. The individual outputs are capable of driving up to 1000 Ohms. They may be controlled automatically via a ladder program or C-program. The module also features a microprocessor watchdog circuit to maintain system reliability. LED indicators are provided to show system power and module operation via a blinking pulse LED.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA 3000 Analog Output Module</td>
<td>FGD-3050</td>
</tr>
</tbody>
</table>
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

**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

**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. Also available with NIST Certification.

WSG Wireless Temperature Sensor w/External Probe . . . . . . . FGD-WSG30-TEX
WSG Wireless Ultra Low Temperature Sensor w/External Probe . . . FGD-WSG30-TEX85
WSG Wireless Ultra Low Temperature Sensor in Glass Bead Vial . . . . . . . . FGD-WSG30-GBV

**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

**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

**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

**Wireless Repeater**

Only one repeater can be used per Sensaphone 2800. A more powerful radio transceiver can allow greater distances between wireless sensors and the WSG30. Sensaphone WSG30 Wireless Sensors

Accessories & Sensors
The Sensaphone IMS family allows monitoring of potential environmental threats in many of the same ways as traditional Sensaphone products. They can monitor for conditions such as temperature and humidity range, the presence of water, power failure, and physical security with both hard-wired and wireless sensors.

The IMS solutions are designed with many features that go beyond the traditional line of Sensaphone products. One of the biggest advantages is the ability to provide web based monitoring while still offering a traditional phone line. Users can monitor a single room or multiple rooms spread out over a campus, city, state, country, or continents with the same software and still be assured they will receive alarms even if the network connection is lost. The IMS solution is built to be expandable up to 32 units – with eight sensors monitored by each unit, up to 256 inputs can be monitored from one computer. If that’s not enough, multiple networks can be managed within the same software.

A full line of IMS specific sensors provide monitoring for a full range of environmental conditions. The sensors require no tools to install, simply plug them in using a standard RJ-45 connection and the IMS unit begins monitoring. With the addition of a Wireless Node, sensors can be monitored without running cables. Simply turn the wireless sensor on and place it in the location it will be monitoring.

At the center of any IMS solution is the software. All units come with the ConsoleView software which allows IMS users to program and manage their network. It allows users to achieve maximum potential from their system by setting detailed parameters for sensors, alarms and more. A multi-site, multi-user software license is included with the purchase so there is no worry about additional licensing costs.

In addition to all of the other advanced features, the IMS solutions offer features specific to monitoring a data center or computer room. The solution provides integrated monitoring of network connectivity and server operation, provides a full event-history and trending, and the units can be mounted directly into a server rack.

Even though the IMS solution was designed with the IT professional in mind, it is finding useful applications in many medical, pharmaceutical, and food industries that have a need for monitoring several locations using one simple solution.
✔ Reliability

• Supervised Sensors
  All of the IMS sensors are continuously monitored by the IMS parent unit. If they become disconnected an alert will be sent.

• Powered Sensors
  All IMS sensors are powered through their connection to the IMS parent unit.

• Redundant communication paths with “out of band” alarm notification.
  Receive alarm notification via several different channels; e-mail, text message, phone, and fax.

✔ Ease of Use

• Integrated Web Server

• Plug and play sensors with automatic identification and setup
  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 for sensors
  The use of Cat–5 jacks for sensor inputs allows the use of existing structured cabling to connect remote sensors.

✔ Powerful Features

• 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.

The Sensaphone IMS family allows monitoring of potential environmental threats in many of the same ways as traditional Sensaphone products. They can monitor for conditions such as temperature and humidity range, the presence of water, power failure, and physical security with both hard–wired and wireless sensors.

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A full line of IMS specific sensors provide monitoring for a full range of environmental conditions. The sensors require no tools to install, simply plug them in using a standard RJ-45 connection and the IMS unit begins monitoring. With the addition of a Wireless Node, sensors can be monitored without running cables. Simply turn the wireless sensor on and place it in the location it will be monitoring.

At the center of any IMS solution is the software. All units come with the ConsoleView software which allows IMS users to program and manage their network. It allows users to achieve maximum potential from their system by setting detailed parameters for sensors, alarms and more. A multi–site, multi–user software license is included with the purchase so there is no worry about additional licensing costs.

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Even though the IMS solution was designed with the IT professional in mind, it is finding useful applications in many medical, pharmaceutical, and food industries that have a need for monitoring several locations using one simple solution.
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
✓ Power Supply
✓ CD
✓ User’s Manual and Documentation
✓ Telephone Cord (Optional)
✓ Mounting hardware

Included Features

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

- Monitor up to 8 inputs
- Optional Voice Modem: Alarm voice phone calls, Call in for status
- Control 1 output
- Alarm Notification: E-mail, Text, SNMP Traps
- Programming & Access: The IMS-1000 includes a built-in web server. Just browse to its web page for all programming, configuration and access to current status. Alarm history and datalogging can be accessed through the web interface.

Features & Specifications

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

What’s in the box

Included Features:

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

Additional Features:

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

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.
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, pager, 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 expansion nodes offer the ability to monitor hard wired or wireless sensors. 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.

**What’s in the box**

- IMS-4000
- Power Cord
- DB9 Serial Cable
- Telephone Cord
- Mounting Hardware
- CD
- User’s Manual and Documentation

**Included Features**

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

---

**Product Name**

Sensaphone IMS-4000 Enterprise Host Unit. .......................................................... IMS-4001
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, pager, 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 expansion nodes offer the ability to monitor hard wired or wireless sensors. 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.

**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
- SNMP - MIB with traps, GET, GETNEXT, and SET

**Power Supply**
- Plug in power supply also monitors for power failures
- Built in battery backup

**Physical**
- 19 x 1.75 x 9.5” | 482 x 44 x 241mm
- 7.4lbs | 3.3kg

**Warranty**
- 3 Years

**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**

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

**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.
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 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.

### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Inputs</td>
<td>8</td>
</tr>
<tr>
<td>Input Types</td>
<td>IMS Solution</td>
</tr>
<tr>
<td>Remote Access</td>
<td>Console View Software and or website to access status and programming</td>
</tr>
<tr>
<td>Local Access</td>
<td>LEDs to show ethernet connectivity and power alarms. RS-232 serial port for local configuration</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Plug in power supply also monitors for power failures. Built in battery backup</td>
</tr>
<tr>
<td>Physical</td>
<td>9.6 x 1.75 x 7&quot;</td>
</tr>
<tr>
<td>Warranty</td>
<td>3 Years</td>
</tr>
</tbody>
</table>

### How it works

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 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.

### Alarm Notifications

- Phone
- E-Mail
- Text Messages
- SNMP Traps

### Optional Expansion

- IMS-4000 Node with Wireless Sensors

![Network Diagram](image)
IMS Monitoring Systems

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>IMS-4000 Dual Relay Output Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
<td>IMS-4310</td>
</tr>
</tbody>
</table>

**IMS-4000 Dry Contact Node**

<table>
<thead>
<tr>
<th>Number of Inputs</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Types</td>
<td>Dry Contact, Normally Open or Normally Closed</td>
</tr>
<tr>
<td>Internal Monitoring</td>
<td>AC Power, Backup Battery</td>
</tr>
<tr>
<td>Local Access</td>
<td>Power LED, Ethernet LEDs</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>32°F to 122°F</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Plug in power supply</td>
</tr>
<tr>
<td></td>
<td>Built in battery backup</td>
</tr>
<tr>
<td>Physical</td>
<td>7.3 x 5.5 x 1.5&quot;</td>
</tr>
<tr>
<td></td>
<td>2lbs</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>2.5W</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>IMS-4000 Dry Contact Node</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
<td>IMS-4010</td>
</tr>
</tbody>
</table>

How it works

<table>
<thead>
<tr>
<th>Network</th>
<th>Phone</th>
<th>E-Mail</th>
<th>Text Messages</th>
<th>SNMP Traps</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC running IMS</td>
<td>Console View Software</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sensaphone IMS Temperature Sensors

**IMS Room Temperature Sensor**

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>5° to 122°F</th>
<th>-15° to 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±3°F</td>
<td>±1.7°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.5 x 2.8 x 1.3”</td>
<td>110 x 70 x 30mm</td>
</tr>
</tbody>
</table>

The IMS-4810 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-4810

**IMS Room Temperature Sensor w/ Display**

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>32° to 95°F</th>
<th>0° to 35°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±3°F</td>
<td>±1.7°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.8 x 2.9 x 1.9”</td>
<td>120 x 73 x 47mm</td>
</tr>
</tbody>
</table>

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

**IMS Mini Temperature Sensor**

<table>
<thead>
<tr>
<th>Sensor Temperature Range</th>
<th>5° to 140°F</th>
<th>-15° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>±3°F</td>
<td>±1.7°C</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.1 x .6 x 1.4”</td>
<td>54 x 15 x 35mm</td>
</tr>
</tbody>
</table>

The IMS-4812 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-4812
IMS Solution Mini Temperature Sensor (°C) .................................................. IMS-4812-C
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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Solution Ultra Low Temperature Sensor</td>
<td>IMS-4814</td>
</tr>
<tr>
<td>IMS Solution Ultra Low Temperature Sensor &amp; NIST</td>
<td>IMS-4814-NIST</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Solution Ultra Low Temperature Sensor in Glass Bead Vial</td>
<td>IMS-4815</td>
</tr>
<tr>
<td>IMS Solution Ultra Low Temperature Sensor in Glass Bead Vial &amp; NIST</td>
<td>IMS-4815-NIST</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Solution Temperature Sensor w/ External Probe</td>
<td>IMS-4816</td>
</tr>
</tbody>
</table>
IMS Room Humidity Sensor

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>32° to 122°F</th>
<th>-28° to 80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>0 to 100%</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.5 x 2.8 x 1.3”</td>
<td>114 x 70 x 32mm</td>
</tr>
</tbody>
</table>

The IMS-4820 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 .......................... IMS-4820

IMS Room Humidity Sensor w/ Display

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>32° to 158°F</th>
<th>0° to 70°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>5 to 95%</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.8 x 2.9 x 1.9”</td>
<td>120 x 73 x 47mm</td>
</tr>
</tbody>
</table>

The IMS-4821 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-4821 includes a LCD display for local readings.

Part Name
IMS Solution Room Humidity Sensor w/ Display .................. IMS-4821

IMS Water Detection Sensor

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>32° to 140°F</th>
<th>0° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Plastic</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Series</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>5.5 x 3.3 x 1.4”</td>
<td>140 x 83 x 33mm</td>
</tr>
</tbody>
</table>

The IMS-4830 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-4830 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 .......................... IMS-4830

Part Name
IMSSolution External Power Failure Sensor ...................... IMS-4840

IMS-4840 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-4840 can monitor voltage from 0–250VAC 50/60Hz.

Part Name
IMS Solution 15 Amp Current Sensor ........................... IMS-4841

Part Name
IMS Solution 20 Amp Current Sensor ........................... IMS-4842

Part Name
IMS Solution External Power Failure Sensor .................... IMS-4840

Part Name
Axis IP Camera ................................................................ IMS-4423

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.
**Current Sensors**

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Solution 15 Amp Current Sensor</td>
<td>IMS-4841</td>
</tr>
<tr>
<td>IMS Solution 20 Amp Current Sensor</td>
<td>IMS-4842</td>
</tr>
</tbody>
</table>

**External Power Failure Sensor**

The IMS-4840 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-4840 can monitor voltage from 0–250VAC 50/60Hz

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Solution External Power Failure Sensor</td>
<td>IMS-4840</td>
</tr>
</tbody>
</table>

**Axis IP Camera**

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.

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis IP Camera</td>
<td>IMS-4423</td>
</tr>
</tbody>
</table>
Sensaphone IMS Sensors

**IMS Dry Contact Bridge**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>32° to 122°F</td>
</tr>
<tr>
<td>Input</td>
<td>Normally Open or Normally Closed Dry Contact</td>
</tr>
<tr>
<td>Source/Sense Voltage</td>
<td>14VDC</td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.2 x 3.3 x 1.3”</td>
</tr>
</tbody>
</table>

The IMS-4850 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  
**Part Number**  
IMS-4850

**IMS 4-20mA Bridge**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Limit</td>
<td>50mA</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± .25%</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.2 x 3.3 x 1.3”</td>
</tr>
</tbody>
</table>

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  
**Part Number**  
IMS-4851

**IMS Magnetic Reed Door & Window Switch**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>32° to 122°F</td>
</tr>
<tr>
<td>Bridge Input</td>
<td>Normally Open or Normally Closed Dry Contact</td>
</tr>
<tr>
<td>Source/Sense Voltage</td>
<td>14VDC</td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
</tr>
</tbody>
</table>

The IMS-4860 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  
**Part Number**  
IMS-4860
IMS Infrared Motion Detection Sensor

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>-4° to 140°F</th>
<th>-20° to 60°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>RJ45</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>3.8 x 1.8 x 2.5&quot;</td>
<td>97 x 63 x 47mm</td>
</tr>
</tbody>
</table>

The IMS-4861 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-4861 employs variable pulse-count adjustment, thus making it adaptable for use both inside and outside of server/equipment rooms.

Part Name
IMS Solution Infrared Motion Detection Sensor
Part Number
IMS-4861

Smoke Detection Sensor

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>40° to 100°F</th>
<th>4° to 37°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>RJ45</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.5 diameter x 2.6&quot;</td>
<td>165 x 66mm</td>
</tr>
</tbody>
</table>

The IMS-4862 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
IMS Solution Smoke Detection Sensor
Part Number
IMS-4862

IMS Airflow Sensor

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>32° to 80° F</th>
<th>0° to 27°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensing Range</td>
<td>Approximately 0 to 2,000 fpm</td>
<td></td>
</tr>
<tr>
<td>Sensor Series</td>
<td>IMS Solution</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>4.2 x 1.6 x 0.9&quot;</td>
<td>106 x 40 x 23mm</td>
</tr>
</tbody>
</table>

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
IMS Solution Airflow Sensor
Part Number
IMS-4863
Sensaphone IMS-4000 Node for Wireless Sensors

IMS Wireless Expansion

The IMS-4000 Receiver Node for Wireless Sensors extends the environmental monitoring capability of your IMS-4000 system by implementing Wireless Sensor technology. The Receiver Node can work with up to eight wireless sensors. The unit will wirelessly communicate with the sensors, then transmit their status back to your IMS-4000 host via its Ethernet connection. Wireless sensors are available to monitor Temperature, Humidity, Water on the Floor, Power, Dry Contacts, and 4-20mA signals. The sensors use mesh networking technology to create multiple communication paths between the sensors and the Receiver Node to ensure reliable communications. Sensors can also be battery powered for those installations where an outlet may not be available. A LCD is provided to show the status of all wireless sensors. The unit is powered by a plug-in adapter and has a 6V 1.3 AH rechargeable backup battery located inside the enclosure. Circuitry in the unit will maintain precise charging of the battery system.

Features & Specifications

<table>
<thead>
<tr>
<th>Feature</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Number of Wireless Inputs</td>
<td>8</td>
</tr>
<tr>
<td>Input Types</td>
<td>IMS Wireless Solution</td>
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<td>Operating Temperature Range</td>
<td>32° to 122°F</td>
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<td>Wireless Range</td>
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<td>Wireless Sensor Frequency</td>
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<td>Transmit Power Output</td>
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Wireless Sensors

The Sensaphone IMS Wireless Sensors sensors communicate with the Wireless Node via an integrated 2.4GHz wireless radio. The devices can transmit a signal up to 250' | 75m indoors and even greater distances line of site. The sensors come with 3AA batteries which will power the sensors for 2 years. An optional power supply is also available, in which case batteries function as backup power.
Sensaphone IMS-4000 Node for Wireless Sensors

**Product Name** Part Number  
Sensaphone IMS-4000 Receiver Node for Wireless Sensors  
IMS-4200

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**Wireless Sensors**

- **Wireless Temperature Sensor**  
  IMS Wireless Temperature Sensor . . . . . . . IMS-4210

  | Sensor Temperature Range | 32° to 115°F | 0° to 57°C |
  | Accuracy                | ± 1°F        | ±.56°C     |

  This wireless temperature sensor measures ambient air temperatures from 32° to 115° | 0° to 57°C.

- **Wireless Ultra Low Temperature Sensor**  
  IMS Wireless Ultra Low Temperature Sensor with External Probe . . . . . . . . . . IMS-4210-E

  | Temperature Range | -109° to 122°F | 85° to 50°C |
  | Accuracy         | ± 1.8°F       | ±1°C        |

  Includes an external temperature probe and is intended for monitoring temperatures in refrigerators and freezers.

- **Wireless Humidity Sensor**  
  IMS Wireless Humidity Sensor . . . . . . . IMS-4211

  | Humidity Range | 5 to 90%RH   |
  | Accuracy       | 3%           |

  Transmits actual humidity levels to the IMS unit for programmable high and low alarm limits.

- **Wireless Dry Contact Bridge**  
  IMS Wireless Dry Contact Bridge . . . . . . . IMS-4212

  | Input Characteristics | 3MΩ to 3V  |
  | Operating Range       | 32° to 115°F | 0° to 57°C |

  The Wireless Dry Contact Bridge provides remote contact monitoring without running wires.

- **Wireless Power Failure Sensor**  
  IMS Wireless Power Failure Sensor . . . . . . . IMS-4213

  | Operating Range       | 32° to 115°F | 0° to 57°C |
  | Range                | Up to 250’ | 76m |

  Includes a plug in power supply that monitors for loss of power. Runs on batteries if power does go out.

- **Wireless 4-20mA Bridge**  
  IMS Wireless 4-20mA Bridge . . . . . . . IMS-4214

  | Input Load         | 260 Ohms     |
  | Loop Current       | 20mA Max     |

  The sensor provides monitoring of 4-20mA transducers. A 24V DC supply is built in to power the current loop.

- **Wireless Spot Water Detection Sensor**  
  IMS Wireless Spot Water Detection Sensor . . IMS-4215

  | Operating Humidity Range | 5–90%   |
  | Operating Range          | 32° to 115°F | 0° to 57°C |

  This sensor has four probes on the bottom of the enclosure which will trigger an alarm when any adjacent pair get wet.

- **Wireless Zone Water Detection Sensor**  
  IMS Wireless Zone Water Detection Sensor . . IMS-4216

  | Water Rope Length | 10’ | 3m |
  | Water Rope Expansion | Up to 10 ropes |

  This sensor comes with 10’ of leak detection cable which triggers an alarm when it gets wet.
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