

## Features and Specifications

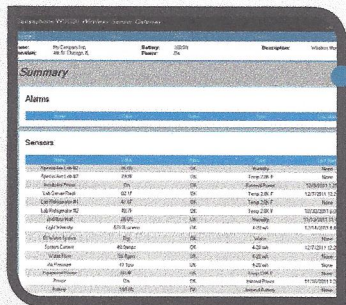
### Powerful Wireless Sensors

Accept thirty different wireless sensors from distances of up to 300' away (or farther if there is a line of site or are other sensors in between). A list of popular sensors and accessories is below.



### Ethernet

Receive an e-mail or text message when an alarm has been detected. Or check the status on the WSG30's web page.



### Web Services

Program, adjust and monitor the status of the sensors on a webpage the WSG30 creates.

### Battery Backup

Rest easy knowing that even if the power goes out, the WSG30 will keep monitoring.

### LCD Display

For a quick local check of the sensor's status.

### Keypad

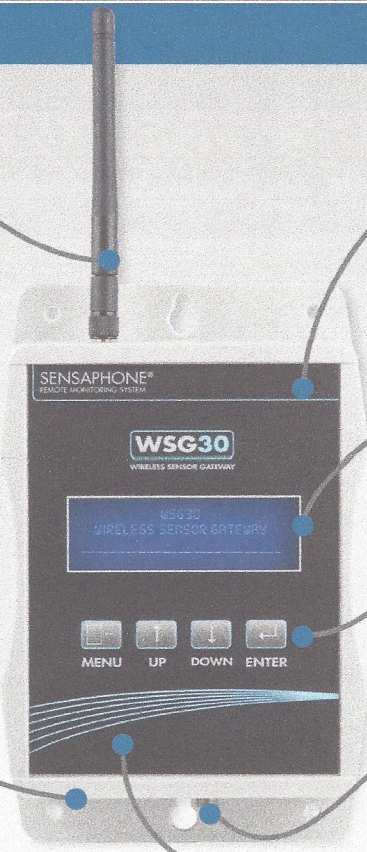
Use to scroll through the LCD display.

### Power

Comes with a plug in power supply that also monitors for power failures.

### Industrial Automation

Communicate with an existing automation system using the Modbus protocol.



## Compatible Sensors & Accessories

- Temperature Sensor .....FGD-WSG30-TMP
- Temperature Sensor w/ External Probe..... FGD-WSG30-TEX
- Ultra Low Temperature Sensor w/ External Probe.....FGD-WSG30-TEX85
- WSG Wireless Humidity Sensor ....FGD-WSG30-HUM

- Dry Contact Interface.....FGD-WSG30-DRY
- Power Failure Sensor.....FGD-WSG30-PWR
- 4-20mA Interface..... FGD-WSG30-4-20
- Spot Water Detection Sensor..... FGD-WSG30-SPOT
- Zone Water Detection Sensor .... FGD-WSG30-ZONE

# SENSAPHONE Monitoring Solution

Web based monitoring  
with wireless sensors

## WSG-30



### Description

Introducing the new Sensaphone Wireless Sensor Gateway system. The WSG-30 is a unique wireless sensor monitoring system that can be used in more than one way. As a standalone system, it can monitor a variety of conditions from the wireless sensors and directly notify the appropriate personnel by sending e-mails and text messages. The convenience of having wireless sensors allows you to move your sensors around while tracking down heat problems within a data center. The WSG-30 is perfect for monitoring refrigerators and freezers for food and medical applications where running wires may be inconvenient or costly.

*Why choose the WSG-30?*

- When running sensor wires is too expensive and/or inconvenient*
- When the monitoring environment is very dynamic with sensing needs changing often.*
- To transmit sensor information wirelessly to an existing HMI system.*

### Compatible with



The WSG-30 can also be used within an existing industrial automation system and communicate directly with existing HMI software using the Modbus protocol. Information from sensors and transducers can be sent wirelessly to the WSG-30 main unit and then into your automation software.

The WSG-30 is even smart enough to supply wireless sensor data to your existing automation software, and still independently send e-mail and text message alarm notifications on its own.

### Wireless Sensors



Up to 30 wireless sensors can be monitored by the WSG-30 in addition to automatic power failure alarm detection and diagnostic alarms. Battery backup is also built in.

#### Available Wireless Sensors:

- Temperature • Humidity
- Dry Contact • 4-20mA
- Zone Water Detection
- Spot Water Detection
- Power Failure

### Functional Diagram



### Description

Part Number

## Wireless Sensor Features:

- Up to 30 wireless sensors reporting back to the main unit.
- Sensors can be up to 300' away.
- Creates its own Mesh Network so that sensors can be used as repeaters and routers.
- The Wireless sensors can operate on standard AA batteries for up to 2 years.
- All sensors are supervised with their battery level reported and monitored.
- If any sensor has a low battery or drops offline, a diagnostic alarm is generated and users are contacted.
- One-year warranty

## Alarm Notification:

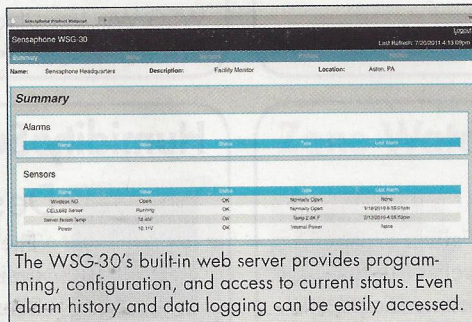
- Eight User Profiles can be programmed with 4 contact methods for each one, for a total of 32 alarm notifications.
- Each contact method can be an e-mail or a text message.
- When used in a data center environment, alarms can also be sent directly to network management software using SNMP traps

## Built In Alarms:

- Power Failure
- Low Backup Battery
- Sensor Diagnostics for low sensor battery or sensor not responding.

## Advanced Scheduling and Selection:

- Each sensor can be programmed with a schedule so that it is only monitored for alarms when you need it.
- Even the alarm delivery to the users can be scheduled so that different people are notified for alarms depending on time of day and day of the week.
- In addition to the flexible scheduling options, there is also the ability to have different people notified for different alarms. So, only the people responsible for a particular issue will be the ones who are notified.



The screenshot shows the web interface for the WSG-30 device. At the top, it displays 'Smartphone WSG-30' and 'Last Refresh: 7/20/2011 4:13:07pm'. Below this, there is a header section with 'Name: Smartphone Headquarters', 'Description: Facility Monitor', and 'Location: Afton, PA'. The main content area is divided into two sections: 'Summary' and 'Sensors'. The 'Summary' section has a sub-section for 'Alarms' with a table that is mostly blank. The 'Sensors' section has a table with the following data:

| Sensor ID        | Unit    | Status | Network Open   | Last Alarm          |
|------------------|---------|--------|----------------|---------------------|
| CELLULAR Server  | Flaming | OK     | Network Open   | None                |
| Server Room Temp | 10.000  | OK     | Temp OK F      | 9/10/2010 4:18:00pm |
| Power            | 10.110  | OK     | Internal Power | None                |

The WSG-30's built-in web server provides programming, configuration, and access to current status. Even alarm history and data logging can be easily accessed.

## Interfacing

### Web Page

The WSG-30 includes a built-in web server. Just browse to its web page for all programming, configuration, and access to current status. Even alarm history and data logging can be easily accessed through the web interface.

## Local Display

For a quick local check of the sensors, there is a 4 line display and keypad interface right on the front. The status of all sensors can be easily and quickly viewed at anytime without the need for a computer.

## Modbus Protocol

Support for the Modbus protocol is included in the WSG-30. Third party automation software can be used to connect and pull data for all sensor values in real time.

## SNMP Management

The WSG-30 also allows full remote management using the SNMP protocol. All status values as well as programming parameters can be accessed using Get and Set commands from standard network management software.

## Data Logging:

- A minimum of 67,000 time stamped records can be stored inside the WSG-30 to follow history and trends of the monitored conditions.
- Data log history can be accessed directly through the built-in web page, exported in a standard format, or interfaced using XML.

## Battery Backup:

- The WSG-30 main unit includes an internal battery backup system that will power the device for up to two hours in case of a power failure.

# SENSAPHONE Monitoring Sensor



## WSG30 Wireless Sensors

### Room Temperature Sensor



#### Description

The WSG Wireless Temperature sensor is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter and temperature element for monitoring temperature wherever the device is installed. The sensor comes with two AA alkaline batteries which will power the sensor for up to two years. An optional plug-in power supply is available.

#### Specifications

|  |   |
|--|---|
| <b>Monitoring Temperature Range:</b><br>32° to 115°F<br>0° to 57°C | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                            |
| <b>Accuracy:</b> ±1°F  | <b>Power:</b> (2) AA alkaline batteries and/or 5VDC (300mA) plug-in adapter |
| <b>Battery Life:</b> 2 years                                       |   |
| WSG Wireless Room Temperature Sensor . . . . . FGD-WSG30-TMP       |   |

### Temperature Sensor w/Probe



#### Description

The WSG Wireless Temperature sensor with External Probe is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter and a remote temperature probe so that temperature measurements can be made in a refrigerator, freezer or other harsh environments. For temperatures below -20°F please use part number FGD-WSG30-TEX85.

#### Specifications

|   |   |
|---|---|
| <b>Monitoring Temperature Range:</b><br>-109° to 115°F -85° to 57°C                                 | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                            |
| <b>Accuracy:</b> ±1°F   | <b>Power:</b> (2) AA alkaline batteries and/or 5VDC (300mA) plug-in adapter |
| <b>Battery Life:</b> 2 years  |   |
| WSG Wireless Temperature Sensor w/External Probe . . . . . FGD-WSG30-TEX                            |   |
| WSG Wireless Ultra Low Temperature Sensor w/External Probe & Teflon Cable . . . . . FGD-WSG30-TEX85 |   |

### Power Failure Sensor



#### Description

The WSG Wireless Power Failure sensor is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter, two AA alkaline batteries and a wall plug in power supply. The sensor will detect a loss of power at the outlet where the power supply is attached. The two AA alkaline batteries will power the sensor and allow it to transmit alarm information in the event that 120VAC power fails.

#### Specifications

|  |  |
|--|--|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                         |
| <b>Battery Life:</b> 2 years                                     | <b>Power:</b> (2) AA alkaline batteries and 5VDC (300mA) plug-in adapter |
| WSG Wireless Power Failure Sensor . . . . . FGD-WSG30-PWR        |  |

### Humidity Sensor



#### Description

The WSG Wireless Humidity Sensor is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter and humidity sensor element for monitoring humidity wherever the device is installed. The sensor comes with two AA alkaline batteries which will power the sensor for up to two years. An optional plug-in power supply is also available. The batteries then become a backup if main AC power fails.

#### Specifications

|  |   |
|--|---|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                            |
| <b>Accuracy:</b> ±3% from 20-80% (±5% otherwise)                 | <b>Power:</b> (2) AA alkaline batteries and/or 5VDC (300mA) plug-in adapter |
| <b>Battery Life:</b> 2 years                                     |   |
| WSG Wireless Humidity Sensor . . . . . FGD-WSG30-HUM             |   |

## WSG30 Wireless Sensors

### Dry Contact Bridge



#### Description

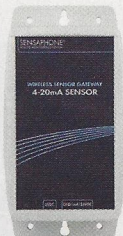
The WSG Wireless Dry Contact Bridge is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter and input terminals for connecting to any normally-open or normally closed output. (Use of this device with solid-state outputs is not recommended.) The sensor comes with two AA alkaline batteries which will power the sensor for up to two years. An optional plug-in power supply is also available.

#### Specifications

|  |   |
|--|---|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                            |
| <b>Battery Life:</b> 2 years                                     | <b>Power:</b> (2) AA alkaline batteries and/or 5VDC (300mA) plug-in adapter |

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

### 4-20mA Bridge



#### Description

The WSG30 Wireless 4-20mA bridge is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter, 4-20mA input and a 24V loop power supply. The sensor can be used to monitor the output of any 4-20mA transducer. The sensor comes with a plug-in power supply and three AA alkaline batteries which will power the sensor for several hours if main AC power fails.

#### Specifications

|  |  |
|--|--|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                         |
| <b>Accuracy:</b> ±1%   | <b>Power:</b> (3) AA alkaline batteries and 5VDC (300mA) plug-in adapter |
| <b>Battery Life:</b> 2 years                                     |  |

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

### Spot Water Detection Sensor



#### Description

The WSG30 Wireless Spot Water Detection Sensor is designed to work exclusively with the Sensaphone WSG30. This sensor includes a built-in radio transmitter and water sensing probes for monitoring for the presence of water at a particular location. The sensor comes with three AA alkaline batteries which will power the sensor for up to two years.

#### Specifications

|  |   |
|--|---|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Power:</b> (3) AA alkaline batteries |
| <b>Range (Indoor/Urban):</b><br>Up to 300' (90m)                 | <b>Battery Life:</b> 2 years            |

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

### Zone Water Detection Sensor



#### Description

The WSG30 Wireless Zone Water Detection Sensor is designed to work with the WSG30. This sensor includes a built-in radio transmitter and 10 feet of water sensing cable for monitoring for the presence of water in a particular area. The size of the monitored area can be extended by attaching up to 9 additional lengths of Water Rope (FGD-0063) to the end of the included Water Rope. The sensor comes with three AA alkaline batteries which will power the sensor for up to two years.

#### Specifications

|  |   |
|--|---|
| <b>Operating Temperature Range:</b><br>32° to 122°F (0° to 50°C) | <b>Power:</b> (3) AA alkaline batteries |
| <b>Range (Indoor/Urban):</b><br>Up to 100' (30m)                 | <b>Battery Life:</b> 2 years            |

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