WSG WIRELESS HUMIDITY SENSOR

INTRODUCTION

The WSG Wireless Humidity sensor provides remote monitoring without running wires. Data is sent from the sensor to the WSG30 via an integrated 2.4GHz Wireless radio. The device can transmit its signal up to 300' indoors and even greater distances when it has line-of-site. The WSG30 series of Wireless sensors also feature mesh networking technology, which allows each sensor to be used as either a Wireless sensor/router or as a low-power battery operated sensor (also referred to as an end point). When used as a router, greater distances can be realized because each sensor/router adds another 300' of range to the system. The sensor comes with 2 AA alkaline batteries which will power the sensor for up to 2 years (end point mode). An optional plug-in power supply is also available, in which case the batteries function as backup power if main AC power fails (power supply required for router mode).

NOTE: Do not install the sensor in a dirty, humid, or corrosive environment. Do not install the sensor in close proximity to other 2.4GHz devices (WiFi, etc). Do not install the device inside of a metallic enclosure as this will impede it's ability to Wirelessly communicate with the WSG30 .

PACKAGE CONTENTS

(1) Wireless Humidity Sensor   (2) AA Alkaline batteries

(1) Plastic drywall anchors   (1) #6 Metal tapping screws

INSTALLATION SUMMARY

1) Locate the sensor serial number on the small white label inside the sensor enclosure.

2) Enter the serial number into the WSG30 using the web page or keypad.

3) Mount the sensor.

4) Attach power supply if using as a router and install the batteries.

5) Watch the LCD or web page to confirm that the sensor has connected with the WSG30.

SENSOR REGISTRATION

Before you power-up the sensor you must enter the serial number, located on the small white label inside the sensor enclosure, into the WSG30. You can do this with the WSG30 web page or you can enter it using the WSG30 keypad (see Sensor Registration earlier in this manual). Just be sure to jot down the serial number before you attach the sensor to the wall.

BATTERY INFORMATION

The Wireless Humidity Sensor can operate for up to 2 years on a good set of AA alkaline batteries when the sensor is configured as an end-device with a 3 second sampling interval. Sensors configured as routers must use a plug-in power supply. Faster sampling intervals will reduce battery life.

BATTERY INSTALLATION

Carefully separate the top of the enclosure from the bottom. Locate the battery holder on the circuit board. Take note of the polarity markings identifying the positive and negative ends of the batteries. Install the batteries. Re-attach the top and cover.

POWER SUPPLY WIRING (ROUTER MODE)

When using your wireless sensor in Router mode, you must use an external power supply (Sensaphone Part #XFR-0041). This is required because router mode uses more power than can be supplied by batteries alone for an extended period of time. You can also use a power supply when the sensor is configured as an End Point, which will greatly extend the life of the batteries and minimize the need to change them.

To connect the power supply, remove the sensor cover and locate the screw terminals labeled "5V DC". connect the positive wire from the power supply to the "+" terminal. Plug the power supply into an appropriate outlet.

MOUNTING

The humidity sensor can be mounted directly on a flat surface. Consideration should be given as to whether or not an electrical outlet will be required if using the optional power supply. Mount the sensor as high as possible to provide for optimal Wireless transmission. When installed within a building where the Wireless signal must travel through several obstructions, the sensor should be located within 250' of the WSG30 or within 300' of a sensor/router.

Use a pencil to mark the hole locations at the top and bottom of the housing. Install the drywall anchors (if necessary) to the wall. Attach the housing to the wall using #6 tapping screws.
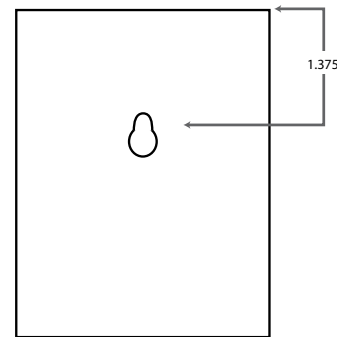
SPECIFICATIONS

Operating Temperature Range: 32° to 122° F (0° to 50° C)

Operating Humidity Range: 0- 90% RH non-condensing

Accuracy: ± 3% from 20-80% RH (± 5% otherwise)

Range (Indoor/Urban): Up to 300' (90m)

Transmit Power Output: 100mW (20dBm)

Operating Frequency: ISM 2.4 GHz

Power: (2) AA alkaline batteries and/or 5VDC (300mA) plug-in adapter

Battery Life: Up to 2 years @ Sampling interval = 3 seconds

Dimensions: 3.1" x 3.8" x 1.1" (7.9cm x 9.8cm x 2.85cm)

Housing: White plastic

*Specifications subject to change without notice