HS-FS100+ Z-Wave Flex Sensor

OVERVIEW

HS-FS100+ ("Flex Sensor") is a multifunction module that includes a temperature sensor, controllable buzzer and a port to connect optional external light or water sensors. It is designed to work with a variety of Z-Wave certified home controllers to launch automation events or scenes.

Applications

- Use to trigger events based on changes in temperature
- Use the built-in buzzer as an audible notification that triggers when things happen in your home
- Use with optional light sensor to trigger events when indicator lights on appliances turn on or off
  Example: "Dehumidifier is full" indicator turns on
- Use with optional water sensor to trigger events when water is detected near basement walls, plumbing fixtures or appliances

Configuration

Flex Sensor is equipped with a Z-Wave network button (for inclusion/exclusion), LED indicator and micro USB connector for use with an AC power adapter (not included). A 3.5mm jack is also provided for connection to the optional wired light or water sensors. Z-Wave commands are used to transmit temperature, light and water detection data and to control the built-in buzzer.

Physical Installation

Install 3 AAA batteries (not included) inside Flex Sensor and mount it in the location of your choice using the supplied double-stick tape, mounting plate and mounting hardware.

Z-Wave Network Installation

Use the instructions below to **include** or **exclude** Flex Sensor to/from your Z-Wave network.

Inclusion
1) Attach light or water sensor cable (if available). Put your home automation controller into Z-Wave 'inclusion' mode.
2) Press the Z-Wave network button on the front of the unit one time. Wait for the inclusion process to finish. This may take some time.

Exclusion
1. Put your home automation controller into Z-Wave 'exclusion' mode.
2. Press the Z-Wave network button on the front of the unit one time. Wait for the exclusion process to finish. This may take some time.

Reset (Use this procedure to reset Flex Sensor to factory settings when the Z-Wave controller is missing or otherwise inoperable).
1. Press and hold the Z-Wave button inside the sensor body for 10 seconds. If successful, the LED will flash 5 times.

Built-in Temperature Sensor

The temperature sensor is designed to transmit temperature data to your controller using Z-Wave commands every 60 minutes (on battery power). That interval may be changed when the unit is line powered. See parameter settings on page 2 for details.

Optional Light Sensor

The light sensor can be mounted over any indicator light and will notify your controller with a Z-Wave command and will beep 5 times when light is detected. Another Z-Wave command will be sent to the controller when light is no longer detected. This sensor will check for light every 60 seconds (on battery power) or every 400 ms (on line power).

Optional Water Sensor

The water sensor is designed to detect moisture along the entire length of its cable. This is especially useful for detecting leaks over extended distances and around appliances. Optional extension cables may be added for coverage of up to 300 feet. The sensor will notify your controller with a Z-Wave command and will beep 5 times when the water is detected. Another Z-Wave command will be sent to the controller when water is no longer detected. This sensor will check for water every 60 seconds (on battery power) or every 400 ms (on line power).

Buzzer

The built-in buzzer emits a single beep when activated with a Z-Wave command.

Z-Wave Association Information

Flex Sensor supports Group 1 association. Group 1 reports the sensor's status and battery if running on batteries.

Wake Up Settings

Flex Sensor can be programmed to wake up and send its battery status based on the polling interval set. The polling interval is set to 12 hours by default when the unit is added on battery power. When on line power, wake up is not supported.

Wake up interval

Available settings: 6-1500 (minutes)

Default setting: 0 - A setting of "0" disables the regular reporting feature and requires the sensor to be manually woken up to send updates.

Default setting when added to HomeSeer systems: 12 hours

Notes

Important: Line-powered devices function as Z-Wave repeaters. If you'll be powering Flex Sensor with batteries, include it into your network ON BATTERY POWER to prevent it from repeating Z-Wave commands. This functionality would quickly deplete your Flex Sensor's batteries.

If your home controller supports "S2" security encryption, the Flex Sensor will add as a 'secure' device to your network. If not, it will add as a non-secure device. This will not effect the functionality of the unit.

ADVANCED CONFIGURATION (accessible via the "Root device" in a HomeSeer System)

Parameter	Settings
1	**Light Sensitivity** 0=high sensitivity 1=medium sensitivity 2=low sensitivity
2	**Water Detection beep frequency** 0=every 10 minutes (approx battery life of 3 months in this mode) 1=every 5 minutes 2=every 30 minutes
3	**Temperature reporting interval when on line power** 30-255 seconds, default=60
4	**Enable Notification Buzzer** 0 = Disabled 1 = Enabled (Default)

SPECIFICATIONS

Operating Temp Range	0ºC to 40ºC	**Power Supply**	Requires (3) AAA 1.5V Batteries
Z-Wave Frequency | Range **Z-Wave Certification**	908 MHz (US) | Up To 300 Ft line of sight Z-Wave Plus	**Dimensions**	Main Unit: 3 x 3 1/8 x 7/8 inches Light Cable: 4 feet in length Water Cable: Length varies

LIMITED WARRANTY

HomeSeer Technologies, LLC will repair or replace, at its option, any part of the device, which proves to be defective in workmanship or material under normal use, in the USA except in the states of Alaska or Hawaii, for a period of one year from the date the device is purchased. During the warranty period, HomeSeer Technologies, LLC will repair and provide all parts necessary to correct such defects, free of charge, provided the device has been operated in accordance with the manufacturer's guidelines. The Customer will return the device to HomeSeer Technologies, LLC for testing and repair or replacement. Should you need service, during warranty period or beyond, contact HomeSeer to obtain return authorization before shipping your device to HomeSeer Technologies, LLC.

This product employs or practices certain features and/or methods of the following U.S. Patents: U.S. Patent Nos.6,891,838, 6,914,893 and 7,103,511.