

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.

INSTALLATION

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.

Inclusion / Exclusion

Add or remove the device into your network by a Z-Wave certified controller. HS-FS100+ supports the latest S2 security offered by Z-Wave certified controllers. If your controller supports S2, please refer to the user guide of the controller for detailed instructions on adding or removing devices to/from the network. If not, it will add as a non-secure device, this will not affect the functionality of the unit, the device can be added or removed using the following procedure:

- 1 Attach either the light or water sensor cable (if available) to HS-FS100+ before it is powered on, then start the inclusion process.
Note: When adding or removing optional water extension cables, make sure HS-FS100+ is powered off.
- 2 Put your Z-Wave controller into inclusion mode. Consult your controller manual if you’re unsure how to do this.
HomeSeer users: press “Add Device” on your Z-Tool+ mobile app
- 3 Press the Z-Wave network button on the front of the unit one time, wait for the inclusion process to finish.

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

Built-in Temperature Sensor

The temperature sensor is designed to transmit temperature data to your controller using the command class sensor multilevel, every 60 minutes (on battery power). That interval may be changed when the unit is on line power, 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 an event type (Light Detected Notification), if it detects color it will send a different event type (Light Color Change Detected) command and will beep 5 times. A “No Event” command will be sent to the controller when light is no longer detected. The sensor will check for light every 60 seconds (on battery power) or every 400ms (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 150 feet. The sensor will notify your controller with a (Water Alarm Notification), event type (Water Leak Detected) command and will beep 5 times when water is detected. In addition, once water is detected, frequency of the beep and notification to the controller can be configured based on parameter 2, the default setting is every 10 minutes. Another Z-Wave command will be sent to the controller when water is no longer detected. The cable can be reused once it dries. The sensor will check for water every 60 seconds (on battery power) or every 400 ms (on line power).

Note: Whenever an event such as water leak or light status change is triggered for an extended period of time, battery life will be significantly reduced. After such an event, it is recommended to install fresh batteries or use USB power supply.

Buzzer

The built in buzzer emits 5 beeps when the device detects water or light. On line power (USB) the associated controller may enable the buzzer by sending a command class basic or binary switch set command with a non zero value to the sensor.

Z-Wave Association Information

Flex Sensor supports Group 1 and Group 2 Association with up to five Z-Wave devices per group. Group 1 supports Lifeline Communication, it reports the sensor's status and battery if running on batteries. Group 2 supports Basic Set, this allows you to control other devices, for example, if the unit detects light or water it can turn on an associated light.

COMPATIBILITY

Your new HomeSeer Flex Sensor is Z-Wave Plus certified and is ready to be used with a variety of home automation controllers. The special features of this switch are supported using a number of different Z-Wave technologies. HomeSeer systems are designed to support these technologies and will provide the most seamless operation of these features. However, other systems may also provide satisfactory results depending on the level of support they provide for these same technologies. If you're using a non-HomeSeer system, be sure to check our support page (<https://homeseer.com/support-home/>) for further details.

Notes

Important: On line power, the device functions as a Z-Wave repeater. If you'll be powering the 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.

Z-Wave Parameters				
Parameter	Description	Bytes	Value	Default
1	Sets the light sensitivity	1	0 = High Sensitivity 1 = Medium Sensitivity 2 = Low Sensitivity	2
2	Beep and notification frequency once water is detected	1	0 = every 10 minutes (approx battery life of 3 months in this mode) 1 = every 5 minutes 2 = every 30 minutes	0
3	Temperature reporting interval when on line power	1	30-255 seconds	60
4	Enable notification buzzer	1	0 = Disabled 1 = Enabled	1
5	Flashing LED detection delay Set delay to avoid continuous notifications when detecting flashing LED's. Flex Sensor will not send notification until flashing LED status changes.	1	0-20 seconds Value of 0 = no delay Note: Use only when detecting flashing LED's	0

SPECIFICATIONS

Power (not included)	Requires (3) AAA 1.5V batteries or Standard 5V micro USB power supply
Operating Temp Range	0°C (32°F) to 50°C (122°F)
Z-Wave Frequency	908.4 / 916 MHz
Range	132 ft. (open air)
Certifications	FCC/IC, 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

INDOOR USE ONLY

WARRANTY

HomeSeer warrants to the original purchaser that this product, for the warranty period, will be free from material defects and workmanship. This warranty is subject to proper installation and operation of the product. Homeseer's sole obligation, under this warranty, is to repair, replace or correct any defect that was present at the time of delivery. This warranty does not extend to consequential or incidental damage to other products that may be used with this product. Warranty claims must be submitted in writing directly to HomeSeer at HomeSeer.com. Warranty period: limited 1 year from date of purchase.

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

IC statements:

This device complies with Part 15 of the FCC Rules and with RSS of Industry Canada. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.