



HS-LS100+ Z-Wave Leak Sensor

OVERVIEW HS-LS100+ is a compact, easy to install leak sensor. It is designed to control other Z-Wave devices directly or it may be used with a variety of Z-Wave certified home controllers to launch automation events or scenes.

Applications

- Use to activate Z-Wave devices such as sirens or water valve controllers when a leak is sensed.
- Use to trigger home automation events (aka “scenes”, “automations” or “robots”) when a leak is sensed.

Configuration

HS-LS100+ is battery powered and includes a Z-Wave network button, LED indicator and a magnetic wall mount/wired probe assembly. The unit may be deployed as a free-standing sensor (using built-in probes) or as a wired remote sensor (via the wall mount/wired probe assembly).

Z-Wave Network Installation Remove the back cover by rotating counter-clockwise and install 1 ER14250 battery (included) inside HS-LS100+. Include the sensor into your Z-Wave network using the instructions below. Then, replace the back cover. Use the instructions below to **include** or **exclude** HS-LS100+ to/from your Z-Wave network.

Inclusion (recommended if your home controller supports “S0” or “S2” Z-Wave encryption)

1. Put your home controller into Z-Wave ‘inclusion’ mode.
2. Quickly triple-press the Z-Wave network button, then release it. Wait for the inclusion process to finish.

Exclusion

1. Put your home automation controller into Z-Wave ‘exclusion’ mode.
2. Quickly triple-press the Z-Wave network button. Wait for the exclusion process to finish.

Reset (Use this procedure to reset HS-LS100+ to factory settings when the Z-Wave controller is missing or inoperable).

1. Press and hold the Z-Wave button for 20 seconds. Release the button once the LED stops blinking and glows solidly.

Physical Installation

Free-standing installation: Simply place the leak sensor on a flat horizontal surface in the area where a leak might occur.

Remote installation: Install the included magnetic wall mount/wired probe assembly in the location of your choice (using the supplied mounting hardware) and attach the HS-LS100+ to it by aligning the 3 probes with the 3 holes in the mounting bracket. Position and install the wired probe in the area where a leak might occur or where you wish to detect liquid.

Leak Sensor Operation

HS-LS100+ is designed to transmit a Z-Wave command when liquid is sensed. It will also transmit another command when liquid is no longer sensed.

Shock Sensor Operation

The shock sensor is designed to transmit a Z-Wave command when HS-LS100+ has been physically moved. This sensor is especially helpful in determining whether the unit has been removed from its mount or tampered with.

Battery Sensor Operation

The battery sensor is designed to report battery level with a Z-Wave command every 43200 seconds (12 hours). If

desired, HomeSeer users can adjust this interval (0-2678400 seconds) by accessing the settings on the Z-Wave tab of the root device. Note: battery sensor operation is disabled on units that are line powered.

Z-Wave Association Information

HS-LS100+ supports Group 2 association. Group 1 reports the sensor's status and battery if running on batteries. Group 2 is assigned to send BASIC SET command.

Grouping Identifier	Max Nodes	Send Commands
Group 1 General: Lifeline	0x05	<p>1. Notification Report. Sensor will send Notification Report to the associated nodes.</p> <p>2. Battery Report. Flood Sensor will send Battery Report when the battery level is low and the battery report's value is 0xFF.</p> <p>3. Device Reset Locally Notification. Sensor will send Device Reset Locally Notification when reset</p> <p>4. sensor multilevel report When associated to Group 1, you can adjust the temperature reporting cycle according to the configuration settings.</p>
Group 2 Control:Key01	0x05	<p>1. Basic Set. Flood Sensor will send Basic Set to associated nodes when Water leak detected.</p>

Notification

Supported Notification Type	Supported Event
Heat Alarm (0x04)	Overheat detected, Unknown Location(0x02)
	Under heat detected, Unknown Location(0x06)
Water Alarm (0x05)	Water leak detected, Unknown Location(0x02)
Home Security (0x07)	Tampering, Product covering removed (0x03)

- When the Overheat detected, send Heat Alarm (04) and Overheat detected, Unknown Location(0x02);
- When Under heat detected, send Heat Alarm (04) and under heat detected, Unknown Location(0x06);
- When Water leak detected, send Water Alarm (05) and Water leak detected, Unknown Location(0x02);
- When Tampering detected, send Home Security (07) Tampering, Product covering removed(0x03);

Notes

- If your home controller supports "S2" security encryption, the Leak Sensor may be added as a 'secure' device to your network. This will not effect the functionality of the unit.

Advanced Configuration

ADVANCED CONFIGURATION (accessible via the “Root device” in a HomeSeer System)			
Parameter	Settings	Parameter	Settings
14	Enable / Disable Basic Set Command Available: 0=disable, 1=enable Default: 0 Size: 1 byte	20	Set High Temperature Trigger Value Available: -670 to 2570 (-67 to 257 °F) Default: 1040 (104 °F) Size: 2 bytes
15	Set Value for Basic Set Command Available: 0=Sends 255 value when leak sensed Available: 1=Sends 0 value when leak sensed Default: 0 Size: 1 byte	22	Set Low Temperature Trigger Value Available: -670 to 2570 (-67 to 257 °F) Default: 320 (32 °F) Size: 2 bytes
17	Leak Report Interval Available: 0=disable, 1 to 255 (minutes) Default: 5 Size: 1 byte	24	Enable Blinking LED When Alarm Triggers Available: 0=disable, 1=enable Default: 1 Size: 1 byte
18	Enable Shock Sensor Available: 0=disable, 1=enable Default: 0 Size: 1 byte	32	Set Value for Low Battery Available: 10-50 (%) Default: 20 (%) Size: 1 byte
19	Temperature Report Interval Available: 0=disable, 1 to 255 (minutes) Default: 0 Size: 1 byte	Note: Parameter 18 (“Enable Shock Sensor”) and parameter 19 (“Temperature Report Interval”) are disabled by default, to conserve battery life.	

SPECIFICATIONS			
Operating Temp Range	0°C to 40°C	Power	Requires (1) ER14250 Battery
Z-Wave Frequency Range	908 MHz (US) Up To 300 Ft line of sight	Dimensions	Sensor (main unit): 2.75 x 2.75 x .75 (inches)
Z-Wave Certification	Z-Wave Plus		

- For more information, visit homeseer.com.

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.