LIVI

Livi GS glass break sensor
## manual

DESCRIPTION

The Livi GS acoustic glass break sensor (hereafter referred to as the sensor) is designed to detect shattering of glass and glass structures.

The sensor switches to the alarm mode when it detects the sound of glass breaking into a guarded site:

1. the sensor indicator blinks red once;
2. the sensor sends an alarm alert to the Livi Smart Hub (hereafter referred to as the hub).

An electret microphone is used to capture sounds and transfer data to the processor. The processor provides an analysis of the sounds and selectively identifies significant events. The sensitivity of the microphone can be adjusted to improve precision of detecting the glass shattering. An external wired reed switch can be connected (AND circuit).

SENSOR APPEARANCE
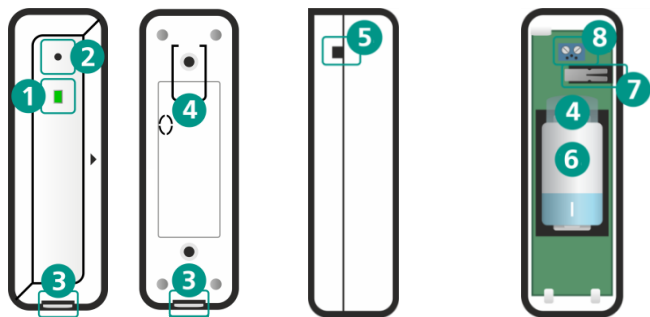
1. LED indicator
2. Electret microphone
3. Enclosure latch
4. Protective film
5. Plug
6. Battery
7. Tamper button
8. Terminals for connecting an external wired reed switch

BINDING THE SENSOR TO THE HUB

The sensor must be unpacked and allowed to reach room temperature for at least two hours before handling if it was transported or stored at low temperatures.

1. Pull the protective film out of the battery compartment. The sensor indicator will start blinking blue once the sensor is switched to the binding mode.
2. In the Livicom app, open the "Devices" screen. In the upper right corner of the screen tap ✚ and select "Add Device". The sensor indicator will blink green 5 times after successful binding.

The sensor switches to the binding mode only for 60 seconds. If you have not bound it to the hub within this period, remove the battery from the sensor (see below) for 30 seconds, and reinstall it (observing polarity). The sensor will switch to binding mode again.

REMOVING OR REPLACING THE BATTERY

- Open the sensor enclosure to remove or replace the battery: press one of the latches (3) on the short side of the enclosure using a flat-blade screwdriver, and then pull the lid up while pressing the latch.
- Remove the battery (6).
- Install a new CR123A battery (observing polarity) if necessary and close the sensor enclosure.

CHOOSING A LOCATION FOR THE SENSOR

The sensor can be mounted on a wall or on a ceiling. The optimal location for the device can be selected based on the glass break detection range and the number of windows and glass structures in the room.

DO NOT install the sensor outdoors, in places with high humidity, or at temperatures exceeding the operating temperature range (see "Specifications" table below).

EVALUATING SIGNAL STRENGTH

Check the quality of the connection between the sensor and the hub at the intended location of the sensor. There are two ways to evaluate the signal strength:

1. In the Livicom app, on the sensor settings screen.
2. With the help of the LED indication on the sensor. Double-click on the tamper button and look at the sensor indicator. Interpret the indication using the table below.

Good signal	The indicator blinks green 3 times
Average signal	The indicator blinks green twice
Poor signal	The indicator blinks green once
No connection	The indicator blinks red 4 times

SENSOR INSTALLATION

1. Open the sensor enclosure: press one of the latches (3) on the short side of the enclosure using a flat-blade screwdriver and then pull the lid up while pressing the latch.
2. Fasten the base of the sensor enclosure at the selected location using a supplied mounting kit.
3. Close the sensor enclosure.

CONNECTING AN EXTERNAL WIRED REED SWITCH

An external wired reed switch can be connected to the sensor (AND circuit).

Open the enclosure of the sensor (if it is closed) and connect the reed switch wires to the sensor terminals as shown on the connection diagram.

Break one of the plugs (5) in the sensor enclosure to make a hole for the reed switch wire.

CHECKING THE SENSOR OPERATION

Check the operation of the sensor after its installation. Enable full guard of the site through the Livicom app and wait for 5 minutes. Play a recording of glass breaking sound. Make sure that the sensor indication matches the information in the table "LED indication" and you see an alarm alert in the app.

Attention

The sensor does not monitor sounds when the guard is disabled, in order to extend battery life (in the Livicom app the sensor status will always be *OK* if the guard is disabled). The sensor requires from 3 to 5 minutes to switch to the standby mode and start monitoring sounds after the guard is enabled.

Contact technical support (mail to: support@livicom.ru) if you see an incorrect indication or do not receive the alert.

DELETING THE SENSOR (UNBINDING FROM THE HUB)

There are two ways to unbind the sensor from the hub:

1. In the Livicom app, on the sensor settings screen.
2. Using the tamper button (7). Remove the battery from the sensor for 30 seconds, then press the tamper button and while holding it, reinstall the battery, observing polarity. Release the tamper button and quickly click on it until the sensor indicator starts blinking blue.

SENSOR MAINTENANCE

Keep the sensor free of dust and dirt. Replace the battery as soon as possible after you receive a low battery notification in the Livicom app.

Do not wipe the sensor with substances containing alcohol, acetone, gasoline and other active solvents

SPECIFICATIONS

Operating frequency	868 MHz
Radio communication range*	1000 m
Radio channel power	25 mW
Period of sending test events to the hub	2 minutes
Microphone type	electret directional
Detection range of ordinary glass breaking	from 0,5 to 10 m
Detection range of tempered / shatterproof glass breaking	from 0,5 to 6 m
Glass break detection angle	180°
External reed switch wire length	up to 15 m
Current consumption in sleep mode	3 µA
Current consumption in standby mode (guard is enabled)	up to 35 µA
Current consumption in active mode (data is being transmitted on a radio channel)	up to 35 mA
Power source (3 V)	lithium battery CR123A
Battery life**	up to 10 years
Operating temperature range	from -20 to +55 °C
Relative humidity	no more than 80% at 25 °C
Dimensions	90 x 28 x 28 mm

* Radio communication range is the maximum distance between the hub and the sensor in line of sight and without interference.

** Battery life depends on the intensity of radio communication between the sensor and the hub. The maximum battery life can be achieved if the sensor is operated at the temperature of 25 °C, relative humidity no more than 80% and without vibration load.

SUPPLY SET

Livi GS glass break sensor	1
Mounting kit	1
Lithium battery CR123A (3 V)	1
Protective film for the battery	1
Packaging	1

LED INDICATION

Glass break is detected	The indicator blinks red once
The sensor has recovered after an alarm	The indicator blinks green once
Binding mode	The indicator blinks blue for 1 minute
Confirmation of successful binding	The indicator blinks green 5 times

WARRANTY

The manufacturer LLC "NPP Stels" guarantees that the sensor meets AGNS.421453.001 TU technical requirements, provided that the consumer complies with the conditions of transportation, storage, installation and operation. The warranty period is 5 years from the manufacturing date. The warranty does not apply to batteries.

The warranty does not cover the following cases:

1. Non-compliance with the intended operating conditions;
2. Mechanical damage to the sensor;
3. Repairs to the sensor by a third party (a person or a company other than the Manufacturer).