



Livi US universal sensor manual

DESCRIPTION

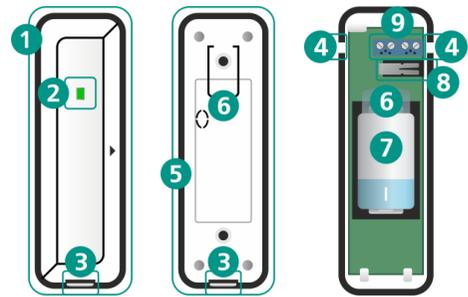
The Livi US universal sensor (hereafter referred to as the sensor) is designed to integrate any security, fire, emergency or technological sensors into the Livicom system. One sensor can be connected to two wired or standalone sensors with a wired voltage free alarm output. For example, the sensor can be connected to third-party outdoor security sensors, gas leakage sensors, threshold pressure sensors, level sensors, etc.

The sensor switches to the alarm mode when one of the connected sensors goes into alarm:

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

The [Livicom app](#) provides flexible settings for each input of the device: the user can specify types for connected sensors and enable / disable inversion in order to determine the normal state of connected sensors (NC contact or NO contact).

SENSOR APPEARANCE



1. Enclosure lid
2. LED indicator
3. Enclosure latch
4. Plug
5. Enclosure base
6. Protective film
7. Battery
8. Tamper button
9. Terminals for connecting third-party wired sensors

CHOOSING A LOCATION FOR THE SENSOR

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

When choosing the place for the device keep in mind that the length of wires between the device and connected sensors cannot exceed 3 m. We recommend placing wires away from sources of strong electromagnetic radiation in order to prevent false alarms from connected sensors.

SENSOR INSTALLATION

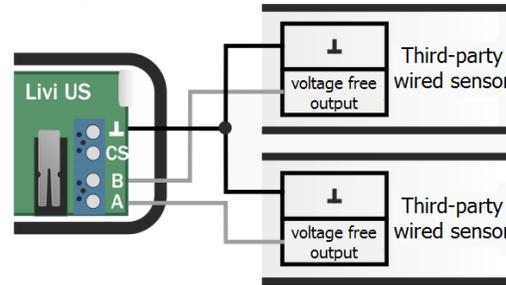
The sensor must be unpacked and allowed to reach room temperature for at least two hours before handling if it was transported or stored at low temperatures.

1. 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. Connect two wired or standalone sensors with a wired voltage free alarm output to the sensor terminals (9) as shown in connection diagrams below.
4. Break one of the plugs (4) in the device enclosure to make an opening for connected wires.
5. Close the sensor enclosure.

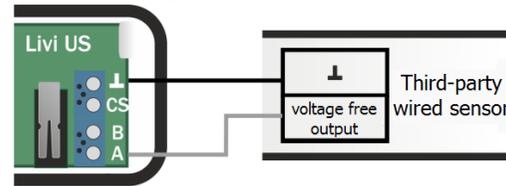
CONNECTION DIAGRAMS

The sensor can be connected only to voltage free alarm output of any third-party wired sensor.

Connect two third-party wired sensors to the device terminals (9) as shown in the connection diagram:



If you want to connect only one third-party wired sensor to the device, use the following connection diagram:



BINDING TO THE HUB

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".
3. Follow the instructions in the app to determine types of connected devices. 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 for 30 seconds, and reinstall it (observing polarity). The sensor will switch to binding mode again.

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

CHECKING THE SENSOR OPERATION

Check the operation of the sensor after its installation. Make sure that the sensor indication matches the information in the table "LED indication" when connected sensors go into alarm and recover after that.

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 (8). 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.

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
Number of voltage free inputs	2
Third-party sensor wire length	up to 3 m
Current consumption in sleep mode	4,5 µA
Current consumption in active mode	up to 30 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 US universal sensor	1
Mounting kit	1
Lithium battery CR123A (3 V)	1
Protective film for the battery	1
Packaging	1

LED INDICATION

One of connected sensors went into an alarm	The indicator blinks red once
One of connected sensors 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).