# Livi MS motion sensor

manual

LIVI

DESCRIPTION

The Livi MS passive optoelectronic infrared motion sensor (hereafter referred to as the sensor) is designed to detect intrusions into a Livicom site. The sensor switches to the alarm mode if it detects motion:

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).

By default, the sensor is not sensitive to pets weighing up to 20 kg (but the sensor will switch to the alarm mode if a pet of any weight climbs on a high object (1 m or higher) in the sensor detection zone.)

SENSOR APPEARANCE
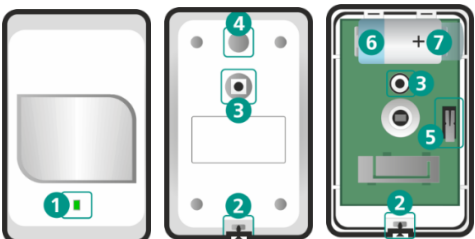
1. LED indicator
2. Retaining screw
3. Sensor mounting hole
4. Additional hole for mounting the sensor with screws
5. Tamper button
6. Battery
7. Protective film

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. Open the sensor enclosure: loosen the screw (2) at the bottom of the enclosure using a crosshead screwdriver, and then pull the lid up to open the enclosure.

DO NOT touch the lens with your fingers or tools when handling the sensor. Any dirt on the lens can lower the sensitivity of the sensor.

2. Pull the package with a bracket Livi Holder MS/MSW out of the sensor enclosure.
3. 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.
4. 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.
5. Close the lid and tighten the retaining screw at the bottom of the enclosure.

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.

## CHOOSING A LOCATION FOR THE SENSOR

We recommend installing the sensor on the wall at a height of 2.1 m. Choose the best location for the sensor with the help of detection zone diagrams presented below. **DO NOT** install the sensor:

- outdoors;
- exposed to direct sunlight;
- in front of objects with extreme temperature dynamics (for example, electric and gas heaters);
- in front of moving objects with a temperature close to that of a human body (for example, swinging curtains above a heating radiator);
- in places with intense airflow (e.g. near fans, radiators, and air ventilation ducts);
- in places with high humidity, or at temperatures exceeding the operating temperature range (see "Specifications" table below).

DETECTION ZONE DIAGRAM (TOP VIEW)
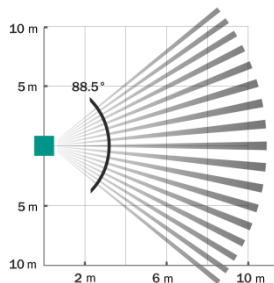
DETECTION ZONE DIAGRAM (SIDE VIEW)
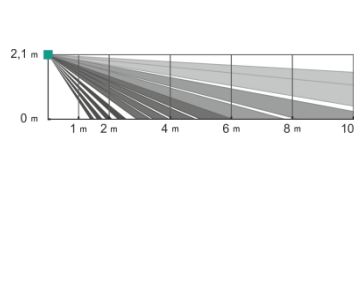
EVALUATING SIGNAL STRENGTH

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

There are three ways to mount the sensor:

1. With a double-sided tape from the supplied mounting kit.
2. With 2 screws from the supplied mounting kit:
   - open the sensor enclosure (if it is closed);
   - remove the battery and fasten the base of the enclosure at the selected location by twisting 2 screws in mounting holes (3) and (4) (note that the mounting hole (4) is covered with thin layer of plastic);
   - reinstall the battery, observing polarity, and close the sensor enclosure.
3. With a bracket Livi Holder MS/MSW from the supply set (if you want to mount the sensor on an uneven surface or set it at an angle to the surface):
   - open the sensor enclosure (if it is closed);
   - take the bracket out of its packaging, insert the sphere into the bracket base and fix the bracket base at a selected location with 2 screws from the supplied mounting kit;
   - place the sensor on the bracket and twist the sensor securing screw into the mounting hole (3) (do not tighten the screw);

   - adjust the sensor position and tighten the sensor securing screw;
   - close the sensor enclosure.

Visually check the lens after the sensor installation and, if necessary, clean all impurities

CHECKING THE SENSOR OPERATION

Check the operation of the sensor after its installation. Make sure that the LED indication matches the information in the "LED indication" table below when you move in the sensor detection zone. Then wait for the sensor to recover after alarm (no motion should be detected by the sensor for at least 10 seconds). Enable full guard of the site through the Livicom app. Make sure that you see an alarm alert in the app once you start moving through the sensor detection zone.

If the sensor does not detect all movements into the guarded site, then reinstall it in a different location or fasten it at a different angle to the wall. 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 (5). 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.

ATTENTION
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
Range of motion detection	10 m
Angle of motion detection	88,5°
Recommended installation height	2,1 m
Recovery period after an alarm (if no more motion is detected)	10 sec
Current consumption in sleep mode	5,5 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	95 x 60 x 43 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 MS motion sensor	1
Mounting bracket Livi Holder MS/MSW	1
Mounting kit	1
Lithium battery CR123A (3 V)	1
Protective film for the battery	1
Packaging	1

LED INDICATION

Motion detected	The indicator blinks red once
No more motion	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).