Thingsee

PRESENCE

User and Installation Guide

v.21.05

Haltian

Welcome to use Thingsee

Congratulations on choosing Haltian Thingsee as your IoT solution. We at Haltian want to make IoT easy and accessible for everyone, so we have created a solution platform that is easy to use, scalable and secure. I hope our solution will help you achieve your business goals!

Pasi Leipälä
CEO, Haltian Oy

Thingsee PRESENCE

Wireless sensor for measuring people presence through your facility.

Thingsee PRESENCE gives you information on people movement in your spaces. You can use the sensor for facility management, workspace occupancy and visitor count. The sensor uses a passive infrared sensor to detect movement in a specific area.

Sales package content

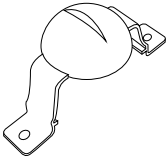
- Thingsee PRESENCE sensor
- 1 x Opening Key

Using Thingsee PRESENCE sensor

Sensor detects the movement based on body heat detection.

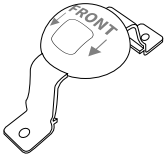
Using sensor for visitor counting

Sensor can be used for visitor counting in places like door ways and corridors. Thingsee Visitor Counter Dome is available for this purpose.



Using workspace occupancy detection

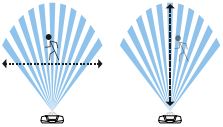
Thingsee PRESENCE can be installed under a table to detect the usage of a working space. Sensor sensitivity should be decreased to avoid unwanted detections outside the working space. This is possible with Thingsee Occupancy Dome.



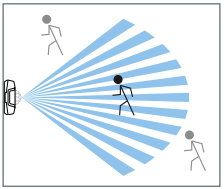
General installation instructions

Sensor is for indoor use only.

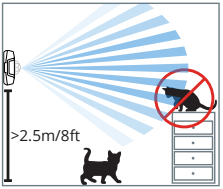
The sensor is more sensitive to movement across the sensor detecting area than towards the sensor.



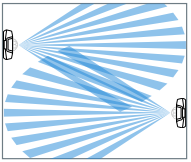
The sensor can only measure movement inside the detecting area.
It is not a volumetric sensor.



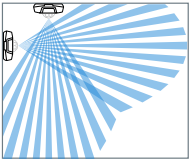
When attaching to a wall, place the sensor around 2/3rds of the wall height to avoid unnecessary detection of pets or other domestic animals. Sensor sensitivity can be also reduced in such cases.



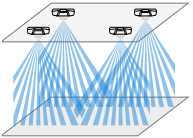
In a large area, use multiple sensors to cover all required movement.



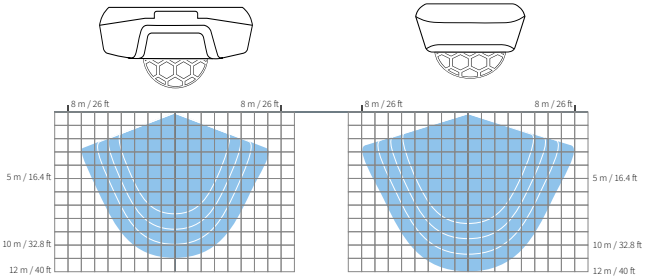
Sensors can also be placed either to a wall or to a ceiling.



If sensors are placed on a ceiling in a low height space, sensors should be placed close enough to each other to cover the entire detecting area.



Thingsee PRESENCE detection capability changes related to the height of the space. Following chart describes different distances. Adjusted sensitivity levels shown as white lines inside the maximum area are for illustration purposes only. Detection area changes related to sensor sensitivity level. Thingsee PRESENCE detects people movement in its detection area with maximum of 34 movements per minute despite the movement's direction or distance from the sensor.

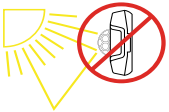


Things to avoid in installation

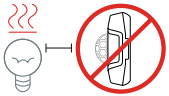
Avoid installing Thingsee products near the following:

Nearby heating or cooling devices and/or vents.

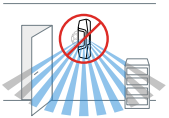
Direct sun light.



Nearby halogen lamps or similar lamps with hot surface.



Places where a door or a similar object can block the required detection area.

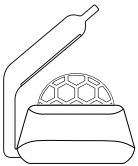


Attachment to surfaces which can vibrate as it may cause false functionality.

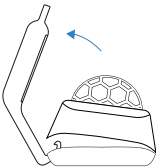
Changing the batteries

Open the sensor to change the batteries or reboot the device by replacing the batteries.

Place the opening key to the hole on the side of the sensor



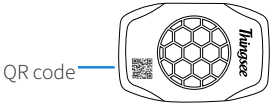
Bend the key to the direction shown



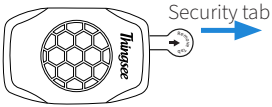
Installation

Please make sure the Thingsee gateway device is installed before you install the sensors.

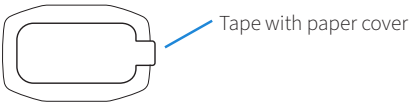
To identify the sensor, read the QR code on the backside of the device with a QR code reader or Thingsee installation application on your mobile device.
Identifying the device is not necessary, but it will help you keep track of your IoT installation and help Haltian support to solve possible issues.



Carefully pull out the battery security tab.
LED indicator (red) will flash once. If the LED doesn't flash within 2 minutes, tap the sensor against your palm. If you do not see the LED blink or see the events from the sensor within 5 minutes, re-install the batteries.



Clean the surface you will attach the sensor to with IPA -solvent (isopropyl alcohol).
Remove the tape's paper cover from the backside of the sensor.

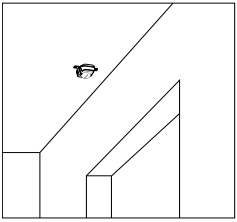


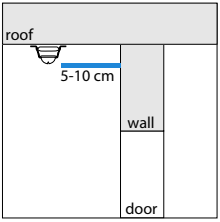
Attach the sensor to its place by pushing it firmly against the surface for a minimum of 5 seconds. Wipe the sensor with a dry, clean cloth.

Visitor counting

Installing the sensor to a ceiling

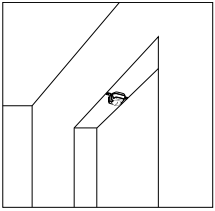
Place the sensor in the middle of the door opening, 5 to 10 cm from the wall. Make sure that there are no objects between the sensor and the area to be detected.

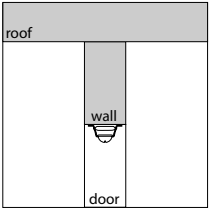




Installing the sensor to a door opening

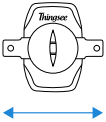
Install Thingsee PRESENCE sensor to the top middle of the door opening. Make sure that there are no objects between the sensor and the area to be detected.





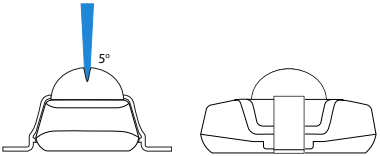
Movement direction

The sensor should be installed related to the visitor movement direction as shown in the image.

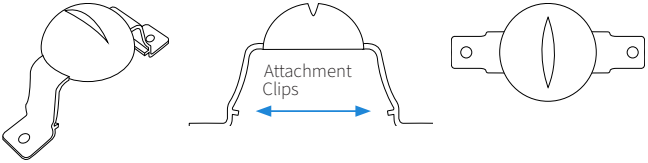


Using Visitor Counter Dome

The detection beam can easily be adjusted with a separate, easy to install, Visitor Counter Dome.
It makes the detection beam more accurate.

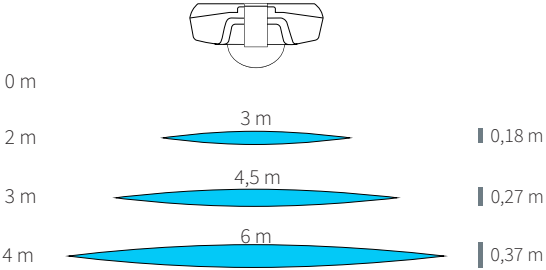


Note that with the Dome, the detection area is narrowed related to the long side of the Thingsee PRESENCE sensor.



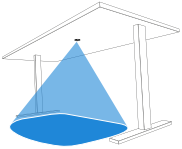
Detection area shape

Detection area shape and dimension related to the most common installation distances.



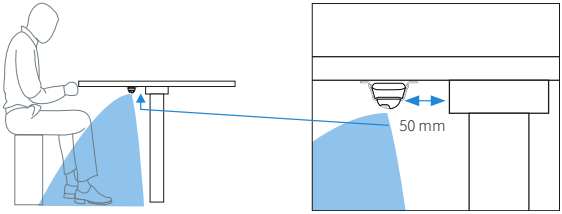
Workplace occupancy detection

Thingsee PRESENCE can be installed under a table to detect the usage of a working space. Sensor sensitivity should be decreased to avoid unwanted detections outside the working space.



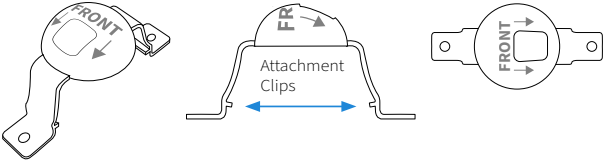
Installing the sensor under a table

Install Thingsee PRESENCE under the table as middle as possible. If there are any objects, such as table legs, under the table, place the sensor on the user side of the object. Make sure there is **50 mm** gap between Thingsee PRESENSE and the object so that it can be easily maintained.



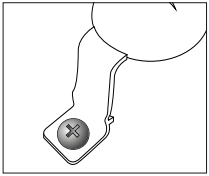
Using Workplace Occupancy Dome

The detection beam can easily be adjusted with a separate, easy to install, Workplace Occupancy Dome. The detection beam is more accurate when the hole on top of the sensor is facing front.

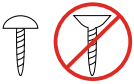


Good to know about installing the Dome

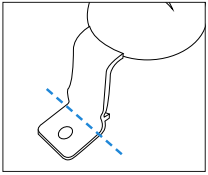
The Dome can be attached with screws to ensure the installation.



Use a correct screw type!



When using the attachment clips only, the screw attachement parts can be cut off.



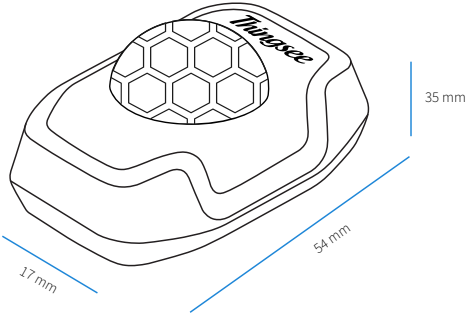
Do not damage attachment clips while cutting!

Device info

Operating temperature: -20 °C … +50 °C
Operating humidity: 0 % … 100 % RH non-condensing
Storage temperature: 0 °C … +25 °C
Storage humidity: 45 % … 60 % RH non-condensing
IP rating grade: IP40
Certifications: CE, FCC, ISED, RoHS and RCM compliant
Battery type: 2 x AAA, replaceable
Expected battery life:
• Up to 5 years, with standard firmware
Radio sensitivity: -95 dBm (BTLE)
LED light for confirmation purposes
Adjustable sensor sensitivity

Device measurements

Weight:
37 g (including batteries)



Default functionality and configuration

Reports an indicative count of detected movements every 1 minute
Max count per minute is 34 events
The device LED blinks (red) once when starting up
Radio connectivity: Wirepas Mesh
The following parameters are configurable remotely over Thingsee Operations Cloud

- Reporting interval
- Sensor sensitivity level

Mesh network node role configuration

- Routing
- Non-routing

Movement indication LED ON/OFF

For further information, please refer to Haltian support pages at:
https://support.haltian.com/

CERTIFICATION IN CERTIFICATION INFORMATION
EU DECLARATION OF CONFORMITY

Hereby, Haltian Products Oy declares that the radio equipment Thingsee PRESENCE is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.haltian.com

Haltian Products Oy vakuuttaa, etta radiolaitetyyppi Thingsee PRESENCE on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.haltian.com

Thingsee PRESENCE operates at Bluetooth® 2.4 GHz frequency band. Maximum radio-frequency power transmitted is +4.0 dBm.

Manufacturer name and address:
Haltian Products Oy
Yrttipellontie 1 D
90230 Oulu
Finland

FCC REQUIREMENTS FOR OPERATION IN THE UNITED STATES
FCC Information for the User
This product does not contain any user serviceable components and is to be used with approved, internal antennas only. Any product changes of modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for human Exposure
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radio Frequency Interference Warnings & Instructions
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 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 methods:
Increase the separation between the equipment and the receiver.
Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected
Consult the dealer or and experienced radio/TV technician for help
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC compliance statement:
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.

Innovation, Science and Economic Development Canada (ISED) regulatory information
This device complies with RSS-247 of the Innovation, Science and Economic Development Canada (ISED) 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.

Ce dispositif est conforme à la nor me CNR-247 d'Innovation, Sciences et Développent économique Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable

Radiation Exposure Statement :
This device complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and used with a minimum distance of 20 cm between the radiator and your body.

NOTE IMPORTANTE: Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 220 cm entre le radiateur et votre corps.
FCC ID: 2AEU3TSPRE
IC ID: 20236-TSPRE

RCM-approved for Australia and New Zealand.

SAFETY GUIDE

Read these simple guidelines. Not following them may be dangerous or against local laws and regulations. For further information, read the user guide and visit www.haltian.com

Usage
Do not cover the device as it prevents the device from operating properly.
- This product is intended for indoor use only and shall not be exposed to rain.
- Do not modify the device. Unauthorized modifications may damage the device and violate regulations governing radio devices.
- Do not store the device in wet or humid conditions.
- Remove the batteries from the device if you are taking it inside an aeroplane (unless you have the pre-installed pull- out tape still in place). The device has a Bluetooth LE receiver/transmitter which must not be operational during a flight.
- Please take care that the used batteries are recycled by taking them to appropriate collection point.
- When changing batteries, replace both of them at the same time using identical brand and type.
- Do not swallow batteries.
- Do not throw batteries into water or fire.
- Do not short-circuit batteries.
- Do not try to charge primary batteries.
- Do not open or disassemble batteries.
- Batteries should be stored in a dry place and at room temperature. Avoid large temperature changes and direct sunlight. At higher temperature the electrical performance of the batteries may be reduced.
- Keep batteries away from children.

Care and maintenance
Handle your device with care. The following suggestions help you keep your device operational.
- Do not open the device other than as instructed in the user guide.
- Unauthorized modifications may damage the device and violate regulations governing radio devices.
- Do not drop, knock, or shake the device. Rough handling can break it.
- Only use a soft, clean, dry cloth to clean the surface of the device. Do not clean the device with solvents, toxic chemicals or strong detergents as they may damage your device and void the warranty.
- Do not paint the device. Paint can prevent proper operation.

Damage
If the device is damaged contact support@haltian.com. Only qualified personnel may repair this device.

Small children
Your device is not a toy. It may contain small parts. Keep them out of the reach of small children.

RECYCLING

Check the local regulations for proper disposal of electronic products. The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003, resulted in a major change in the treatment of electrical equipment at end-of-life. The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal.
The crossed-out wheelie-bin symbol on your product, battery, literature, or packaging reminds you that all electrical and electronic products and batteries must be taken to separate collection at the end of their working life. Do not dispose of these products as unsorted municipal waste: take them for recycling. For info on your nearest recycling point, check with your local waste authority.

Innovation, Science and Economic Development Canada
Innovation, Sciences et Développement économique Canada

Get to know other Thingsee devices

Thingsee PRESENCE

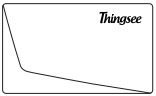
Thingsee ENVIRONMENT

Thingsee BEAM

Thingsee ENVIRONMENT RUGGED

Thingsee LEAKAGE RUGGED

Thingsee ANGLE RUGGED



Thingsee AIR

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Thingsee GATEWAY GLOBAL

Thingsee GATEWAY LAN

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