



Haltian Thingsee COUNT IoT Sensor Device User Guide

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Haltian Thingsee COUNT IoT Sensor Device



Welcome to using 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!

CEO, Haltian Oy

Thingsee COUNT



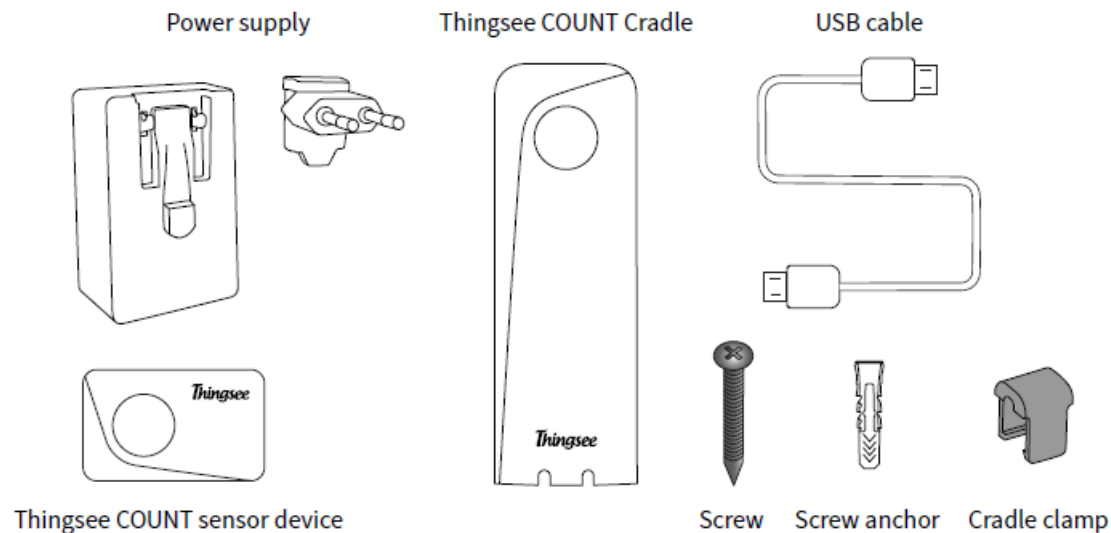
Thingsee COUNT is an IoT sensor device that detects movement beneath the device and reports the amount of times movement has been detected as well as the movement direction. Thingsee COUNT can be used for various facility management applications related to utilisation rate, visitor counting, statistics, etc. Thingsee COUNT is a part of Haltian Thingsee IoT solution and product family.

Sales package content

- Thingsee COUNT sensor device
- Thingsee COUNT Cradle
- 1 x screw, 1 x screw anchor and 1 x Cradle clamp (found underneath the Cradle)
- USB cable (length: 3 m)
- Power supply
- Power outlet adaptor for the power supply (specific to your region)

Note: Each sensor device and Cradle inside a package is a pair, and should always be used together. Do not mix

parts from other packages.



Needed for installation

- A power drill with a long (at least 11,5 cm), Torx type screwdriver is needed to attach the Cradle to a wall.
- E.g. a ladder to install the device above the passageway.
- Installation application from Haltian or other QR code reader application to identify the sensor device.
- Thingsee INSTALLER application (Android & iOS) to identify the sensor device and configure the direction

Using Thingsee COUNT sensor device

Thingsee COUNT is installed above a doorway or other passage from where it detects movement that passes beneath the device. Thingsee COUNT consists of a sensor device unit and a cradle that houses the sensor and prevents the power cable from straining and pulling off. The device is powered by an external power source via a USB connector.

A typical use case for Thingsee COUNT is visitor counting and utilization monitoring for e.g. meeting rooms or other spaces. In general, the device can be placed in any passageway within the limits of the sensor detection capability. Refer to chapter Detection Capability for detailed information. Thingsee COUNT determines the direction of the movement when, for example, people enter and exit a room. The direction is configured during the installation using the Thingsee INSTALLER application so that the device knows which side is regarded as moving into the space. The other side is automatically regarded as moving out.

General installation instructions

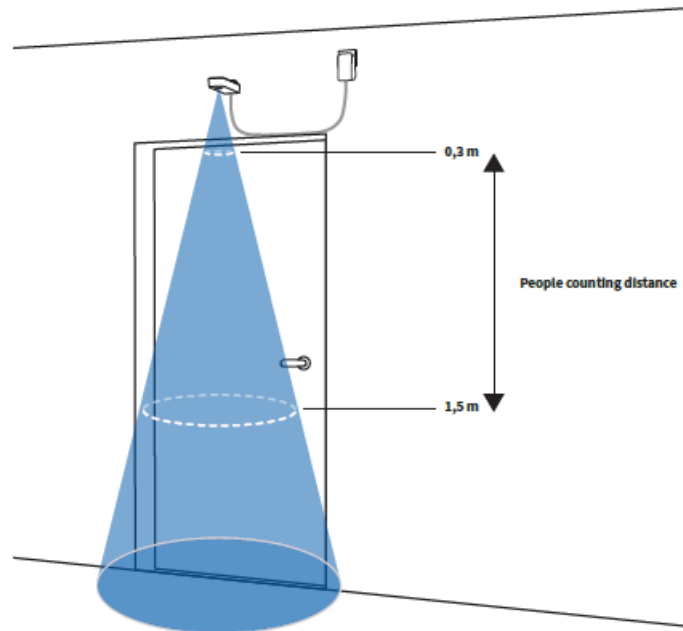
Selecting the installation spot

Select the installation spot on a wall or other solid surface directly above and in the middle of the passageway (max width 1000mm and max height 2100mm), so that the device cradle can be installed straight and pointing downwards at a 90 degrees angle. Make sure that you have an applicable power outlet near the installation spot.

Note: If the electricity is cut off mid usage the sensor's counter will reset to zero. The recommended installation height is 230 cm from the floor. In addition, if the passageway has a door, install the device to the side to which the door does not open so that the door's movements are not registered by the device. If the door has a door pump, also make sure that the pump mechanism's movements are not registered by the device.

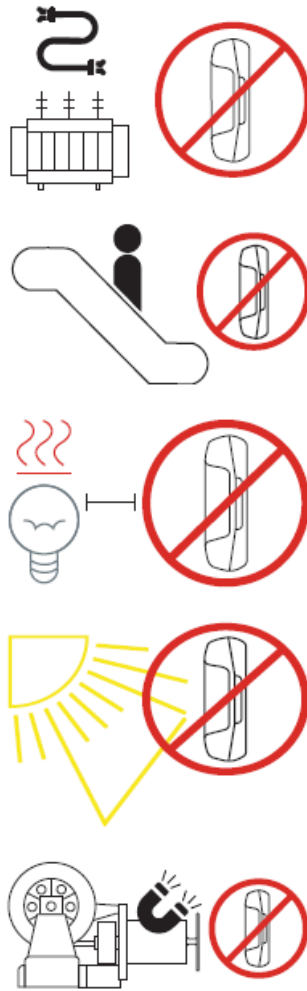
Note: Make sure there are no electrical wires, other cables, water pipes or similar beneath the installation surface.

If in doubt, consult your facility manager first.



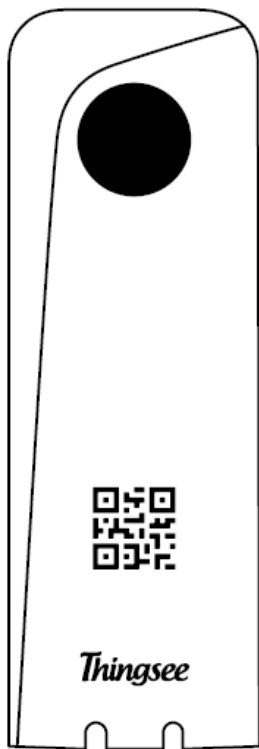
Things to avoid in installation

- Avoid installing the Thingsee products near the following:
- Electrical transformers or thick electrical wires
- Escalators
- Nearby halogen lamps, fluorescent lamps or similar lamps with hot surface
- Direct sun light or bright spotlight hitting the sensor as it may interfere with the laser beam and give inaccurate results.
- Near elevator motors or similar targets causing a strong magnetic field

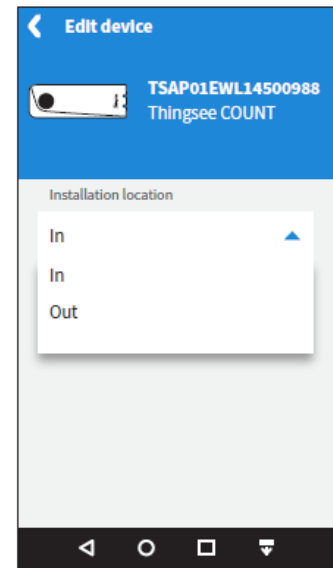
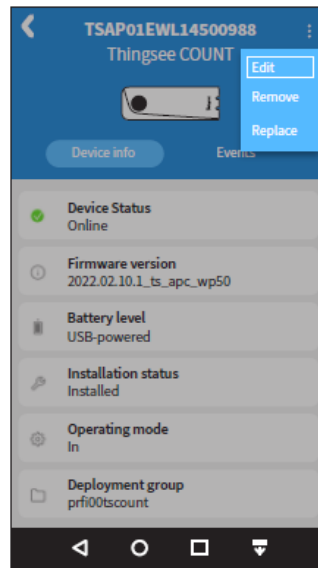


Installation

Please make sure the Thingsee gateway device is installed before you install the sensors. Open the Thingsee INSTALLER application on your mobile device and read the QR code on the front of the device. Select the location (IN/OUT) according to the device installation location (inside of the meeting room door or outside of the meeting room door).



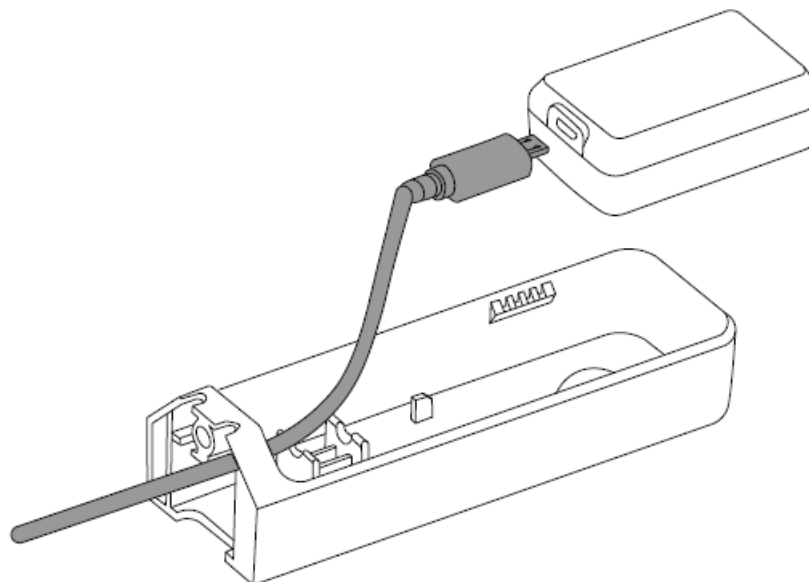
— QR code



Note: Make sure the sensor is installed max. 20 meters from the next sensor or gateway. This is to ensure full coverage mesh network between the sensors and the gateway.

Installing the USB cable to Thingsee Count through the Cradle hole

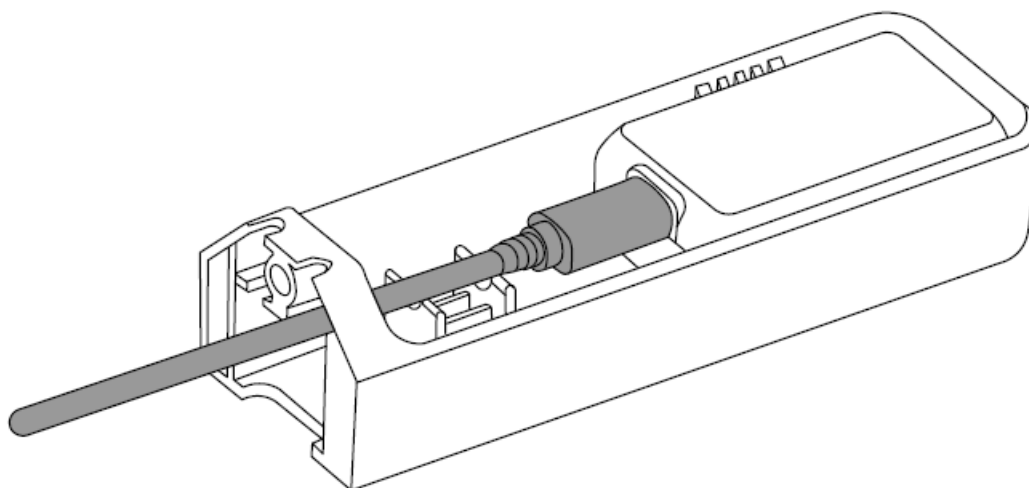
Run the USB cable through the Cradle's holder and then install the USB cable to the sensor device unit. Make sure the USB cable's connector springs are upwards as shown in the image when connecting.



To remove any fingerprints or dirt on the sensor unit's 'eyeball', wipe it with a dry, clean and lint-free cloth.

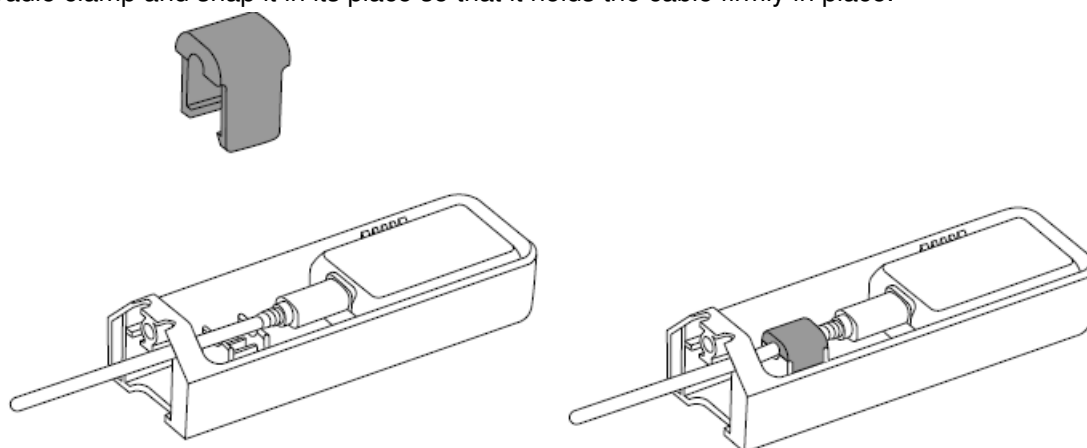
Installing Thingsee Count to Cradle

Install the sensor unit to the Cradle. You should hear a subtle snap sound once the sensor sits firmly in place between the two claws. Now, you can route the USB cable upwards or downwards at the end of the Cradle so that the cable is not squeezed between the cradle and the installation surface.



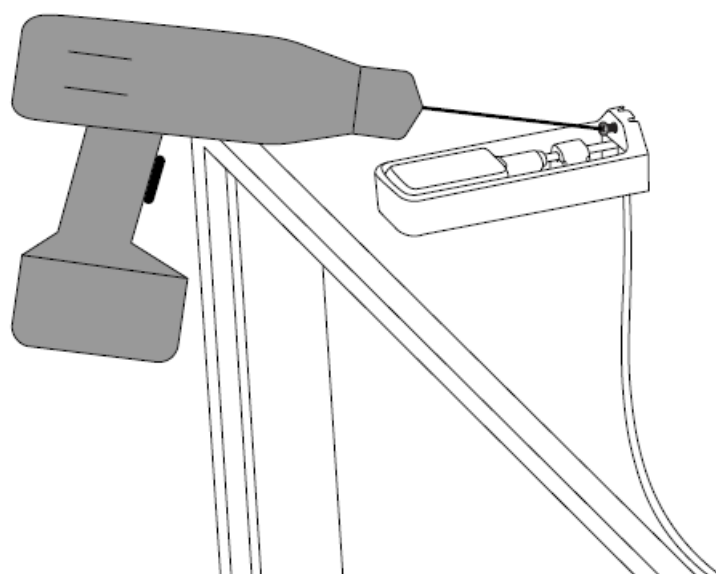
Installing the Cradle clamp

Put the USB cable to the clamp groove. The cable should be straight, not strained, but without any excess slack. Take the Cradle clamp and snap it in its place so that it holds the cable firmly in place.

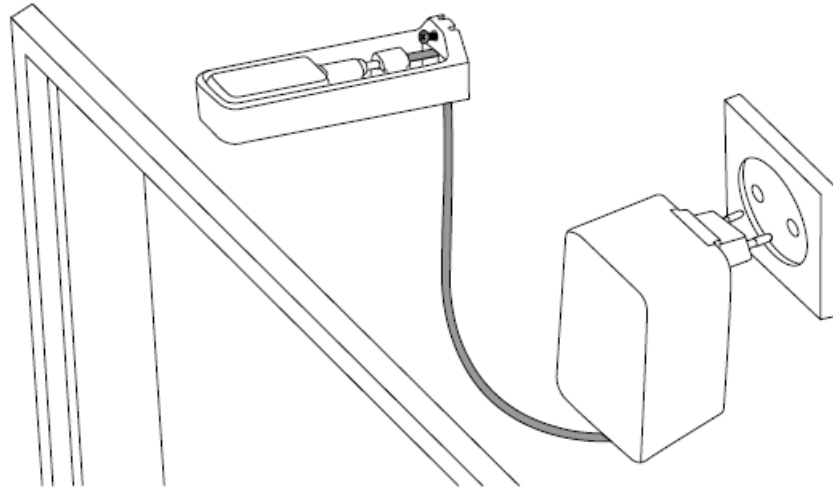


Installing the Cradle with the Thingsee Count to a wall

Use a long, Torx model screwdriver to screw the cradle to your selected installation spot.

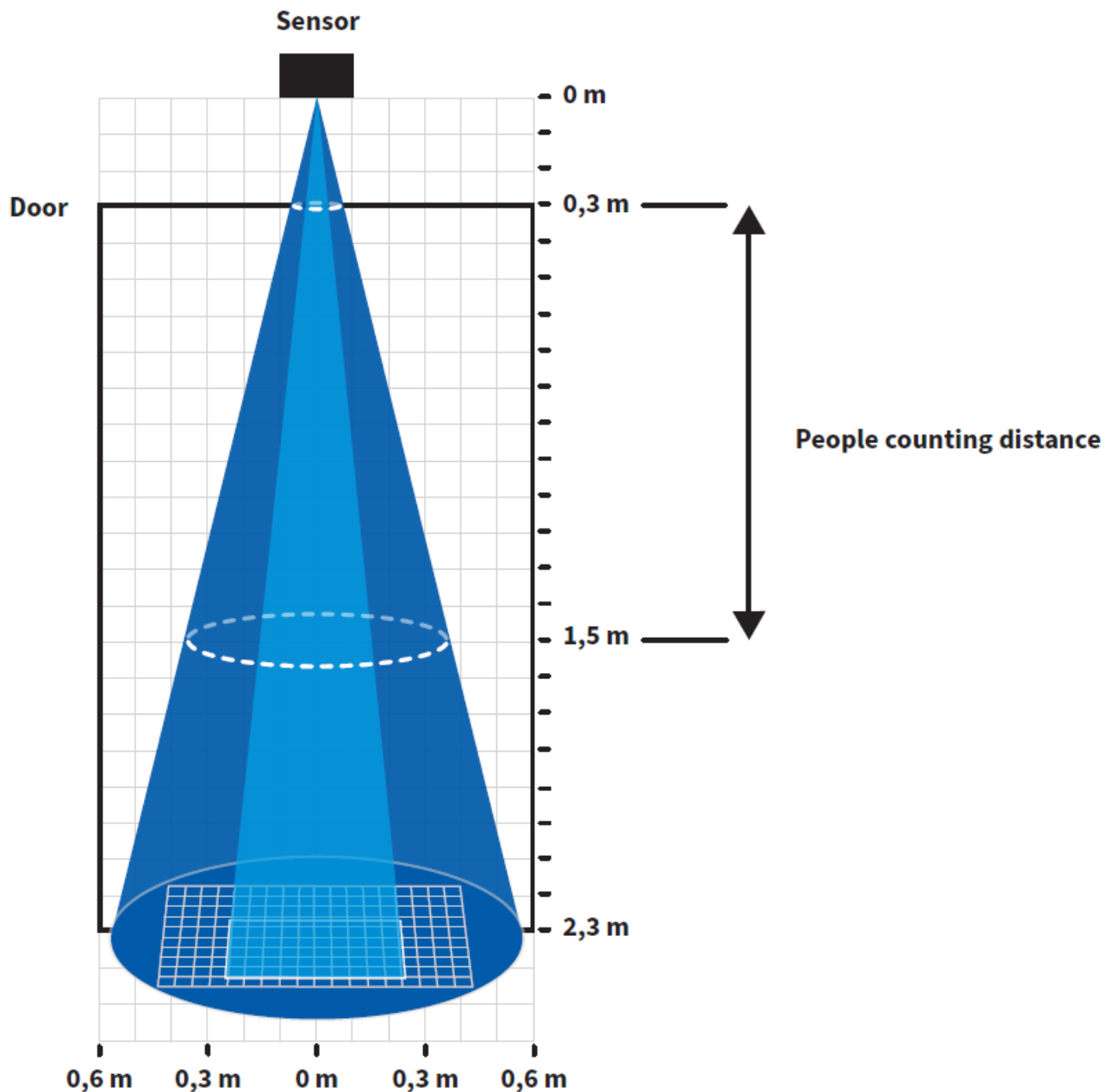


Connect the USB cable to the power supply and connect the power supply to an applicable power outlet.



Detection capability

- Vertical measurement range: 300 mm – 1500 mm. Note that the device will not detect movement in very wide passageways or corridors if the movement is outside the vertical detection range.
- Sequential movements beneath the sensor require approximately 500 mm of space between them to be detected as separate, individual movements.
- The measurement accuracy depends on the ambient light conditions and target reflectance. Test materials used: solid, matte, white, 140 mm reference distance.
- The sensing area is a cone shape, non-adjustable, between +/- 13,5 degrees angle, region of interest (ROI).



Default measurement and reporting

- When a movement is detected, the first update is sent immediately and then the changes are reported every 30 seconds
- Even if no movement has been detected the sensor also reports every 1 hour
- The sensor is in low latency mode enabling fast reaction and response time

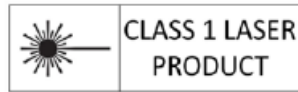
The following parameters are configurable remotely over Thingsee Operations Cloud:

- Reporting interval. The reporting interval range is from about 10 seconds to about 2 000 000 000 seconds. The default value is 3600s
- Mesh network node role: routing or non-routing

Device info

- Operating temperature 0 °C ... +40 °C

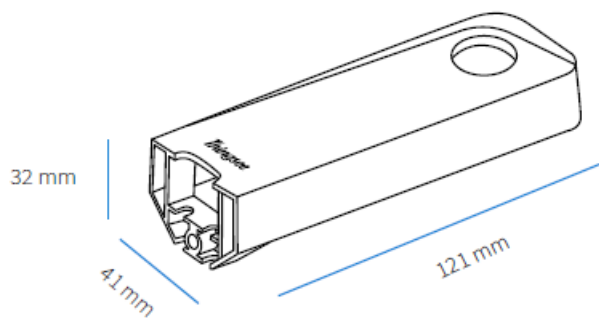
- Operating humidity 8 % ... 90 % RH non-condensing Storage temperature +5 °C ... +25 °C
- Storage humidity 45 % ... 85 % RH non-condensing IP rating grade: IP40
- **Certifications:** CE, FCC, ISED, RoHS and RCM compliant Class 1 laser (safe under all conditions of normal use) Radio sensitivity: -95 dBm (BTLE)



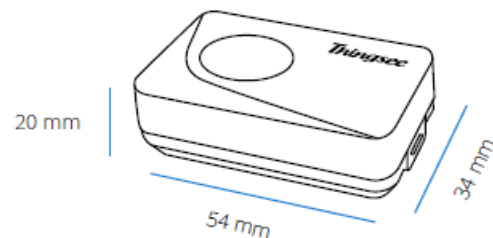
More device info can be found at support.haltian.com

Device measurements

Weight: 39 g



Weight: 16 g



CERTIFICATION INFORMATION

EU DECLARATION OF CONFORMITY

Please note that Thingsee Beam certifications are used also for Thingsee Count for the RF characteristics. Needed EMC and Safety tests have been performed because of the additions of TSCB, USB charger, USB cable and device holder. Hereby, Haltian Oy declares that the equipment type TSCB is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://haltian.com>

FCC REQUIREMENTS FOR OPERATION IN THE UNITED STATES

Supplier's Declaration of Conformity This Declaration of Conformity is hereby issued according to Chapter 1, Subpart A, Part 2 of Title 47 of the Code of Federal Regulations by: Haltian Oy Yrtytököntie 1 D, 90230 Oulu, Finland The product Thingsee Count B cover/TSCB complies with the applicable requirements of FCC Rule Part 15 RESPONSIBLE PARTY located in the United States: Violette Engineering Corporation 6731 Whittier Avenue McLean, VA 22101 info@violettecorp.com The responsible party warrants that each unit of equipment marketed under this Declaration of Conformity will be identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under such Supplier's Declaration of Conformity continue to comply within the variation that can be expected due to quantity production and testing on a statistical basis.

Industry Canada:

Industry Canada Compliance Statement This Class B digital apparatus complies with Canadian ICES-003.

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. The operating temperature range for the device is 0...+40 °C.
- 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.

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 wheellie-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.

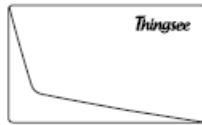
Get to know other Thingsee devices



Thingsee PRESENCE



Thingsee ENVIRONMENT



Thingsee AIR



Thingsee BEAM



Thingsee ENVIRONMENT
RUGGED



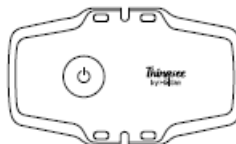
Thingsee LEAKAGE
RUGGED



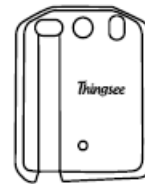
Thingsee ANGLE
RUGGED



Thingsee
COUNT





Thingsee GATEWAY
GLOBAL



Thingsee GATEWAY
LAN

For all devices and more information, visit our website www.haltian.com or contact sales@haltian.com

Documents / Resources

 User and Installation Guide v. 2.0.0 	Haltian Thingsee COUNT IoT Sensor Device [pdf] User Guide Thingsee COUNT, IoT Sensor Device, Thingsee COUNT IoT Sensor Device, Sensor Device
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References

- [Technical information and FAQs | Haltian Support](#)
- [Connected solutions for successful businesses | Haltian](#)
- [Connected solutions for successful businesses | Haltian](#)