

iotspot product sheet

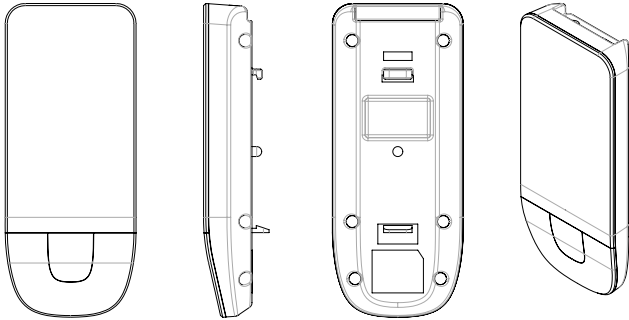
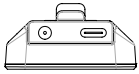


Fig. 1 People Count Sensor UC2

Functional description: People Count Sensor UC2

The People Count Sensor (PCS) of iotspot is a sensor dedicated to counting the number of people in a room or area. The data is transmitted to the platform's database using the internet connectivity of the iotspot device to which the sensor is 'paired'. The device is equipped with an optical sensor and embedded intelligence, allowing accurate and precise data collection, whilst having the smallest and most discreet design. Image processing takes place inside each sensor in real time and only the meta data (i.e. count) is transmitted via Bluetooth to the assigned iotspot.

Technical specifications of UC2

Normal version and Wide version

There are two versions of the sensor: the Normal (UC2-N) and Wide-angle (UC2-W). Its applicability depends on the type, size, shape of the room/area you wish to monitor and can be assessed using the figures 5-7,9-11. Broadly speaking the Wide-angle version should be used for more cramped rooms/areas and the Normal version for more spacious ones.

Mechanics & design

Housing material: Plastic
Color: White
Optical field of view (N): 600 x 350 @ 10m.
Optical field of view (W): 840 x 450 @ 7m.
Light level required: 20 – 10.000 lux
Detection speed: 1-10 fps
The sensor is designed for indoor use only
Operating temperature range: 0°C to 40°C

Size & weight

Sensor: 120 x 52 x 22,5 mm, 72g.
Steel ceiling/wall mounting bracket: 76 x 43 x 21 mm., 13g
Steel L-Shape mounting bracket (L-shape): 60 x 36 x 28mm., 13g

Band and mode / Output power

Bluetooth 2.4 GHz: 34 dBm
WiFi 2.4/5 GHz for tethering

Power

Power input: 12V/1A DC jack 5V/2A USB-C
Alt. PoE+ (standard 802.3at)
Power adapter:
AC 100-240V, EU plug
Power consumption: 2W peak

Scalability

Room measurement: 1 PCS per 30 sqm meeting room
Area measurement: 1 PCS per 30 sqm
The PCS requires a iotspot device in a 1:1 relationship to transmit its measurements

Package content

1 People Count Sensor
1 Wall mount (N @ 30% and W @ 45%)
2 4mm x 30mm screws
2 4mm wall plugs
1 USB type A to USB type C cable (3m)
1 USB power adapter with US/UK/EU plug
NOT INCLUDED: the iotspot device for internet connectivity

Certification

HS-Code: 9031 80 00 00
HST: 8517 69 90 00
ECCN: 3A001.a.3

Certifications

Type approved: CE and FCC

Proprietary rights

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1. Preparations

Before installing and using the People Count Sensor (PCS) determine the required version (i.e. Normal or Wide-angle) using figures 5-7,9-11. Thereafter, read the safety, installation and operation instructions to ensure proper use. You can view these instructions on our website www.iotspot.co and in case of questions, contact us at support@iotspot.co. Please note, that iotspot can not guarantee proper functioning of the device nor provide support in case this product is used or installed differently than indicated in our documentation.

2. Intended use

The People Count Sensor (PCS) intended use is to register how many people are present in a room or an area as related to an office building. The sensor extracts meta information about the number of 'silhouettes' registered by the device. The PCS is equipped with intelligent motion sensing and artificial intelligence to process the registered silhouettes, extract the count data and transmit these meta data. The silhouette registrations are never stored or transmitted by the sensor.

3. People Count Sensor, i.e. the product

The product's function is fourfold:

1. Executing the sensor assessment, i.e. registering and extracting the number of silhouettes in the room/area of observation;
2. Sending the 'sensor payload' over Bluetooth connectivity to the paired iotspot device;
3. Receiving a 'iotspot pairing payload' and/or a 'configuration payload' over Bluetooth connectivity from a smartphone; and
4. Updating its firmware over the internet by tethering with an internet connected smart device using the iotspot setup app that is installed on that device.

4. Mounting and commissioning

The sensor should be installed vertically on a non-slanting wall at a height of between 2,0 to 2,5 m. in one the corners at the shorter wall side 'aimed' along-side the longer wall side. Considering the sensor field-of-view and 'blind side' (see figure 5-7,9-11) mount the PCS at 2,0 m. for cramped rooms (W) and towards 2,5m. in more spacious rooms (N). Make sure the sensor has adequate/free visual range to cover the desired area of observation and is positioned within 2,5 m. of a 100-240V power supply socket.

Once the best position is determined, double check if the USB-cable fits between power socket and sensor. Then mount the bracket in vertical position with the folded side away from the longer wall side using the screws and plug or with alternative resources of your choosing (see figure 4 & 8). Click the PCS into the two brackets with the lens pointing downwards and the USB-micro plug pointing towards the ceiling (see figure 3). Thereafter, connect the USB cable to the PCS and the adapter and power up the USB adapter. Please note that the sensor performance may be limited by either poor lighting conditions or too bright lighting conditions.

5. Activation

The product is configured, using a smartphone app ('iotspot setup-app' in Google's PlayStore or Apple's Appstore). In essence this setup app allows you to synchronize the sensor to a iotspot device, so that the sensory data is transmitted to the smart workspace platform. Once the configuration of the product is finalized the sensor data can be displayed in dashboards or accessed as raw data. Please refer to our help topics for the most recent description of this activation process: <https://iotspot.zendesk.com/hc/en-nl/articles/360019001339-How-to-pair-the-people-counting-sensor-with-iotspot>

6. People Count Dashboard

The People Count data as registered by the sensor are shown in iotspot's dashboard, that can be accessed in the Control Center under the menu item 'Dashboards / PeopleCount dashboard'.

7. Maintenance & Care

The device housing can be wiped for dust or cleaned with a damp cloth if needed. Do not use cleaning agents.

8. Disposal

Electrical and electronic equipment, accessories and packaging must be recycled in an environmentally compatible manner. Do not dispose of electrical and electronic equipment as domestic waste.

Valued customer, iotspot has designed their hardware with an eye to recyclability and is willing to contribute their effort to sustainability. Therefore, feel free to inform with iotspot, how we are willing to support you in disposing of our hardware.

EU countries only: under the current European Directive on Waste Electrical and Electronic Equipment and its implementation in national law, electrical and electronic equipment no longer suitable for use must be collected separately and recycled in an environmentally compatible manner.

Warranty

A warranty period of 12 months applies to the product, commencing on the first day of use of the product. The warranty solely covers inadequacies caused by material defect or manufacturing defect. The warranty does not cover any unauthorized use or tampering with the product, such as product overloading, use of violence or force, damage as a result of any unauthorized interference or caused by foreign items. Failing to follow the safe conditions or safe installation condition instructions and common wear are also not included in the guarantee. Visit <https://www.iotspot.co/terms-and-conditions> to view more about the terms, conditions and guarantee of this product.

People Count Sensor

Mounting

Mounting

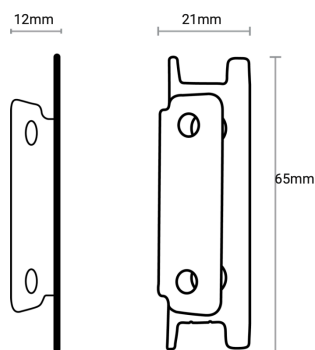


Fig. 2 Wall bracket

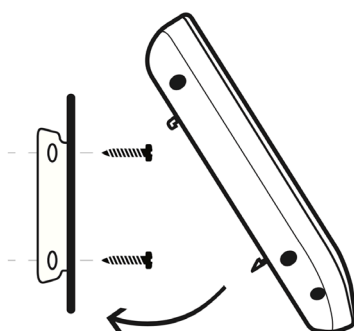


Fig. 3 Click Sensor into Bracket

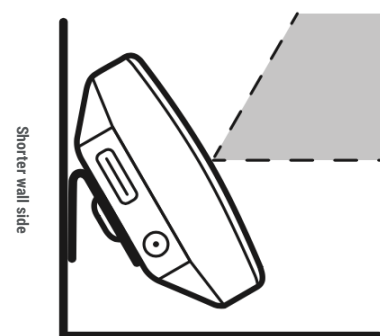
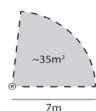


Fig. 4 Mounting position

WIDE VIEW

Sensor range	7m
Wall mount angle	45°
Horizontal field of view	84°
Vertical field of view	45°
Area covered	~35m ²



Top view

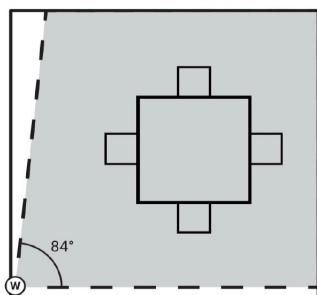


Fig. 5 Field of View - Top View

Side view

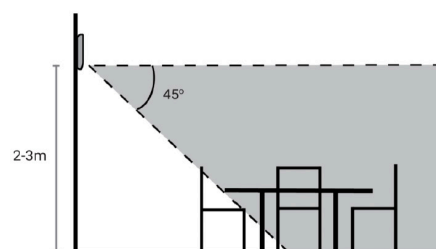


Fig. 6 Field of View- Side View

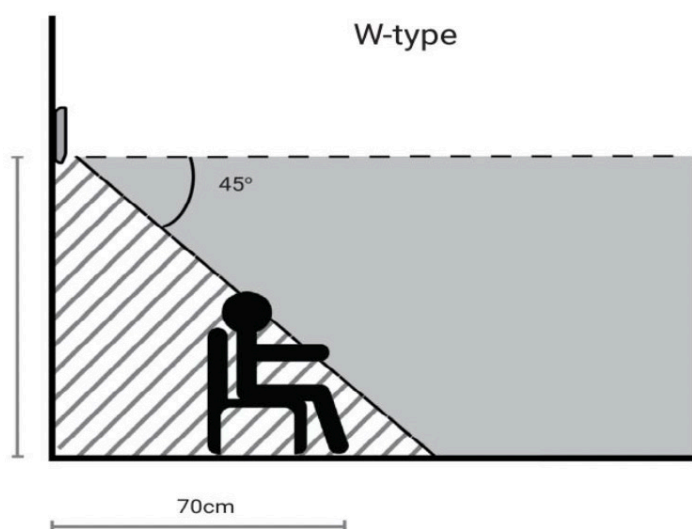


Fig. 7 Blind zone PCS

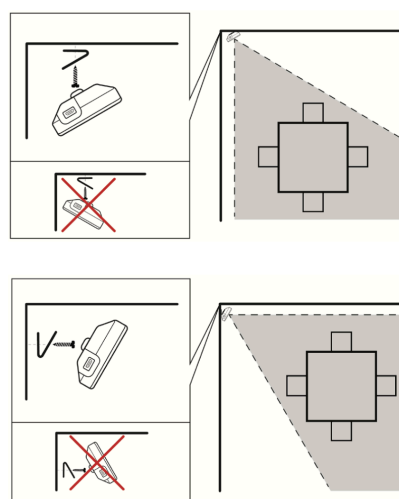
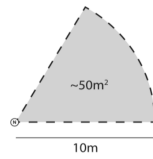


Fig. 8 Mounting options short/long side

NARROW VIEW

Sensor range	10m
Wall mount angle	30°
Horizontal field of view	60°
Vertical field of view	35°
Area covered	~50m ²



Top view

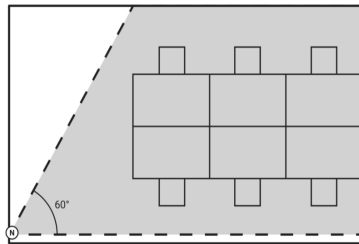


Fig. 9 Field of View - Top View - Narrow

Side view

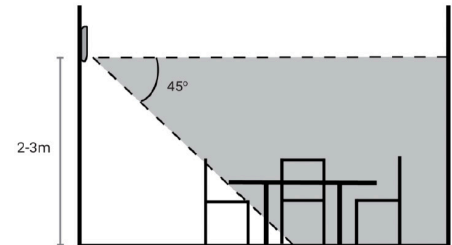


Fig. 10 Field of View- Side View - Narrow

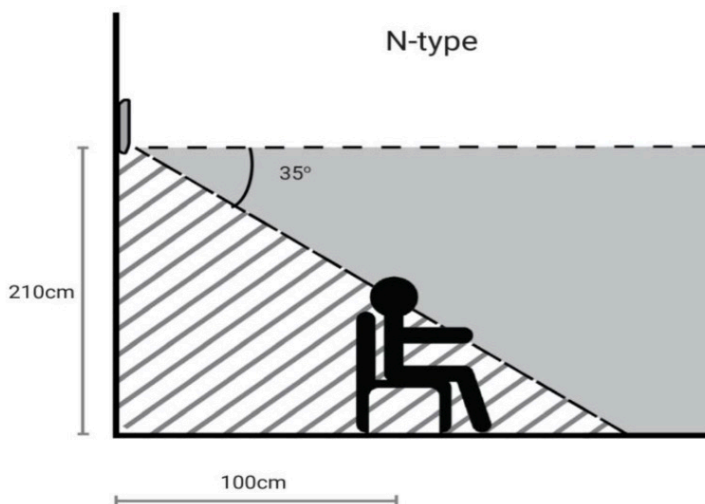


Fig. 11 Blind zone PCS - Narrow