

senses for tomorrow

New products for 2018

senses for tomorrow.

**The intelligent building of tomorrow will have entirely new capabilities. It will be more efficient, healthier, safer and more comfortable.**

It will know what is going inside and outside. It will react, learn, and control itself and optimise its performance and it will open up entirely new opportunities for its inhabitants. The new revolutionary sensors from STEINEL SYSTEMS\* such as True Presence® and the optical sensor HPD2 are the basis for building intelligence solutions that go way beyond simple illumination control. Check out two other highlights: The RS PRO Connect 5100 LED is the ideal diffuser luminaire with advanced Bluetooth technology for configuring and interconnecting the lights.

The DL Vario Quattro Pro LED is a world first outdoor light with 4 separately adjustable infrared sensors that lets you detect objects exactly where you want.

This makes switching errors a thing of the past.

**We hope you enjoy the STEINEL New products for 2018 – be inspired!**

# True Presence® People at the centre of a digital sensor revolution.

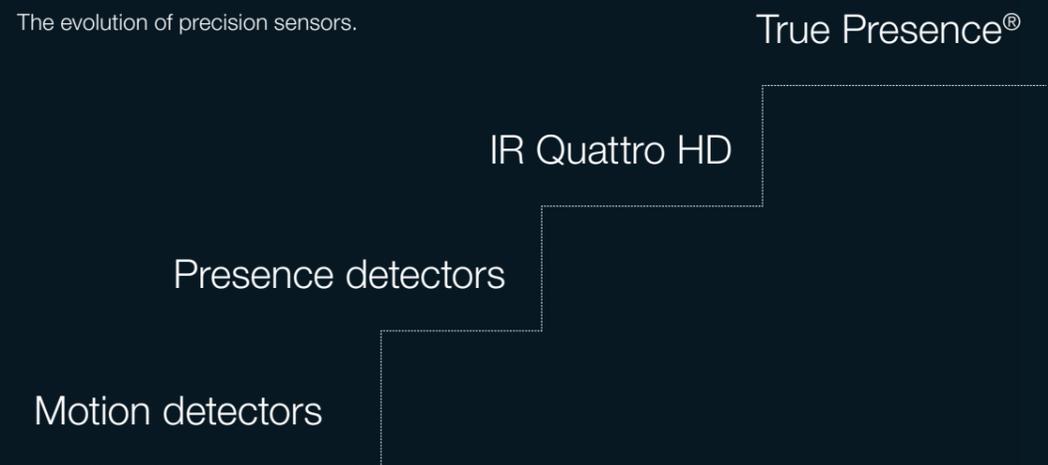
**To be or not to be?** What counts? What is really important? These are the questions we asked ourselves when we were pushing the further evolution of our sensor technology. Today's presence detectors actually are nothing more than enhanced motion sensors. And how can a motion sensor be improved even further? The answer came quickly: By concentrating on presence instead of motion. True presence means that a person is present – even when he is not moving. That really changes things. We took on the challenge. We met it.

True Presence® is the world's first true presence detector. It reliably detects the presence of a person. No matter what this person is doing: walking, standing, sitting, reading, resting or sleeping. This is real digital knowledge of presence or absence. This is essential information for existing or future building management.



True Presence® detects micro-movements resulting from the vital functions of a human. Even the slightest movement of the chest or shoulders when breathing is sufficient for a reliable detection.

The evolution of precision sensors.



True Presence®



## True Presence® Sensory organs for digitalisation.

Our True Presence® technology is based on detailed high-frequency measurements of the surroundings. The presence of humans is indicated when 3-dimensional breathing patterns (micro-movement resulting from vital functions) are detected. The combination of a highly sensitive antenna with unique sensor software results in a 100% detection of humans. The distance of the person to the sensor, the movement vector and the body posture is registered as well. And all of this so quickly and so precisely that an additional stay ON time is no longer required.

Sometimes it's the little details that result in major changes. Even when most people hardly notice presence detectors on the ceiling: the new True Presence® detectors will leave a lasting impression. The outstanding design indicates a revolution on the inside. True Presence® is the flagship of the presence detector evolution and opens up a new era in building sensor technology.

The true presence® product family combines revolutionary technology with an enhanced sensor design on a digital basis. And easy to control via app and Bluetooth.

True Presence® detects micro-movements resulting from the vital functions of a human.



Digital configuration of the detection zones and the sensor specifications.

Advanced high-frequency antenna with the highest resolution.



**True Presence®**

It is the first detector for identifying human presence. It reliably detects presence and absence of people in a 64m² area, the "True Presence®". At a previously unattainable 177 m², it has even been possible to triple its total presence detection zone over conventional presence detectors.

**True Presence®  
Multisensor KNX**

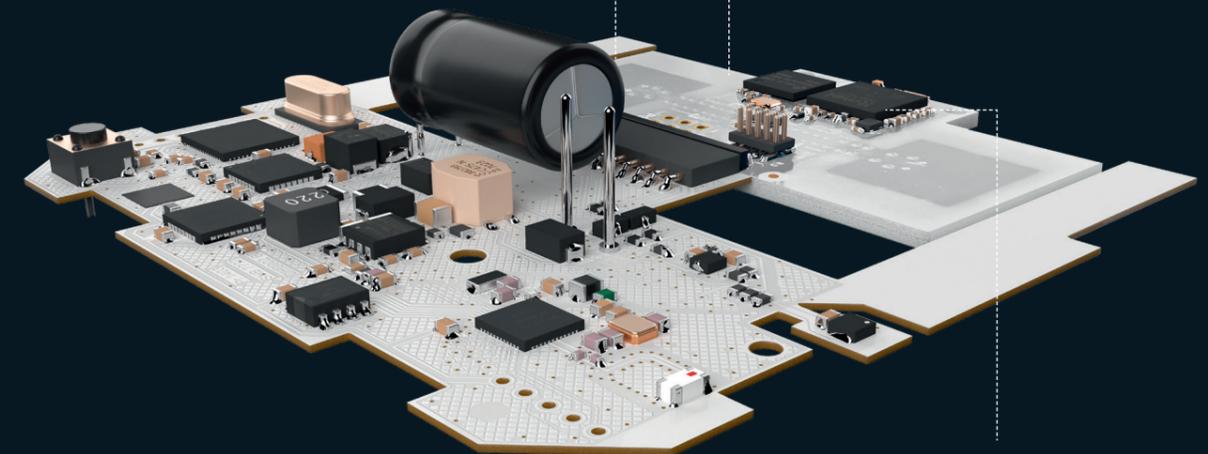
True Presence® technology with enhanced senses for brightness, room temperature, humidity, radial object distance, approaching and moving away, CO2, VOC and air pressure – no secrets for this sensor.

**Multisensor Air KNX**

Good air makes people active and keeps people healthy. This extension of the True Presence® family concentrates on the detection of temperature, humidity, air pressure, volatile organic compounds (VOC), CO2 and brightness.

**Hallway**

Specialists are needed for long hallways and aisles. Hallway detects the movement vector as well as if someone is on the left or the right with a detection zone of 25 m.

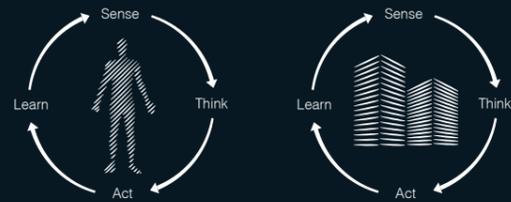


High-speed CPUs for sensor data evaluation.

## True Presence® Solutions for more efficiency, health, safety and comfort.

Building intelligence starts with a sense, just like with humans. Sensors record data and transmit this to a central processing unit where it is analysed and evaluated. The information resulting from this analysis is then available for the technical actuators within the building. The intelligent building continuously collects this knowledge and continuously optimises the performance automatically.

True Presence® can detect true human presence in the room no matter what these people are doing. Long follow-up timing is not necessary anymore. The information "presence of humans" now becomes a control parameter for building automation. And even when this technology is already available on the market, it still has not revealed its full potential yet. Combining true presence® with the detection of temperature, humidity, VOC and brightness makes sensors real sensory organs and gives your building the information that is necessary for true **building intelligence**.



**Occupancy and service management.** Which room is available, which room is still occupied? It is embarrassing and inefficient when service personnel enter a room that is still occupied. The Hospitality-Solution lets you easily detect which rooms still have guests present and which do not. The Service is optimised and is much quicker.



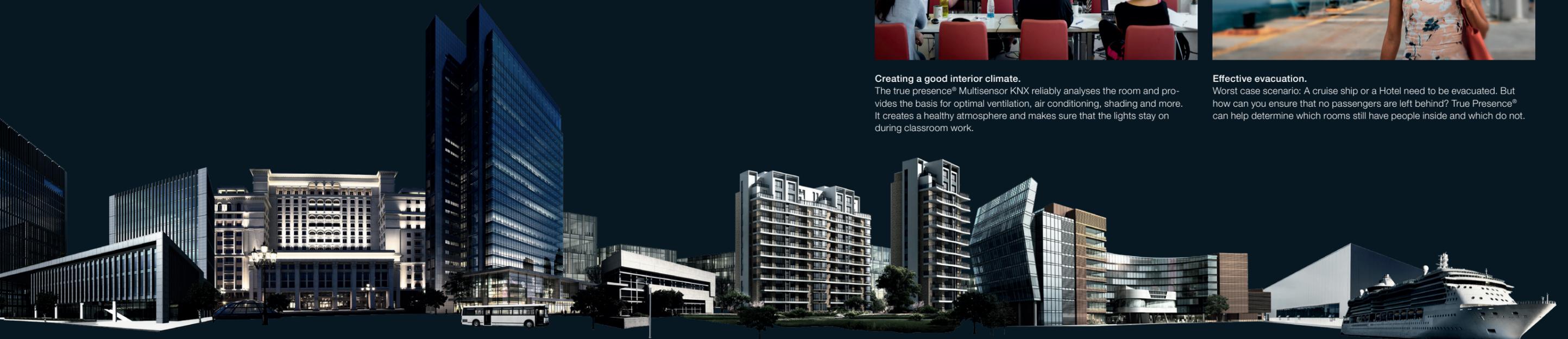
**Care room monitoring.** The number of elderly people is constantly increasing. The special Elderly Care solutions let True Presence® reliably detect the vital functions of people that require care - it detects presence and absence as well as deviations from normal situations and problematic conditions.



**Creating a good interior climate.** The true presence® Multisensor KNX reliably analyses the room and provides the basis for optimal ventilation, air conditioning, shading and more. It creates a healthy atmosphere and makes sure that the lights stay on during classroom work.



**Effective evacuation.** Worst case scenario: A cruise ship or a Hotel need to be evacuated. But how can you ensure that no passengers are left behind? True Presence® can help determine which rooms still have people inside and which do not.

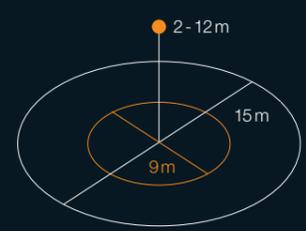


# True Presence®

## The first true presence detector.

**Looking forward follows looking up.** true presence® was developed to be the first true presence detector. It reliably indicates if a person is in the room or not. This means that reliable absence detection is possible for the first time. This information allows the reliable activation and deactivation of lighting without the need for stay ON times and without any waste of electricity. The detailed knowledge concerning presence and absence results in numerous other applications that can be very valuable for building management. This sets a new standard in advanced building automation.

-   
 True Presence  
 Ø 9m
-   
 presence  
 Ø 15m
-   
 movement  
 Ø 15m
-   
 360°
-   
 5 JAHRE  
 HERSTELLER  
 GARANTIE  
 manufacturer's  
 warranty



Mounting height 2 - 12 m  
 True Presence®-zone Ø 9m / 64 m<sup>2</sup>  
 Presence zone Ø 15m / 177 m<sup>2</sup>



### Technical specifications

Dimensions (LxWxH):  
 Surface installation 122.7 x 122.7 x 45 mm  
 Concealed installation 103 x 103 x 50 mm  
 Power supply: 220 - 240 V, 50 / 60 Hz

COM1 / COM2:  
 Output COM1/COM2: max. 2000 W, max. 8 fluorescent lamps / LED lamps C < 176 µF  
 Output COM2: max. 230 W / 230 V, max. 1 A

DALI:  
 Output DALI: 1 x 2-conductor DALI-control line / broadcast for 64 electronic ballast  
 KNX:  
 Power supply: KNX bus voltage

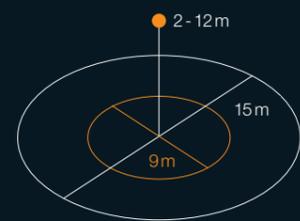
Sensor type: high frequency  
 Angle of coverage: 360°  
 Reach: Ø 9 m true presence®, Ø 15 m presence, Ø 15 m motion (mounted at a height of 2.8 m)  
 Twilight setting: 2 - 1000 lx  
 Time setting: COM1 / COM2 / DALI:  
 0 sec - 30 min, KNX: 0 - 255 min  
 IP rating: IP20 (surface mounted) / IP54 (concealed mounting)  
 Mounting height: 2 - 12 m  
 Temperature: -20 to +50 °C; 0 to +40 °C (KNX)  
 Material: UV-resistant plastic  
 Network: wireless connection via Bluetooth  
 KNX version - sensor detection variables:  
 True Presence®, temperature, humidity, detection of movement vector and distance to the person

- True Presence®**  
**COM1 AP** EAN 4007841 057916  
**COM1 UP** EAN 4007841 057923  
**COM2 AP** EAN 4007841 057930  
**COM2 UP** EAN 4007841 057947  
**DALI AP** EAN 4007841 057954  
**DALI UP** EAN 4007841 057961  
**KNX UP** EAN 4007841 056339

Distribution by STEINEL SYSTEMS only.  
 Further information on request.

## True Presence® Multisensor KNX. Seven senses for intelligent buildings.

The most precise presence detector ever becomes the ultimate sensory organ. Additionally to the true detection of people, brightness, ambient temperature, humidity, air pressure, volatile organic compounds (VOC) and CO<sub>2</sub> are available. Information that brings the digitalisation of building automation a great deal further. This combination makes the true presence® Multisensor KNX a good investment in building intelligence, a comfortable environment for people and real efficiency. The best comes from above – precise, digital information for an advanced building management.



Mounting height 2 - 12 m  
True Presence®-zone Ø 9m / 64 m<sup>2</sup>  
Presence zone Ø 15m / 177 m<sup>2</sup>



### Technical specifications

Dimensions (L x W x H): 123 x 123 x 31 mm  
Power supply: KNX bus voltage  
Sensor type: Multisensor  
Angle of coverage: 360°  
Reach: Ø 9 m true presence®, Ø 15 m presence, Ø 15 m motion (mounted at a height of 2.8 m)  
Twilight setting: 2 - 1000 lx  
Timer setting: 0 - 255 min  
IP rating: IP20  
Mounting height: 2 - 12 m  
Temperature: 0 to +40°C

### Sensor detection variables:

true presence®, brightness, temperature, humidity, air pressure, volatile organic compounds (VOC), CO<sub>2</sub>, detection of movement vector and distance to the person  
Material: UV-resistant plastic  
Network: wireless connection via Bluetooth

### True Presence® Multisensor KNX

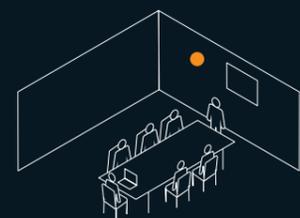
EAN 4007841 056353

Distribution by STEINEL SYSTEMS only.  
Further information on request.

## Multisensor Air KNX

Concentrating on a healthy interior climate.

The true presence® product family sets new standards. The system is rounded off with sensors that provide additional information reliably. The Multisensor AIR KNX specialises in air, brightness and temperature detection. Without true presence® detection, but still with the modern unique look, it easily fits into the appearance of a modern building. The sensor with a sense for a good atmosphere.



6 sensor detection variables for customised measurement



### Technical specifications

Dimensions (L x W x H): 123 x 123 x 31 mm  
 Power supply: KNX bus voltage  
 Sensor type: Multisensor  
 IP rating: IP20  
 Temperature: 0 to +40 °C  
 Sensor detection variables:  
 Brightness, temperature, humidity, air pressure,  
 volatile organic compounds (VOC), CO<sub>2</sub>,  
 Material: UV-resistant plastic  
 Network: wireless connection via Bluetooth

### Multisensor Air KNX

EAN 4007841 056346

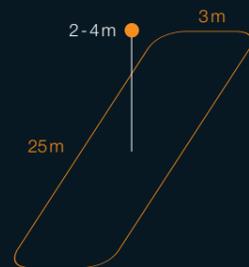
Distribution by STEINEL SYSTEMS only.  
 Further information on request.

## Hallway

The specialist for long hallways and aisles.

The better hallway sensor knows more. Movement vector (coming and going) as well as if someone is on the left or the right. And this with a detection zone of 25 m. Naturally, the reach can also be adjusted in both directions. It provides more information than any other hallway sensor. Bluetooth technology ensures that the Hallway can be configured and interconnected into existing networks conveniently. And the distinguished design makes it an important member of the true presence® family.

-  360°
-  max. 25 x 3 m
-  2 - 1000 Lux
-  5sec - 15min
-  0 - 255min  
KNX-Version
-  **5 JAHRE**  
HERSTELLER  
GARANTIE  
manufacturer's  
warranty



Mounting height 2 - 4 m  
Detection zone 25 m / 75 m<sup>2</sup>



### Technical specifications

Dimensions (LxWxH):  
Surface mounting: 122.7 x 122.7 x 61.9 mm  
Concealed installation: 102.7 x 102.7 x 66.5 mm  
Power supply: 220 - 240 V, 50 / 60 Hz

COM1 / COM2  
Output COM1/COM2: max. 2000 W, max.  
8 fluorescent lamps / LED lamps C < 176 µF  
Output COM2: max. 230 W / 230 V, max. 1 A

DALI:  
Output DALI: 1 x 2-conductor DALI-control line /  
broadcast for 64 electronic ballast

KNX:  
Power supply: KNX bus voltage

Sensor type: high frequency  
Angle of coverage: corridor, both directions  
Reach: min. 3 x 2 m, max. 3 x 12.5 m in all  
directions

Twilight setting: 2 - 1000 lx  
Time setting: COM1 / COM2 / DALI:  
0 sec - 30 min, KNX: 0 - 255 min  
IP rating: IP54 concealed installation / IP20  
surface installation  
Mounting height: 2 - 4 m  
Temperature: -20 to +50°C; 0 to +40°C (KNX)  
Material: UV-resistant plastic  
Network: wireless connection via Bluetooth

Hallway  
COM1 AP EAN 4007841 057978  
COM1 UP EAN 4007841 057985

COM2 AP EAN 4007841 057992  
COM2 UP EAN 4007841 058005

DALI AP EAN 4007841 058012  
DALI UP EAN 4007841 058029

KNX UP EAN 4007841 058036

Distribution by STEINEL SYSTEMS only.  
Further information on request.

## HPD 2

We taught our sensor how to count.  
And you have no idea about all the things made possible by this.

**What is happening where? How great would that be when a sensor could tell you that.** The HPD2 with optical presence technology can. Anywhere where you want to know how many people are present at a certain location, the HPD2 can provide the appropriate information. Information in a dimension that still is to fully explored. Digitalisation and interconnection in building automation is gathering ever more speed. This includes sensory organs that enable the analysis of individual areas. How many employees are in the office? Who is sitting where? Are there any delays in front of the elevators? What is the frequency in the stairways? Is there a queue at the checkout? There are an unlimited number of examples that show how important it will be to know more and more within the building. The right information is not only needed for interaction within the building automation, but also for the organisation and optimisation of processes. The HPD2 can deliver this information. reliably and precisely.



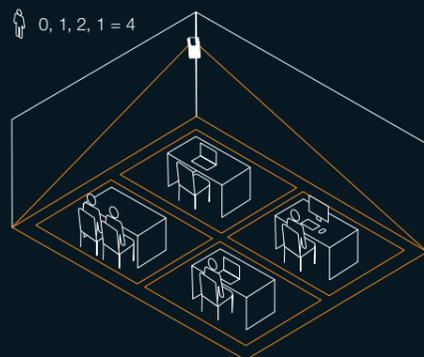
Optical sensors deliver information concerning the number and position of people.



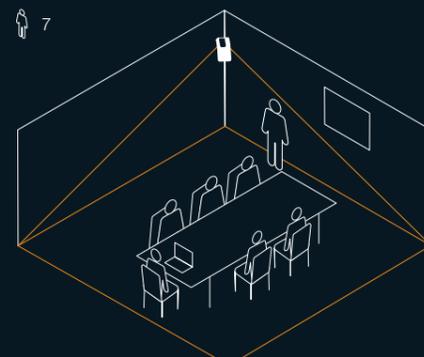
## HPD2

One sensor, five zones  
and many good reasons for optical sensors.

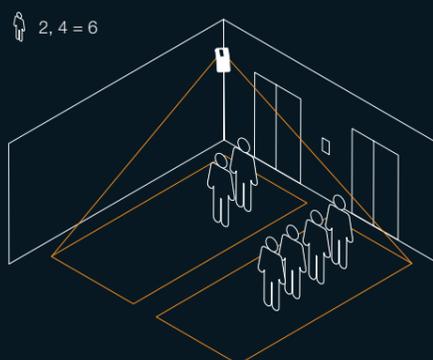
Saving energy, optimising costs, creating an atmosphere, protecting health, promoting motivation, improving processes, enhancing satisfaction, analysing failures, protecting resources, ...  
Once you grasp the concept you begin to understand why we just had to develop the HPD2.  
It goes way beyond simple illumination. Its all about information and its analysis.



Areas can be divided into 5 detection zones.



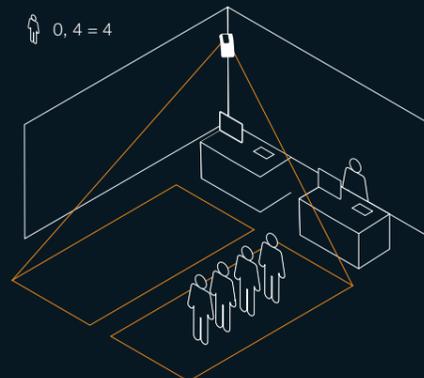
Reliable detection of the number of people in a room.



Live information concerning utilization and frequency.



What? How many?  
Where? When?  
More intelligence with optical multi-sensor systems.



Data processing for situation-analysis.



### 1. Organising flexible workplaces.

A workplace in a large city can cost 10,000 € a year and more. And sometimes not even half of these workplaces are effectively occupied. The Desk Sharing solution lets you know at a glance where there still are places available and where not. Idea: Increase the utilisation rate and save money.



### 2. Managing conference rooms.

Which conference rooms are available? Which are occupied? Where is the meeting? Our Meeting-Room solution allows you to quickly and reliably detect the utilisation and can even provide information on how many people are in the respective room.



### 3. Efficient elevator management.

Put an end to long waiting times at the elevator! The HPD2 can tell you exactly how many people are waiting for the elevator. And how many people are already inside the elevator. Using this information a full elevator can pass through a populated waiting area in order to return as quick as possible when empty.



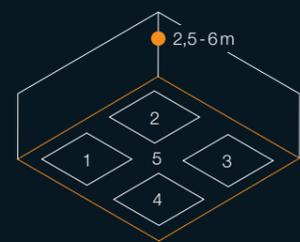
### 4. Optimising queues.

Nobody likes to stand in a queue. Not at the checkout in the supermarket, and not during lunch break in the cafeteria. The Waiting Line solution opens new checkouts and allocates personnel in order to eliminate queues as soon as possible.

## HPD 2

What? How many? Where? When? More intelligence with optical multi-sensor systems.

The world's best specialists and universities have developed this system, which analyses images directly in the sensor. With the HPD2 – HPD stands for "Human Presence Detection" – STEINEL makes a quantum leap in sensor technology. Because the HPD2 is the world's first presence detector that is not only capable of detecting whether people are present but can also count them. No matter whether they are moving about or not. At the heart of the person sensor is innovative technology that uses a highly sensitive optical system in combination with a complex mathematical algorithm. The HPD2 also has integrated temperature and air-humidity sensors, opening up completely new possibilities in building automation. Light, heating and air-conditioning can finally be controlled in line with demand for the number of people present in a room.



Mounting height (wall) 2.5-6 m  
up to 5 zones can be adjusted



### Technical specifications

Dimensions: (H x W x D): 156 x 86 x 52 mm  
Power supply: KNX-bus voltage + auxiliary voltage 18-57 V DC, 130 mA bus current  
IP: Power over Ethernet (PoE)  
Sensor type: optical sensor  
Angle of coverage: 110°  
Reach: max. radius 10 m  
Twilight setting: 2 - 2000 lux  
Time setting: 1 - 255 min

Communication objects HPD 2  
KNX twisted pair:  
Light channel with constant-lighting control per zone

Number of people present for up to 5 zones  
Threshold control possible  
Output of temperature, air humidity and light level  
Presence output  
Output of the values for all zones accumulated

IP (via Rest-API)  
Output of the compiled sensor data  
Number of persons in total / per zone  
Light level total / per zone  
Presence  
Temperature  
Air humidity  
Brightness

IP rating / protection class: IP20 / III  
Temperature range: 0°C to +40°C  
Material: UV-resistant plastic

**HPD 2**  
KNX Twisted Pair EAN 4007841 033200  
IP EAN 4007841 033965

Distribution by STEINEL SYSTEMS only.  
Further information on request.

