

## Xovis PC-Series

# 3D people counting sensor



PC2 model



PC3 model

The Xovis PC-Series is the most complete solution in the market to solve every people counting and tracking application with unmatched precision.

The basic configuration of a PC-Series sensor includes following features:

- ◆ People counting
- ◆ Zone occupancy
- ◆ Heat and height map
- ◆ 4 privacy levels

The PC-Series is ideally designed for:

- ◆ Retail outlets
- ◆ Building management
- ◆ Access control
- ◆ Railway stations

...and much more

Special features:

- ◆ 3D stereo vision technology with the widest viewing angle in the market
- ◆ Unique sensor model portfolio to support any area/height situation
- ◆ Plug-and-play configuration
- ◆ Plug-in architecture
- ◆ Fast integration by system integrators
- ◆ Robust operation with counting accuracy up to 99%
- ◆ Local data storage for offline operation
- ◆ Multisensor with up to 6 sensors
- ◆ Queue detection
- ◆ Swiss quality product

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### Robust operation

The 3D stereo vision technology is highly robust against all kinds of external influences like shadows, light changes, heat emissions etc.

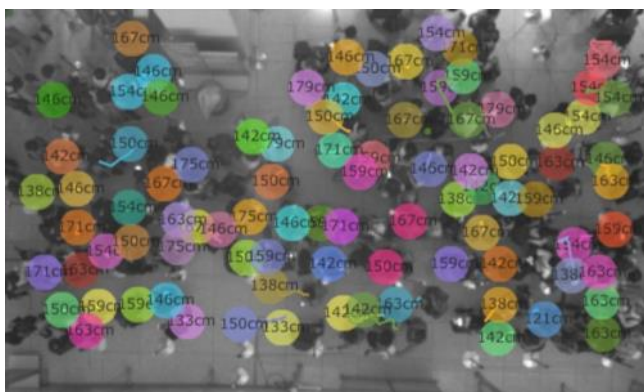
### Real-time analysis

The whole 3D image processing is performed on the sensor itself. No additional servers are needed for image processing. In addition, the PC-Series features an ultra-wide viewing angle to cover wide passages and large areas with a single sensor.

### Tracking

Besides the standard people counting and zone occupancy applications, the robust and unique tracking technology provided by the PC-Series sensor delineates the basement for a broad range of additional applications.

Every person that enters the visible area of the sensor is given a unique ID and is tracked continuously.



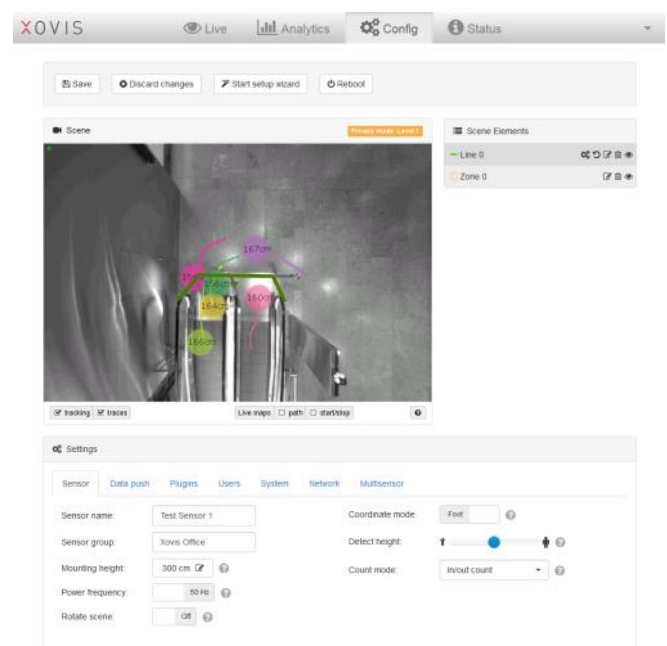
### Future Proof

Xovis PC-Series is a future-proof and safe investment: Already installed sensors can be upgraded in the field with actual firmware upgrades to apply new features.

### Fast installation

All PC-Series sensors have a built-in wizard supporting a quick first time setup and configuration. Since the installer is guided through the setup process, only basic know-how is required to perform the initial configuration.

In addition, the well organized and state-of-the-art Web-GUI allows to perform any maintenance activities easily.



### Integration

Thanks to the simple XML-based interface, the sensor can be quickly integrated into existing systems.

The sensor can be conveniently configured and read off via the web interface. An API is available for system integrators to realize a full sensor integration supporting all features.

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### Counting lines

Counting lines are multipoint lines which can be adapted perfectly to any situation and count people in both directions when passing the line.

Each sensor allows to draw up to 8 independent counting lines and is able to monitor simultaneously forward and backward crossings.

### Zones

The basic functionality of the PC-Series includes zone occupancy as well. It shows the current number of persons present in a particular zone. In addition, zones can be defined as activation zones for a dedicated counting line to perform a respective logical function.

On a single sensor up to 8 zones can be configured and monitored simultaneously.

### Privacy protection

The PC-Series contains a mechanism to define up to four different privacy protection levels to be able to fulfill every possible data privacy requirement.

No video stream is leaving the sensor; only metadata is sent out.

**Privacy mode**

Choose the level of privacy you want the sensor to operate with. Attention: Lowering the level of privacy always requires the sensor unique key to be entered!

Level	Description
Level 0	No restrictions. Live video image stream and tracked person paths are shown.
Level 1	No video stream. Only still scene image is shown. Stream of tracked person paths is shown without restriction.
Level 2	No image information at all. No image of the observed scene is shown at all. Stream of tracked person paths is shown without restriction.
Level 3	No image and path information. No image of the observed scene is shown. No tracked person paths are shown.

Cancel Finish

### Visualization maps

The analytics tab of the built-in Web-GUI contains four visualizations:

- ◆ Persisted count data chart: allows to visualize the data inside the built-in database
- ◆ Start/stop point map: shows where a person has been generated and deleted
- ◆ Heat map for trend analysis
- ◆ Height map showing the average person height in the scene

**XOVIS** Live Analytics Config Status

**Persisted count data**

Lin Granularity: 1 hour

From: 25. Oct 2015 12:43 To: 26. Oct 2015 12:43

Timezone: UTC

Forward Backward

**Visualization maps**

Visualization maps show persisted and accurate data for analyzing the scene configuration and tracking behavior of the sensor. The maps are built from historic data gathered directly on the sensor. Compared to the "live maps" from the Live view and Config view, the visualization maps shown here are not influenced by network connectivity and therefore hold a complete and accurate representation of the tracking situation.

Please be aware of clearing the maps: All historic visualization data will be lost when clearing. Also note, that the maps are cleared on fundamental config changes (e.g. mounting height) and when rebooting the sensor.

**Start / Stop points**

show: No

Data source: 25. Oct 2015 08:03

**Heat map**

show: Yes

Data source: 26. Oct 2015 08:02

**Average person heights**

show: No

Data source: 26. Oct 2015 08:02

130 135 140 145 150 155 160 210 220

Refresh scene Show scene elements: No

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### A unique portfolio for many applications

With 9 sensor models the PC-Series covers installation heights from **2.2m** to **20m**, allowing to monitor up to **100m<sup>2</sup>** of effective tracking area with a single sensor.

The coverage capabilities of the full portfolio are described in the Selection Guide.

### Multisensor

Within a few minutes, a Multisensor with up to 6 sensors can be fully configured thanks to the automated stitching process and the dedicated Multisensor wizard. All configuration and processing is performed on the sensors itself, there is no need for any additional server hardware or software. The Multisensor is tracking people through all involved sensors, handing over the person ID's from one sensor to the other. Multiple zones and counting lines can be monitored simultaneously, generating event based information on a person ID level. In addition, the transmission of the coordinate stream of every single person opens the door for new powerful analyses and visualizations.

### Wide range of accessories

The robust body of a PC-Series sensor allows to install it directly on the ceiling. In addition Xovis offers a wide range of accessories allowing to fulfill every possible installation requirement.

### Plugin architecture

A big advantage of the PC2-Series is it's open plug-in architecture that results in functional flexibility at sensor level. A broad range of plug-in's is available, ask us for detailed information.

### Technical data

Working principle	3D stereo vision distance measurement
Installation angle	+/- 15° in x-axis +/- 5° in y-axis
Operation temperature	0°... 50 °C
Storage temperature	-20°... 70°
Air humidity	20 ... 80%
Connection	RJ-45 Ethernet
Power supply	PoE Class 0 (IEEE 802.3af)
Power consumption	< 5W
Required illumination	min. 2 lux
Data storage	up to 120 days
Max. people tracking	up to 200 people simultaneously
Multisensor	up to 6 sensors
Size (LxWxH)	PC2: 13.0 x 9.4 x 3.0 cm PC3: 33.0 x 6.1 x 4.0 cm
Weight	PC2: 350gr PC3: 900gr
Mounting height	PC2: up to 6m PC3: up to 20m