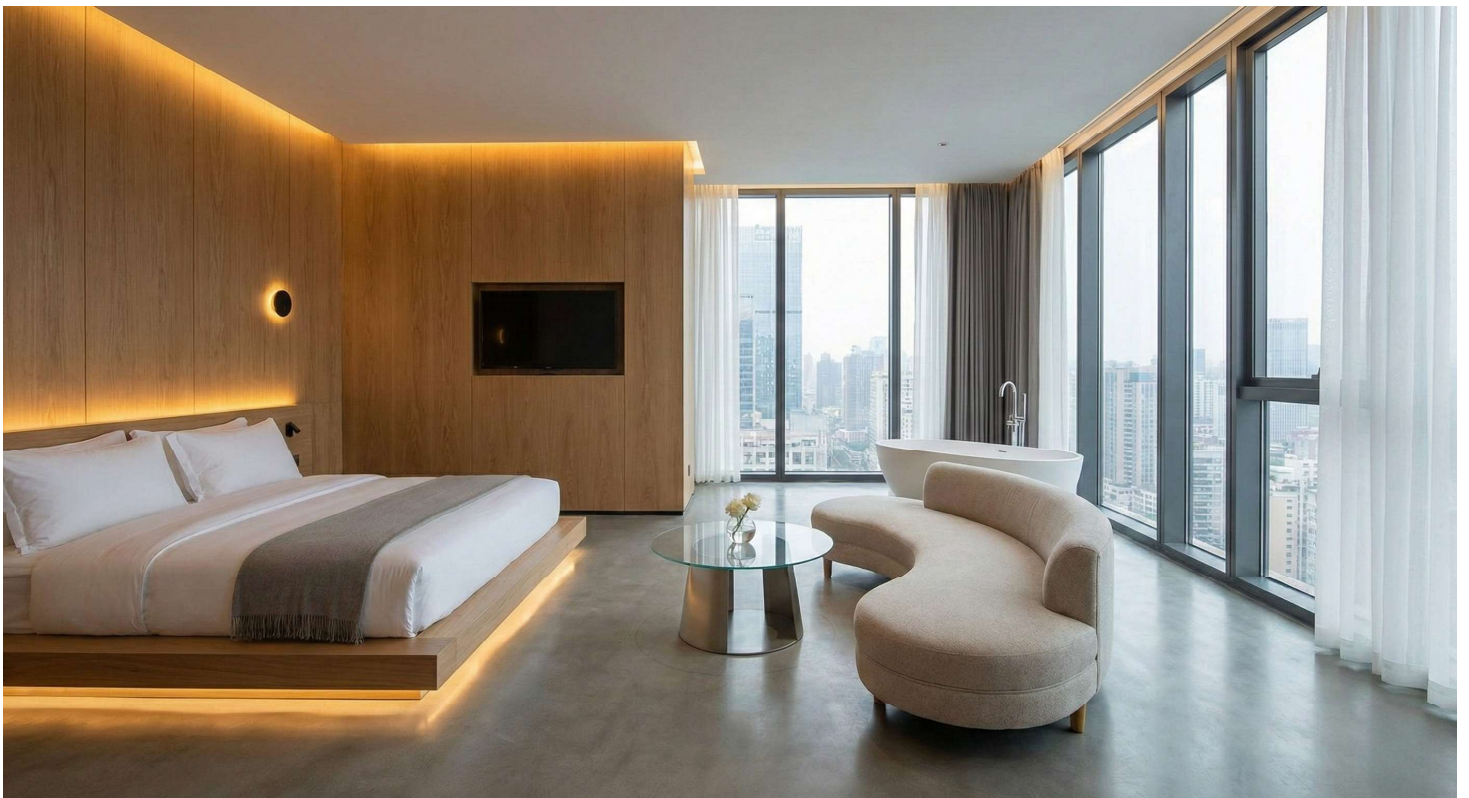




Steinel True Presence

Commissioning Manual & Room Configuration



Detection Technology Overview

TruePresence utilises high-frequency radar detection to create a volumetric sensing field below ceiling level.

Detection is based on reflected signal phase shift and micro-movement analysis rather than thermal change.

The sensor is capable of detecting:

- Seated movement
- Posture change
- Bed occupancy
- Breathing-level motion

Correct commissioning is essential to achieve stable sleep detection.

Detection Technology Overview

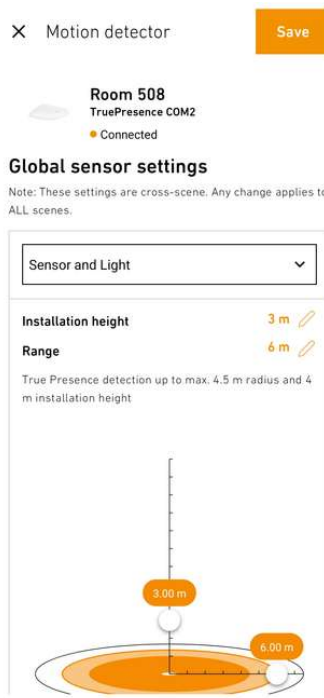
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Dashboard

The room dashboard provides a complete overview of the connected sensor and configured functions.

Displays motion detection status, lighting control, HVAC output, operating mode and group configuration.

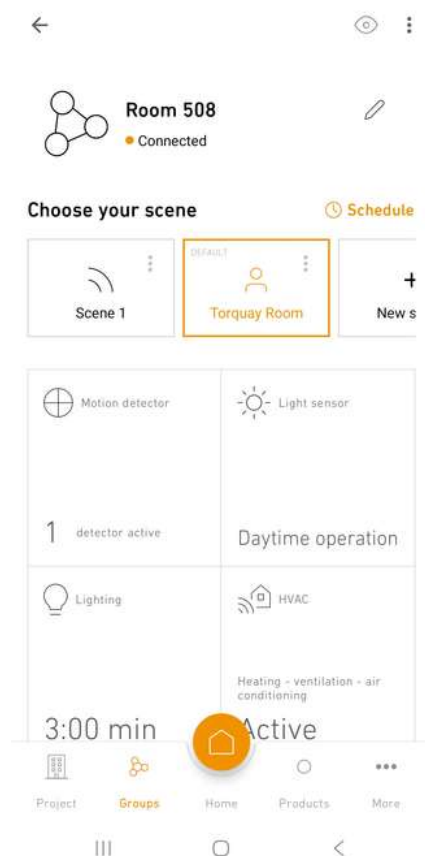
Ensure device shows 'Connected' before commissioning.

Commissioning Sequence

1. Enter installation height
2. Adjust detection range
3. Run Noise Map (room empty)
4. Select Scenario
5. Initialise
6. Configure Lighting
7. Configure Lux
8. Configure HVAC (COM2)
9. Perform Functional Verification

The sensor builds behaviour in layers.

Skipping order may result in unstable operation.



Connect App - Room Overview

Installation Height

Enter the measured ceiling height. Do not estimate.

This value defines the internal radar geometry model.

Incorrect height may:

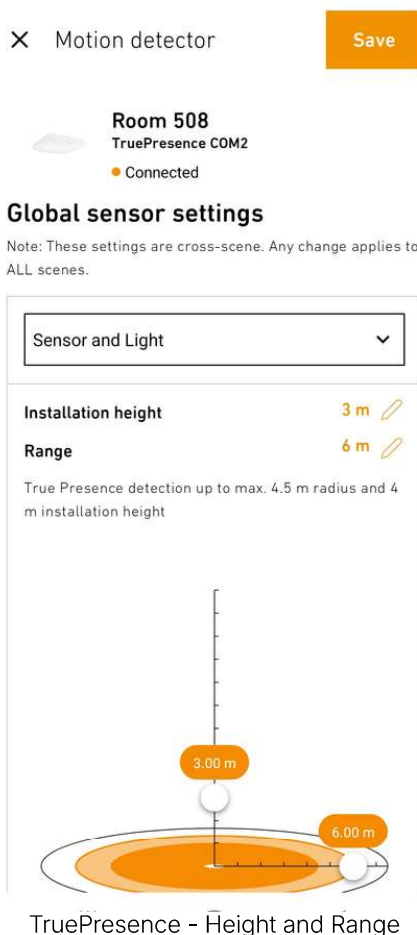
- Distort detection footprint
- Reduce sleep detection accuracy
- Cause premature switch-off

Detection Range

Adjust range to cover:

- Bed zone
- Desk zone
- Circulation path

Avoid excessive range if corridor interference is possible.



Noise Map – Environmental Baseline

Noise Map builds the environmental reflection filter.

During execution the sensor:

- Scans static objects
- Filters vibration signatures
- Establishes amplitude baseline
- Stores background reflection profile

Room must be completely empty.

Movement during Noise Map may cause:

- Constant presence detection
- Premature switch-off
- Unstable behaviour

Scenario Guidance

Scenario modifies micro-movement weighting and environmental filtering.

It is not linear sensitivity.

Scenario 4

Balanced profile for offices.

Scenario 5

Bedroom profile suited to environments with active HVAC airflow or mechanical turbulence.

Scenario 6

Enhanced micro-motion weighting for hotel bedrooms requiring sleep detection.

Start with Scenario 6.

If false presence occurs when AC is running, reduce to Scenario 5 before adjusting range.

Use the lowest scenario that provides stable detection.

There is a full guide at the end of this document.

Sensitivity
Scenario
Selection



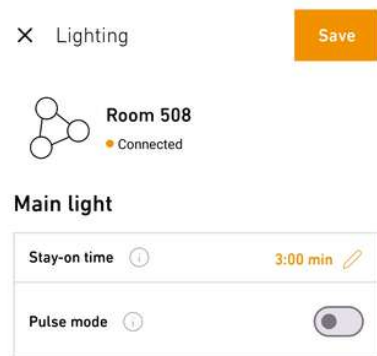
Lighting Configuration

Stay-on time typically 7–10 minutes for hotel rooms.

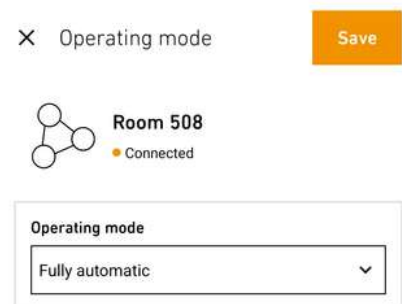
The lighting can either be activated when a person enters the room and the light will automatically turn "On" called "Fully Automatic" or when a person enters the room and manually need to turn the lights "On" called "Semi Automatic"

Fully Automatic is recommended for hotel rooms.

Short delays increase nuisance switch-off risk in sleep environments.



Lighting delay time



Fully Automatic Mode

HVAC Output

Second relay operates independently from lighting.

The HVAC output can be configured to activate immediately upon presence detection, or with a defined switch-on delay.

For example, the relay may be set to energise 2 minutes after a person enters the room.

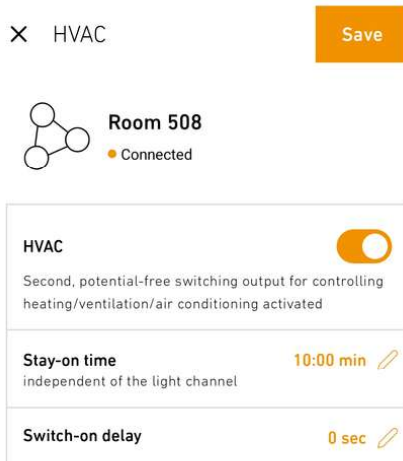
A delayed activation strategy is recommended where short occupancy events are common. This prevents unnecessary plant cycling when a person briefly enters and exits the space, improving system stability and reducing mechanical wear.

Typical configuration:

Lighting delay: 7-10 minutes

HVAC delay: 10-15 minutes

Prevents plant short cycling.



× HVAC Save

 **Room 508**
● Connected

HVAC On
Second, potential-free switching output for controlling heating/ventilation/air conditioning activated

Stay-on time 10:00 min ✎
independent of the light channel

Switch-on delay 0 sec ✎

Light Level Calibration

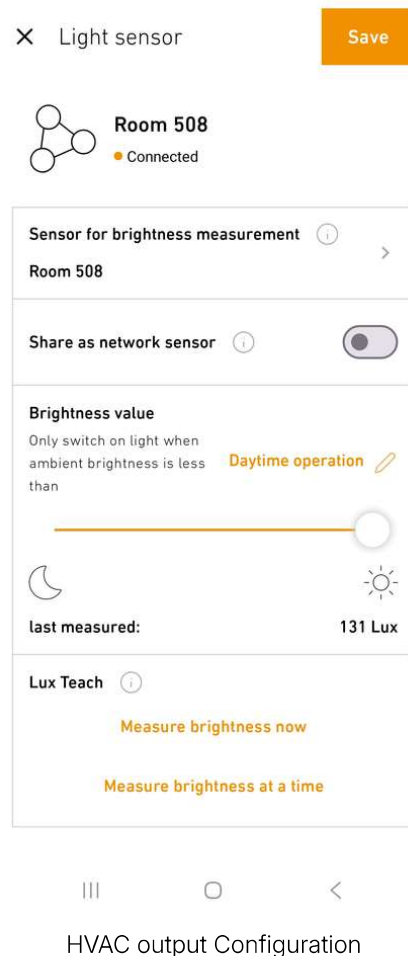
Enable brightness threshold where daylight exists. You can set a pre-defined desired level or measure the rooms current brightness.

Procedure:

1. Set desired ambient condition
2. Press "Measure brightness now"
3. Save measured value

Incorrect lux may mimic detection failure.

Recommended for hotels the brightness level should be set to maximum



× Light sensor Save

 **Room 508**
● Connected

Sensor for brightness measurement ⓘ >
Room 508

Share as network sensor ⓘ On

Brightness value
Only switch on light when ambient brightness is less than Daytime operation ✎

 
last measured: 131 Lux

Lux Teach ⓘ
Measure brightness now
Measure brightness at a time

III ○ <
HVAC output Configuration

Dual Sensor Configuration (Bedroom + Bathroom)

Each sensor must:

- Be in its own group
- Run its own Noise Map
- Run its own Initialise

Do not share brightness in hotel installations unless intentional.

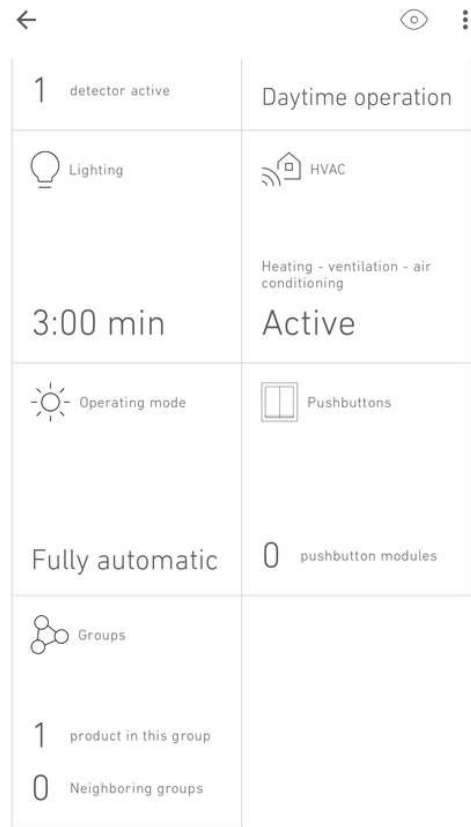
Each sensor can run independently or as neighbouring groups

Under “Groups” you can combine 2 or more groups so that any presence detected will activate the other groups.

It can be configured that the room sensor only activates the room, and the bathroom sensor maintains lighting on in the bathroom and room

Commissioning Test Procedure

- 1.Exit room – confirm switch-off
- 2.Re-enter – confirm immediate detection
- 3.Simulate sleep – confirm no premature switch-off
- 4.Confirm HVAC overrun timing
- 5.Confirm no false presence with AC operating



Grouping

Troubleshooting

Lights Switch Off While Room Is Occupied

1. Lights Switch Off While Room Is Occupied

This is typically caused by incorrect scenario selection or improper Initialise procedure.

Most common causes:

- Scenario too low for application
- Initialise performed while room was occupied
- Installation height entered incorrectly
- Bed located near edge of detection boundary

Corrective action:

Start with Scenario 6 in sleep environments.
If already on Scenario 6, re-run Noise Map with room empty and then re-Initialise.
Verify correct ceiling height has been entered.
Increase detection range slightly if bed is near boundary.

Avoid immediately increasing scenario above 6 unless environment is fully controlled.

Constant Presence Detection (Lights Never Switch Off)

This is typically caused by Noise Map corruption or environmental vibration.

Common causes:

- Movement during Noise Map
- Mechanical vibration (AC ducting, ceiling movement)
- Detection range too large capturing corridor movement
- Scenario too high for airflow conditions

Corrective action:

Re-run Noise Map with room completely empty.
Confirm no movement during Initialise.
Reduce detection range slightly if corridor interference suspected.
If AC airflow is strong, reduce from Scenario 6 to Scenario 5.

Do not disable Noise Map in hotel applications.

False Presence When Air Conditioning Operates

This is airflow turbulence interacting with high micro-movement weighting.

Most common on Scenario 6 or above.

Corrective action:

Reduce to Scenario 5.
Confirm Noise Map completed correctly.
Check for ceiling vents directly above sensor.

Do not immediately reduce detection range unless airflow source is directional.

Sleep Detection Fails (Lights Turn Off During Sleep)

This is usually geometry or threshold related.

Possible causes:

- Installation height incorrect
- Detection range too small
- Bed located outside central detection zone
- Scenario too low

Corrective action:

Verify ceiling height.
Increase detection range slightly.
Select Scenario 6.
Re-run Noise Map and Initialise.

Never compensate by extending lighting delay excessively.

HVAC Does Not Switch Off

This is normally configuration related.

Possible causes:

- HVAC delay set too long
- HVAC output incorrectly assigned
- Continuous presence detection fault

Corrective action:

Check HVAC stay-on timer.
Confirm relay output assignment.
Verify presence detection is operating correctly before adjusting HVAC logic.

HVAC Short Cycling

This occurs when delay is too short.

Corrective action:

Increase HVAC stay-on delay beyond lighting delay.
Typical hotel setting: HVAC delay longer than lighting delay to prevent rapid plant cycling.

Bedroom Triggered by Bathroom Sensor

This is grouping configuration.

Cause:

Sensors placed in same group or neighbouring groups incorrectly configured.

Corrective action:

Ensure bedroom and bathroom sensors are in separate groups.
Run Noise Map and Initialise independently for each sensor.

Avoid shared brightness in hotel installations.

Lux Threshold Appears Incorrect

Lights may remain off despite occupancy if lux threshold is too low.

Corrective action:

Re-run Lux Teach under intended ambient conditions.
Confirm stored lux value is correct.

Disable lux control temporarily to confirm detection behaviour if required.

Unstable Behaviour After Commissioning

Most common cause is improper Noise Map or Initialise sequence.

Corrective sequence:

1. Clear existing baseline
2. Re-run Noise Map (room empty)
3. Re-select scenario
4. Re-Initialise
5. Perform functional test

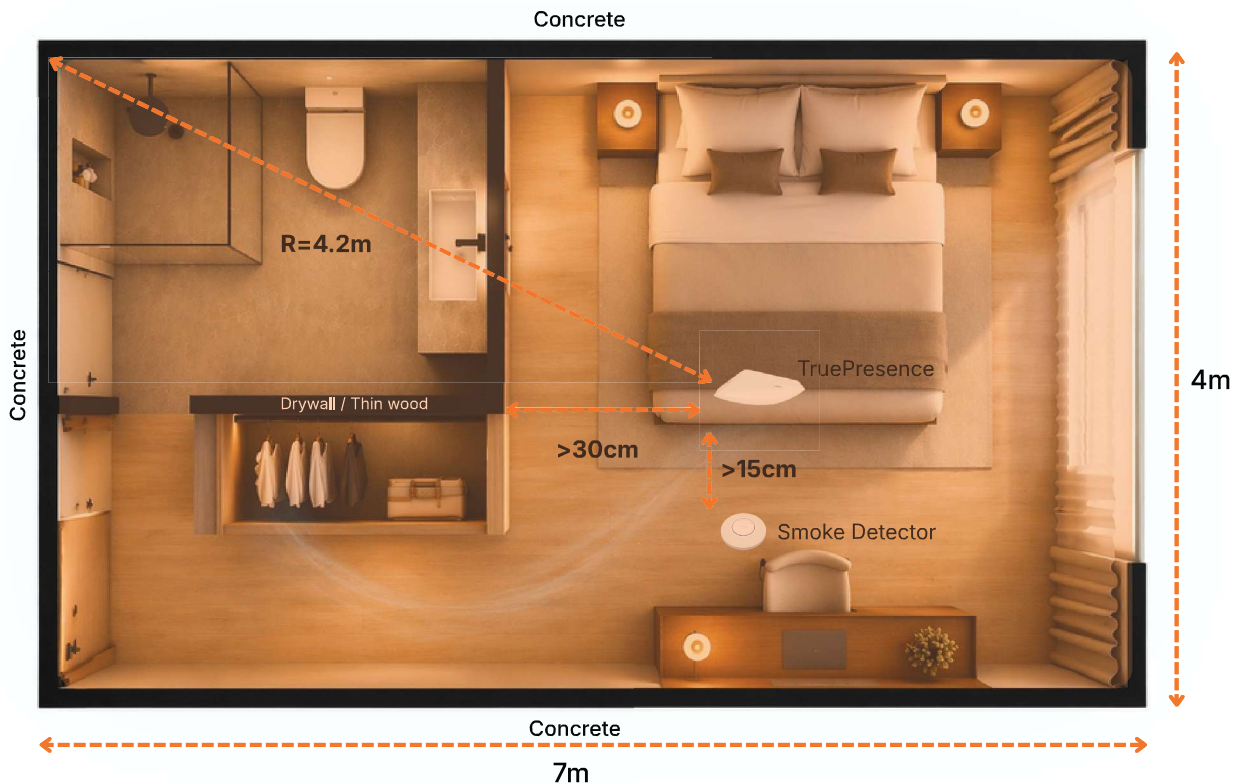
Avoid adjusting multiple parameters simultaneously.

Get in Touch

 **1800 784 463**

 **info@steinel.com.au**

Room with concrete outer walls



Considerations:

- Coverage: 100%. No uncovered areas (blind spots).
- Low latency (or: Low time delay).
- Optimal solution. A single sensor covers the entire room.

True Presence® Settings:

- Mounting Height: 2.8 m
- Time Delay: 5 min
- Radius: 4.2 m
- Scenario: 6

If positioning or room services is unclear, please contact your Steinel representative or call 1800 STEINEL before wiring and installation

No. 1: Room Layout and Wall Materials

Concrete walls on all sides. This allows the detection range to be set to a high value. The signal is heavily shielded by the walls and is therefore not detectable outside the room.

No. 2: Unwanted Movement or Moving Parts

Avoid moving parts such as fans or hanging lights within the room. There are no trees or pathways in the outdoor area near the window.

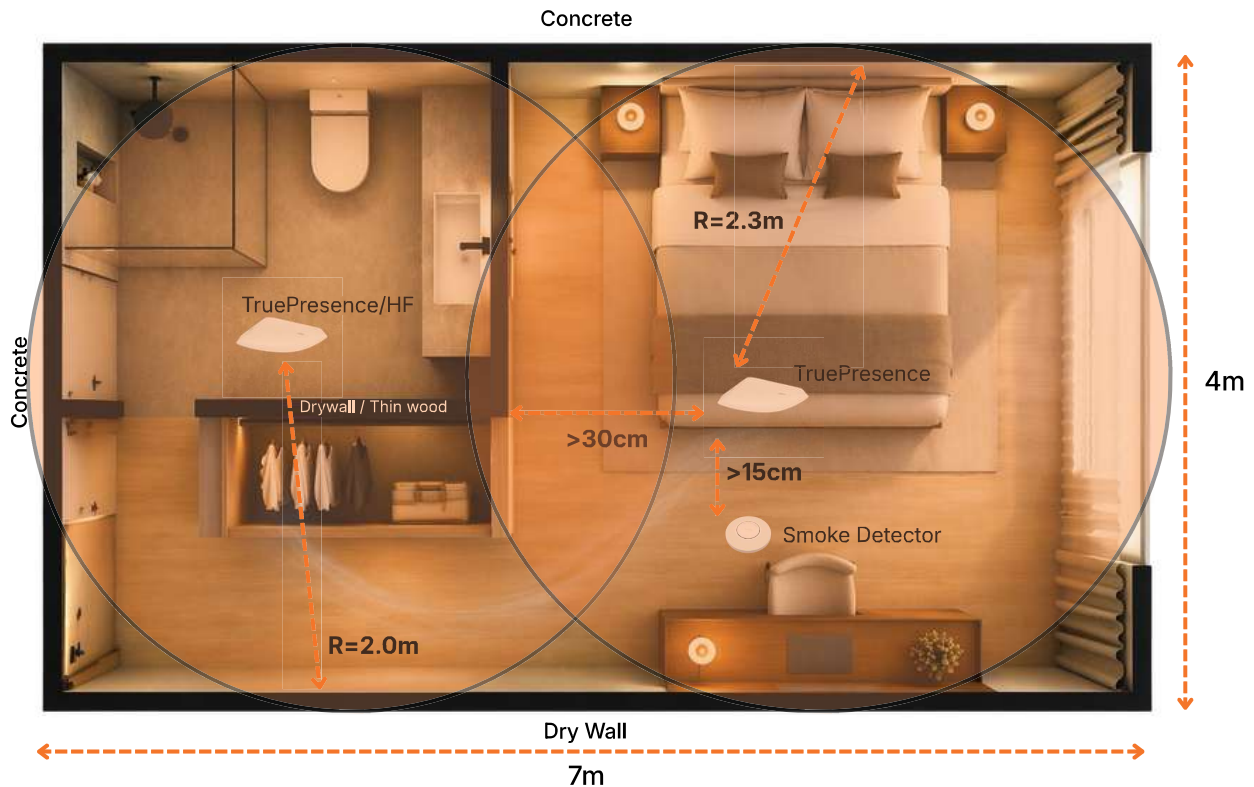
No. 3: Interference and Reflections

The sensor is not positioned within the airflow of the air conditioning system. The distance to any existing smoke detectors is at least 15 cm.

No. 4: Planning / Verification

Based on the gathered information, it is possible to perform accurate layout planning and a local functional test of the sensor.

Hotel Room with Concrete and Drywall (Stud) Walls



Considerations:

- Coverage: Approx. 90%. This can be compensated for by using a longer time delay (e.g., 10 min).
- Cost: More expensive solution.
- Hardware: Two sensors are required.

True Presence® Settings:

- Mounting Height: 2.8 m
- Time Delay: 10 min
- Radius: 2.0 / 2.3 m
- Scenario: 6

If positioning or room services is unclear, please contact your Steinel representative or call 1800 STEINEL before wiring and installation

No. 1: Room Layout and Wall Materials

Concrete walls on two sides and drywall (stud walls) on the other sides. The signal is heavily shielded/blocked on the concrete side, but not on the drywall side.

No. 2: Unwanted Movement or Moving Parts

No moving parts such as fans or hanging lights within the room. There are no trees or pathways in the outdoor area near the window.

No. 3: Interference and Reflections

The sensor is not positioned within the airflow of the air conditioning system. The distance to any existing smoke detectors is at least 15 cm.

No. 4: Planning / Verification

Based on the gathered information, it is possible to perform accurate layout planning and a local functional test of the sensor.

Hotel Room with Drywall (Stud Walls)



Considerations:

- Coverage: Approx. 80%. This can be compensated for by using a longer time delay (e.g., 10–15 min).
- Cost: More expensive solution.
- Hardware: Three sensors are required.

True Presence® Settings:

- Mounting Height: 2.8 m
- Time Delay: 15 min (All)
- Radius: 2.5 m
- Scenario: 6

If positioning or room services is unclear, please contact your Steinel representative or call 1800 STEINEL before wiring and installation

No. 1: Room Layout and Wall Materials

All walls are made of lightweight materials. No signal shielding/blocking from any side. This is the most challenging scenario. More than one sensor is required to cover the entire room. The uncovered area next to the wardrobe does not pose a problem, as this is only a transitional area.

No. 2: Unwanted Movement or Moving Parts

No moving parts such as fans or hanging lights within the room. There are no trees or pathways in the outdoor area near the window.

No. 3: Interference and Reflections

The sensor is not positioned within the airflow of the air conditioning system. The distance to any existing smoke detectors is at least 15 cm.

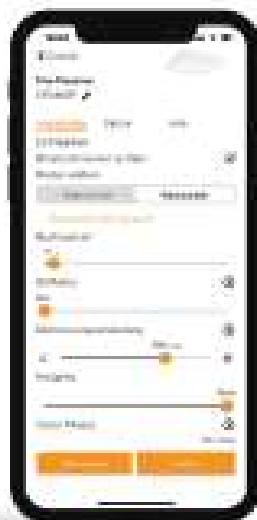
No. 4: Planning / Verification

Based on the gathered information, it is possible to perform accurate layout planning and a local functional test of the sensor.

Fast and easy for perfect sensor settings.

9 scenarios for True Presence®

Modern-day presence detectors frequently interpret vibrations or electrical interference as movement, resulting in inadvertent triggering. Our engineers have addressed this problem. For this, the resolution sensitivity of STEINEL True Presence® sensors can be adjusted digitally. In the app you will find 9 preset scenarios with sensor specifications matched to the particular application.





Standard scenarios

Small office...

...quiet workstation

Scenario 8

This scenario provides standard sensitivity for office workstations.



Large office...

...quiet workstation

Scenario 8

This scenario provides standard sensitivity for office workstations.



Hotel room

...with person asleep

Scenario 6

This scenario also provides maximum sensitivity. In addition, signal processing has been optimised to reliably detect the presence of persons sleeping.



Industry

... workplace without silent work (assembly line, warehouse)

Scenario 4

This scenario provides high sensitivity. To prevent undesired switching, it should be used for smaller areas.



Heavy industry...

...large machines, fork-lift trucks

Scenario 2

This scenario should be used if there are larger vibrations or if there are sources of electrical interference. The True Presence function is not available, the sensor functions as a conventional motion detector.

Variations

...with silent work

Scenario 9

As scenario 8, but with a higher sensitivity.

...busy entrance area

Scenario 7

As scenario 8, but with a further reduced sensitivity.

...with sources of interference (e.g. air-conditioning system)

Scenario 5

As scenario 6, with slightly reduced sensitivity.

...lots of movement or large machines

Scenario 3

As scenario 4, with slightly reduced sensitivity.

...very strong vibrations

Scenario 1

As scenario 2, with a slightly reduced sensitivity.

Detailed settings.

In the overview below you can see the basic settings of the 9 scenarios. Based on these, you can make individual adjustments to meet your requirements.

Scenario	Title	Presence detection	Breath detection (True Presence®)	Detection of sleeping people	Sensitivity	
					for movement	True Presence®
1	Room with strong vibrations (e.g. industry)	●				
2	Room with low vibrations (e.g. industry)	●				
3	Common corridors and halls	●	●			
4	Large corridors and halls	●	●			
5	Common hotel, bedroom and living rooms	●	●	●		
6	Large hotel, bedroom and living rooms	●	●	●		
7	Large office with lots of movement	●	●			
8	Standard office	●	●			
9	Small office with silent work	●	●			



For more information
scan the QR code