

342 Acoustic Sensor

The 342 Acoustic Sensor combines audible and infrasound detectors in one single component as an active part in lighting control.

This audible sound sensor is used for near field presence/ movement detection and the infrasound detector is for recognizing e.g. the opening of a door, within the allocated range.

A built-in sensor responds to low frequency (LF) pressure changes such as door openings and high frequency (HF) sounds such as speech and walking.

The sensor is ideal for enclosed spaces such as corridors, stairwells and single floor parking garage. Using sound detection means the relating luminaire circuit will switch on prior to anyone entering the area.

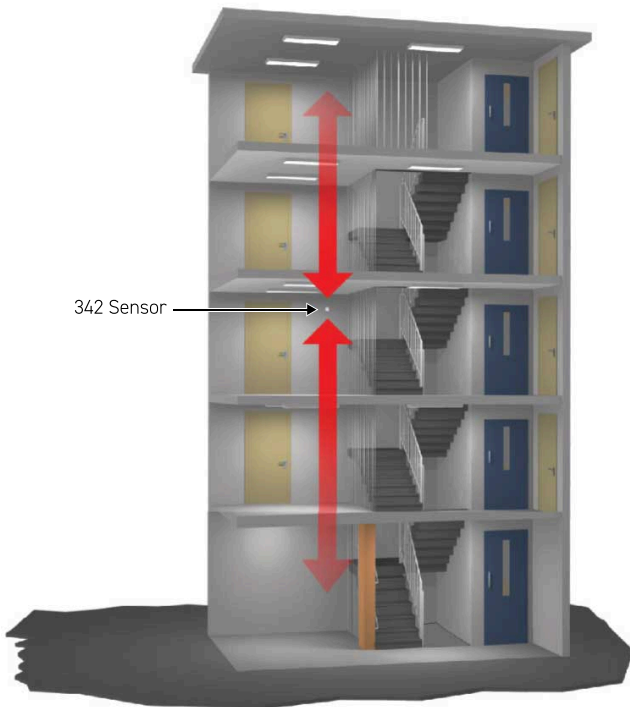
The 342 is suited for areas that may require a large number of PIR sensors or that are difficult to equip using traditional movement sensors.

Being an acoustic sensor it can be set up out of the line of sight.



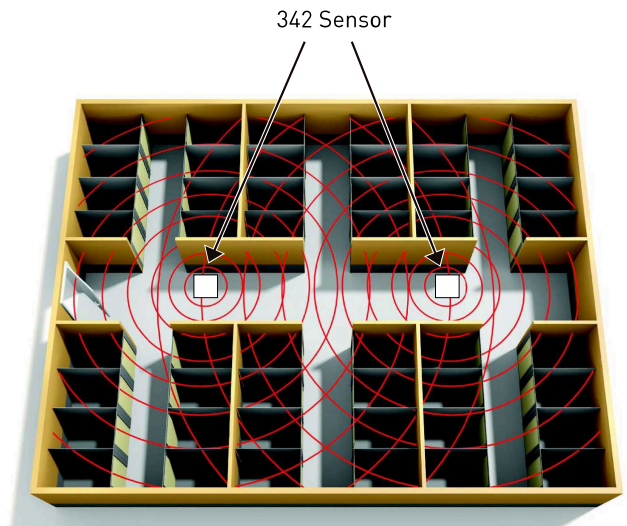
Presence Detection Coverage Examples

As shown in the example below, one sensor can cover three to five stairwells however this is dependent on the size of the area and the density of any material present in the walls and ceilings, such as insulation or soundproofing.



Key Features

- Combines audio and infrasound detectors.
- DALI compatible.
- Frequency Range: HF - 2-20 kHz, LF - 1-3 Hz.
- Area of coverage: HF - 25m radius, LF - Approximately 2000 m3.
- Detection outside line of sight.
- Separate LF and HF settings.
- Early detection.
- Ideal for corridors, stairwells and garage areas.



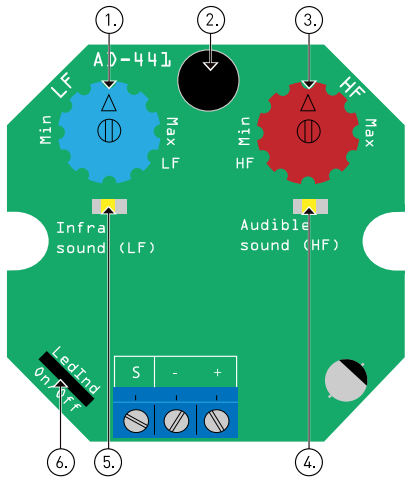
An office layout is shown in the example on the right. Each sensor has around a 25 meter radius although this depends on factors such as the density of the carpets and walls and also furnishings within the area, all of which can decrease the HF range.

Air locks within the area will decrease the LF range.

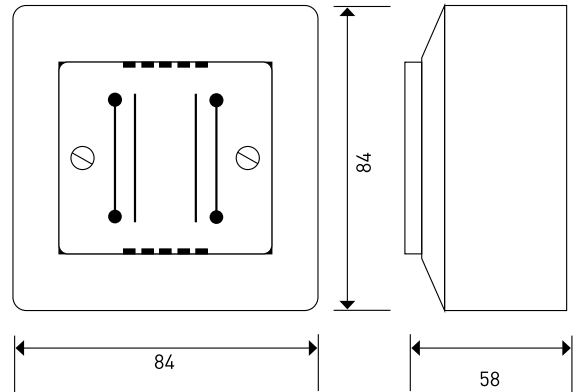
Be aware that ambient sounds such as metallic roofing or a rotating fan can cause false detection although this can be avoided by decreasing the sensitivity in the sensor settings or installing additional units.

Connectons and Controls

Dimensions (mm)



1. LF / infrasonic sensitivity dial (for door openings)
2. SND (Sound sensor)
3. HF sensitivity dial (for speech and walking)
4. HF sound indicator
5. LF sound indicator
6. LED On/Off switch



Technical Data

Connections	
DALI:	2-way connector block
Wire section:	0.5 mm ² – 1.5 mm ² solid or stranded
Cable rating:	All cables must be mains rated.

Electrical data	
DALI supply input:	13 V – 22.5 V
DALI consumption:	15 mA (max)

Sensor	
Presence detector:	Sound detector for audible and infrasonic sound

Conformity and standards	
Conformity:	
EMC emission:	EN 55015
EMC immunity:	EN 61547
Safety:	EN 60950
Environment:	Complies with WEEE and RoHS directives.

Mechanical data	
Max recommended mounting height:	10 m
Area of coverage:	HF - 25m radius LF - Approximately 2000 m ³
Dimensions:	84 mm × 84 mm × 58 mm
Material (casing):	UL94V-HB ABS
Finish / Colour:	Semi-matt / White RAL 9003
Weight:	93 g
IP rating:	IP20

Operating and storage conditions	
Ambient temperature:	0 to +50 °C
Relative humidity:	Max. 90 %, non-condensing
Storage temperature:	-10 °C to +60 °C

Software compatibility	
Designer:	5.2 or later
Toolbox:	2.2.12 or later