

Acoustic Sensor (342) Datasheet



The 342 Acoustic DALI 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.

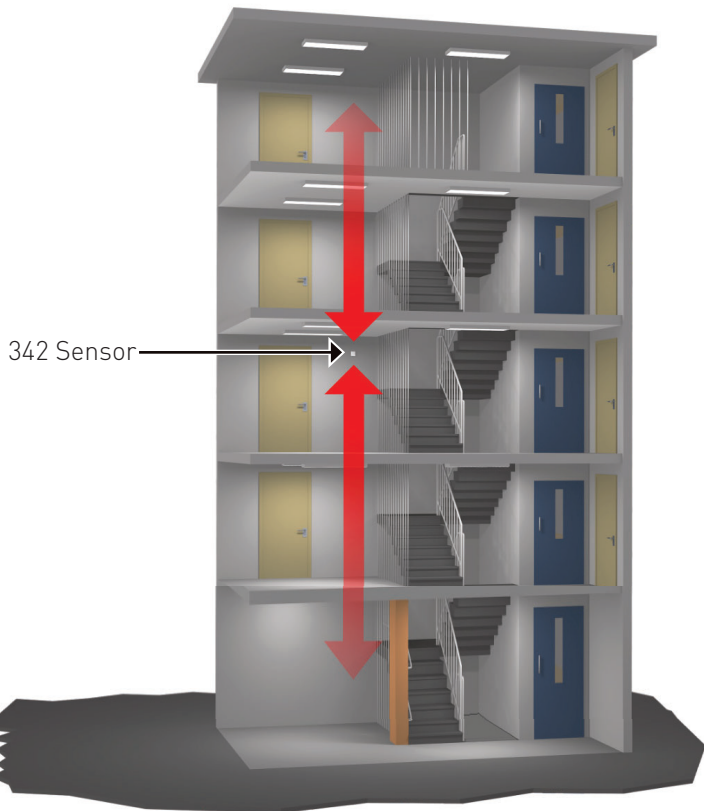
The 342 is suited for areas that may require a large number of PIR sensors or that are difficult to equip using traditional movement sensors.

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 dependant on the size of the area and the density of any material present in the walls and ceilings, such as insulation or soundproofing.

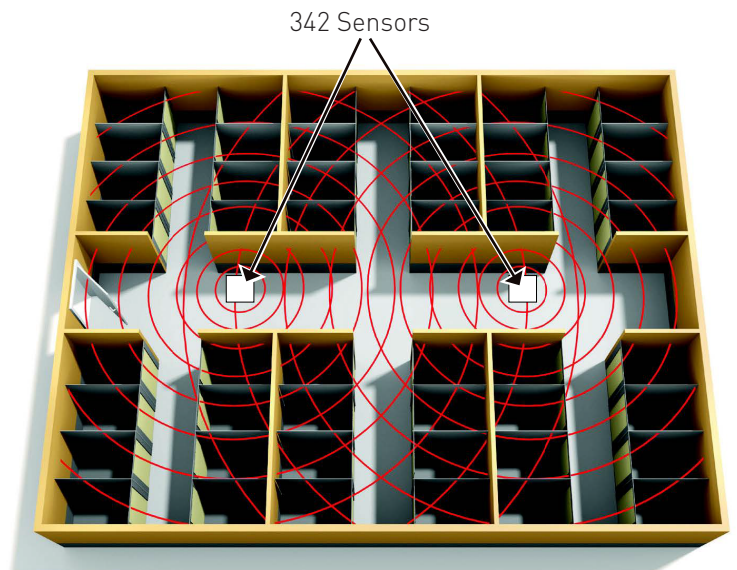


Key Features

- 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, 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 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.

Technical Data

Connections

DALI: 2-way connector block
 Wire section: 0.5 mm² – 1.5 mm² 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

Mechanical data

Max recommended mounting height: 10 m
 Area of coverage: HF - 25m radius
 LF - Approximately 2000 m³
 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

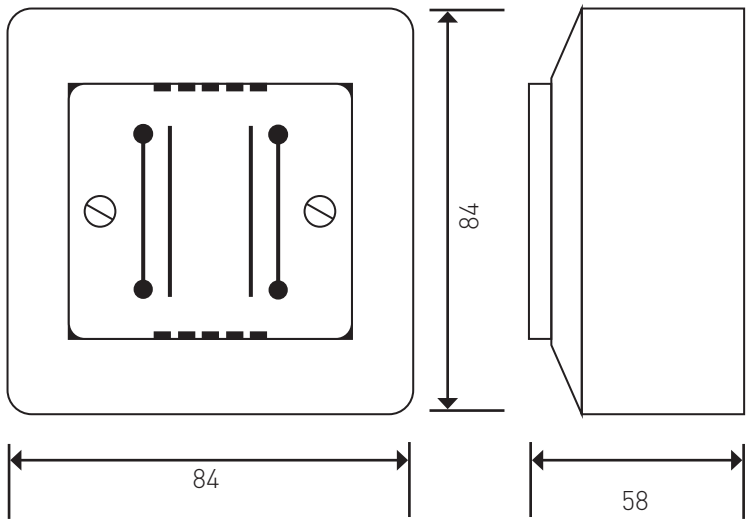
Conformity and standards

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

Software compatibility

Designer: v5.2 or later
 Toolbox: 2.2.12 or later

Dimensions (mm)



Connections and controls

