# Helvar

## 5635 Multisense R44

The 5635 Multisense R44 is a Helvar Freedom luminaire-based sensor which can be used with wireless control solutions; such as, the Helvar ActiveAhead®. 5635 Multisense combines a PIR sensor for movement detections and a light sensor for daylight harvesting. This sensor follows the Zhaga Book 20 mechanical dimensions for a rectangular sensor which suits to a 44.2 mm x17.2 mm slot on a luminaire. The front side of the 5635 Multisense IP sensor is IP65 rated allowing it to be used in applications such as parking garages.

A Helvar Freedom connecting cable of a chosen length is required to connect this sensor to a Node. This sensor can be used on the wireless self-learning lighting control solution Helvar ActiveAhead.

If the sensor is connected to non-SELV control gear, the luminaire must be Class I.

### **Key Features**

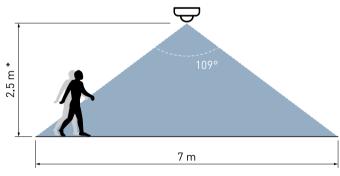
- Small Helvar Freedom luminaire based multisensor for wireless lighting solutions
- Fits to a standard Zhaga Book 20 based rectangular 44.2 mm x 17.2 mm (+/- 0.1 mm tolerance) luminaire slot
- 5635 Multisense IP offers IP65 rated front side
- Select a Helvar Freedom connecting cable length of choice



2. Light sensor

#### Sensor Detection Coverage

#### Presence detection - Passive infrared (PIR)



\*Max recommended height 4 m

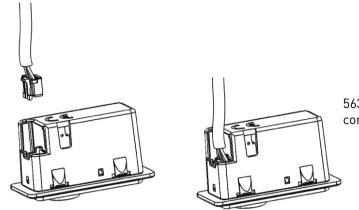
E ഹ **\**t  $\infty$  $\sim$ 0  $\sim$ c 4 ഹ 5 7 3 2 0 2 3 5 (m) 4

Detection range and sensitivity depends on the speed and size of the moving object as well as its temperature difference to the surroundings. Moving directionally towards the sensor will give worse detection than crossing the detection area on an angle.

#### Detection pattern at floor level for 2.5 m mounting height

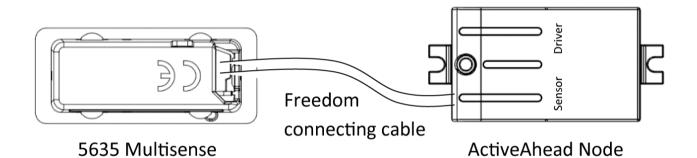


### Connections

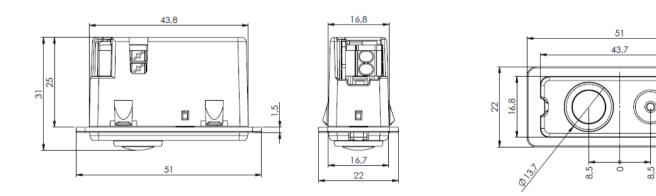


5635 Multisense has a connector for the Freedom connecting cable.

Picture below presents how a 5635 Multisense is connected to an ActiveAhead Node with a Freedom connecting cable.



### Dimensions (mm)

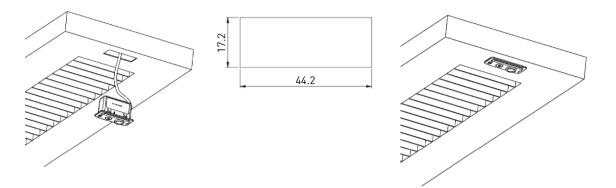




### Mounting

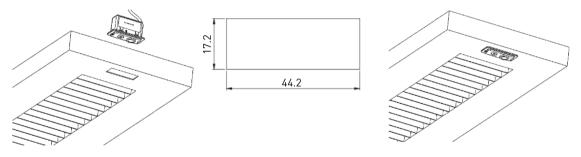
5635 Multisense can be mounted to a luminaire following the Zhaga Book 20 rectangular 44.2 mm x 17.2 mm (+/- 0.1 mm) sized luminaire slot or using the batten mountable holder accessory in the following ways.

1. Rectangular hole for mounting from outside the luminaire inwards (recommended)



Carefully push the unit into the cutout until it 'clicks' into place and sits flush with the luminaire casing. Supported luminaire frame thickness in the range  $0.4 \le d \le 1.5$  mm.

#### 2. Rectangular hole for mounting from inside the luminaire outwards

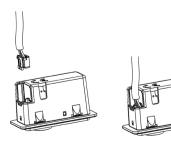


Ensure the face of the unit sits level with the luminaire casing and secure the unit in place.

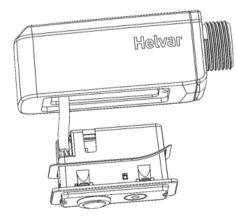


Note: For IP65 units. Ensure the rating is met when the sensor is mounted from inside the luminaire. The sensor has no seal on the outside surface.

#### 3. 5695G - R44 Sensor Holder Batten Mount accessory (sold separately)



a) Connect the Freedom connecting cable.

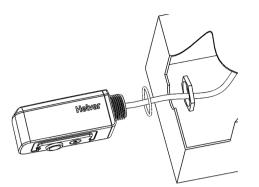


b) Remove the tape liner and feed the cable through the holder.



c) Push the unit into the holder.





d) Feed the cable through the hole in the luminaire, connect the cable to the LED driver and fasten the holder to the luminaire using the 0-ring and a M20 nut.

## Technical Data

Connections	
Freedom:	Connector for the Freedom connecting cable. Note: If the sensor is connected to non-SELV control gear, the luminaire must be Class I. Cable length must not exceed 150 cm.

Electrical data	
Input voltage:	3.0 - 3.6 V provided by Freedom Node
Max. power consumption:	36 mW

Movement detection sensor	
Technology:	Passive infrared (PIR) detects moving temperature differences
Detection coverage area:	38 m² @ 2.5 m mounting height achieved with:
	- 8 C° temperature difference to target
	- 1.0 m/s movement speed
	- 700 x 250 mm object size
Max. recommended mounting height:	4 m

Light sensor	
Technology:	Closed loop reflected light
Illuminance:	5 lx to 5000 lx
Max. recommended mounting height:	3 m

Operating and storage conditions	
Operating temperature:	0 °C to +50 °C
	Note: The temperature difference between the detection target and the background must be at least 4 °C.
Relative humidity:	Max. 85 %, noncondensing
Storage temperature:	-20 °C to +70 °C

Mechanical data	
Dimensions:	51 mm x 22 mm x 31 mm
Material (casing):	Fire-retardant PC/ABS blend
Colour:	White (RAL 9003) Grey (RAL 7035)
IP rating:	IP65 front, IP20 back
Weight:	11 g

Conformity and standards	
Conformity:	CE CA
EMC emission:	EN 55015
EMC immunity:	EN 61547
Safety:	EN 61347-2-11
Environment:	Complies with WEEE and RoHS directives.

Order codes	
5635P	Multisense R44 IP White
5635PG	Multisense R44 IP Grey
5695G	R44 Sensor Holder Batten Mount