

# Flush-Mount PIR Switching Sensor (SF-PIR-SW-01)

The SF-PIR-SW-01 is a PIR-triggered switch suitable for mounting into a ceiling void. It allows simple selection of presence or absence detection to control both lighting and nonlighting loads.

Configurable for any room occupancy style, it switches on the connected load if the area is occupied and the illuminance is lower than the specified level (with the photocell activated).

Similarly, it switches off the load if the area is unoccupied for the set time.

In absence mode, the unit can also be operated from a mains-rated retractive wall switch.

The SF-PIR-SW-01 has the following main elements:

- A mode selector with the following options:
  - Presence: auto on, auto off
  - Absence: manual on, auto off
- An illuminance threshold adjuster (10 lx to 1000 lx)
- A time adjuster (up to 40 min).

By setting the illuminance threshold adjuster to the maximum point, the unit is also suitable for nonlighting loads.

## Key Features

- Easily selectable presence or absence detection.
- Provides load control in response to changes in room occupancy and illuminance.
- Simple out-of-the-box operation.
- Energy saving.

## Operation

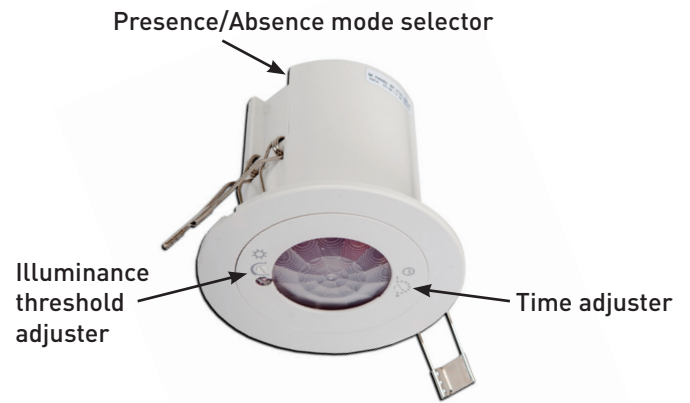
### Presence Mode (Default Mode)

Out of the box, the time-out adjuster is set to 10 s, and the illuminance threshold adjuster is set to maximum (photocell inactive). With the illuminance threshold adjuster set to maximum, the sensor will always switch on the connected load when movement is detected. There are nine time periods available from the time-out adjuster (from 10 s to 40 min).

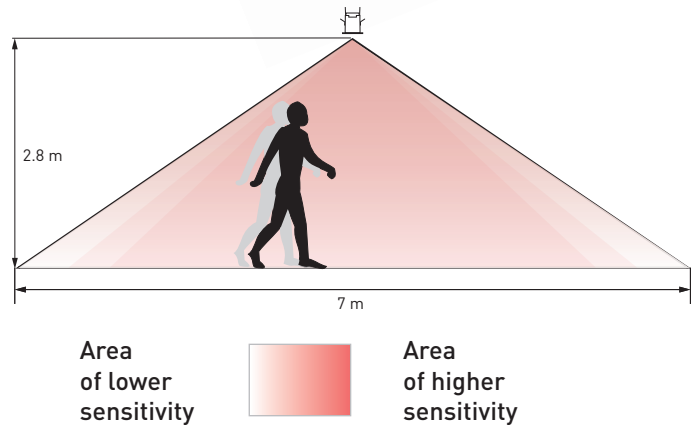
Multiple sensors can be connected to the same load in order to extend the detection zone (see 'Multiple sensors' on page 2).

### Absence Mode

With the mode selector set to absence detection mode, pressing a retractive switch connected to the sensor will switch on the connected load. Then, if no presence is detected for the selected time period, or if the retractive switch is pressed shortly, the load will be switched off.

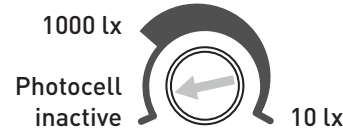


## Detection Pattern

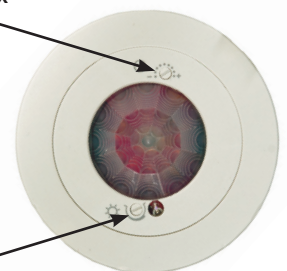
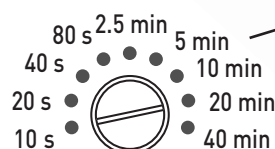


## Illuminance and Time Settings

### Illuminance threshold adjuster



### Time adjuster



## Technical Data

### Electrical data

<b>External power:</b>	Terminal block Wire section: 0.5 mm <sup>2</sup> – 2.5 mm <sup>2</sup> solid or stranded
<b>Cable rating:</b>	All cables must be mains rated.
<b>Mains supply:</b>	230 VAC, 50 Hz
<b>Loads:</b>	6 A resistive (e.g. heater) 4 A incandescent 3 A fluorescent ballast / LED driver 1 A inductive (e.g. fan/motor) Mains LED lamps: Equivalent to 1000 W halogen load Min. load: 2 W resistive, suitable for most energy saving lamps, LEDs and emergency fittings.
<b>External protection:</b>	6 A maximum (MCB or fuse)
<b>Illuminance:</b>	10 lx to 1000 lx and maximum (photocell inactive) at the PIR switch.

### Sensors

<b>Presence detector:</b>	PIR (Passive InfraRed)
<b>Detection range:</b>	360° with up to 7 m diameter when mounted at a 2.8 m ceiling height
<b>Time:</b>	10 s to 40 min

### Mechanical data

<b>Mounting hole diameter:</b>	75 mm
<b>Bezel diameter:</b>	85 mm
<b>Recommended clearance depth (incl. 50 mm for cabling):</b>	80 mm (without protective cover) 100 mm (with protective cover)
<b>Material (casing):</b>	Flame-retardant polycarbonate
<b>Finish / Colour:</b>	Matt / White RAL9003
<b>Weight:</b>	100 g
<b>IP code:</b>	IP20

### Operating conditions

<b>Ambient temperature:</b>	+10 °C to +35 °C <i>Note: The temperature difference between the detection target and the background must be at least 4 °C.</i>
<b>Relative humidity:</b>	Max. 90 %, noncondensing
<b>Storage temperature:</b>	-10 °C to +70 °C

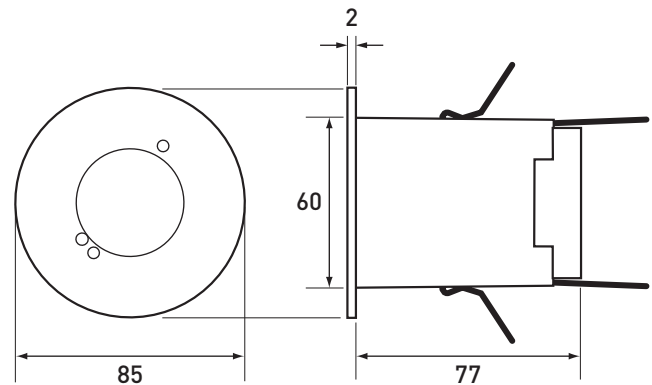
### Conformity and standards

<b>EMC emission:</b>	EN60669-2-1:2004 inc A12:2010
<b>EMC immunity:</b>	EN60669-2-1:2004 inc A12:2010
<b>Safety:</b>	EN60669-2-1:2004 inc A12:2010
<b>Environment:</b>	Complies with WEEE and RoHS directives.

### Version information

Hardware version: Rev. 1

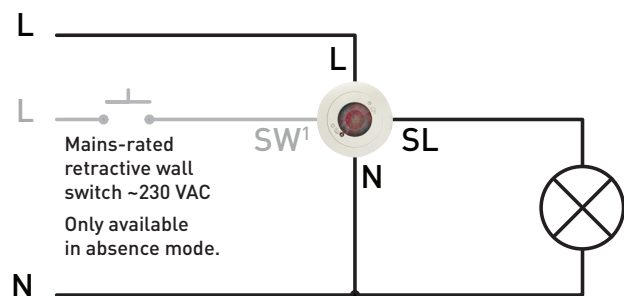
### Dimensions (mm)



Hole diameter:  $\varnothing 75$  mm

### Connections

#### Single sensor



L: Live in  
N: Neutral in  
SW<sup>1</sup>: Switch input (only in absence mode)  
SL: Switched live

#### Multiple sensors

(Presence detection mode only)

