

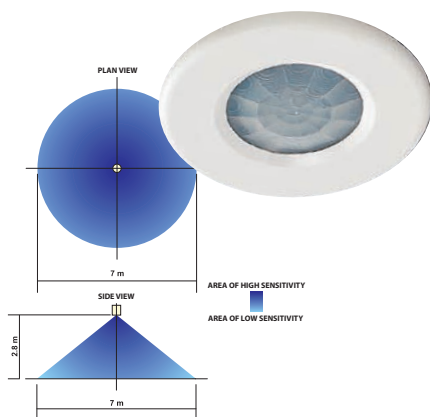
# Sensor Units

## PIR Sensors

Passive infrared occupancy switches are designed to reduce the amount of time lighting is left on unnecessarily if an area is unoccupied. Using passive infrared detection (PIR) the detector monitors a zone for occupancy; if a person is detected then the sensor will automatically turn the lighting on (presence detection). When the area is vacated, the lighting will turn off after a preset time delay (absence detection).

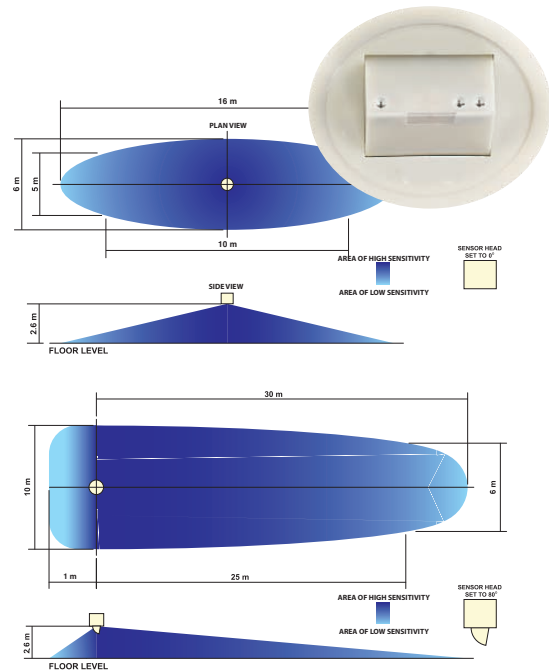
Simple combined PIR and photocell units, additionally switch the lighting off when a preset illuminance level is achieved. More advanced devices can offer DSI or DALI dimming control in addition to a switched relay output. The dimming channel of the detector can be used to control the light output of luminaires that are fitted with dimming ballasts. The detector measures the overall light level in the detection area and calculates the correct output for the luminaires, to achieve a preset lux level.

Fitting of detectors reduces energy consumption in buildings and usually savings of 40 percent can be achieved (dependent on occupancy patterns).



### Notes:

- Usual time delays - 10-30 seconds
- DSI/DALI compatibility possible
- User override possible
- Average detection range - 5-7m coverage at 2.5-3m ceiling height
- Voltage free contact versions suitable for BMS and control applications
- Typical load ratings - 6A (fluorescent), 3A (compact fluorescent)



## Microwave Sensors

With detection ranges up to 30 metres, microwave detectors are ideal for controlling luminaires over large areas. The products have no external lenses, making them unobtrusive and more vandal resistant. Adjustable heads can vary the sensor angle to produce different detection patterns and area coverage. For example with the sensor head flush in the detector housing, a coverage of 8m x 22m can be achieved; ideal for open plan areas e.g. offices and classrooms. If the detector head is angled at 80° then a detection of 8m x 30m can be achieved, ideal for corridors and aisles where 1 microwave sensor can do the job of 3-4 PIRs. An integral sensitivity adjustment allows the sensor to be fine tuned to the environment. Added features of these products can include a built in infrared sensor, which allows the user to override the lights to on or off, and a built in adjustable photocell for light level sensing.

### Notes:

- Usual time delays - 15-30 seconds
- DSI/DALI compatibility possible
- Up to 30m detection range
- No external lenses - Vandal resistant (some compact versions can be luminaire mounted)
- Volt free contact option - Suitable for BMS and control applications
- Typical load rating - 10A