

Elsys PIR/EYE/Desk functional description

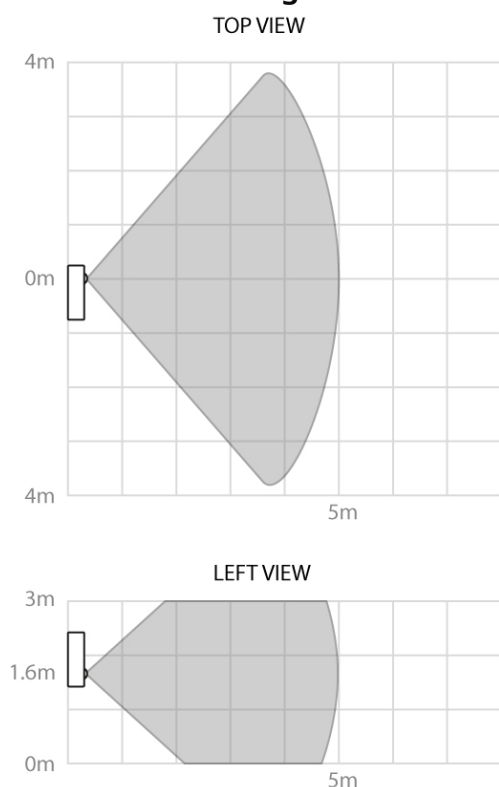
The basic specifications for the PIR sensor is also applied on the Desk and Eye sensors.

1 PIR sensor basics

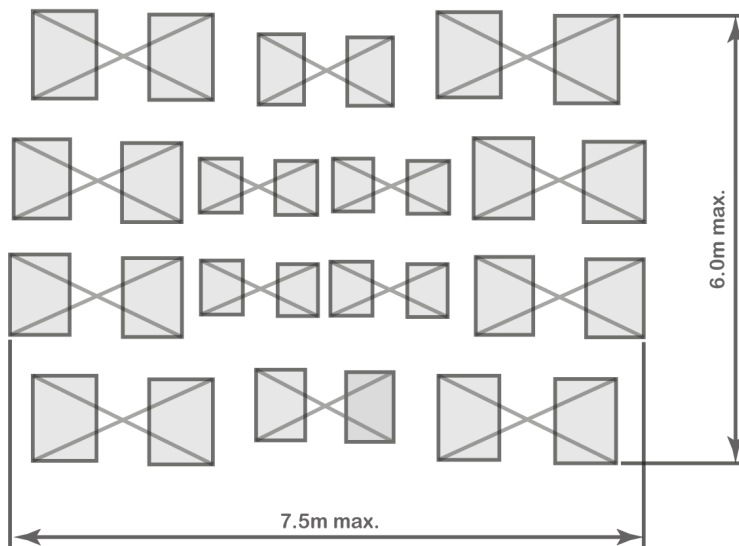
1.1 Detection specifications

Detection range and pattern of the PIR sensor is shown below. Actual range of the sensor can be influenced by environmental conditions. Avoid installing the sensor in areas where it will face direct or reflected sunlight. Avoid installing near windows, air conditioning or heating vents.

1.1.1 Detection range



1.1.2 Detection pattern

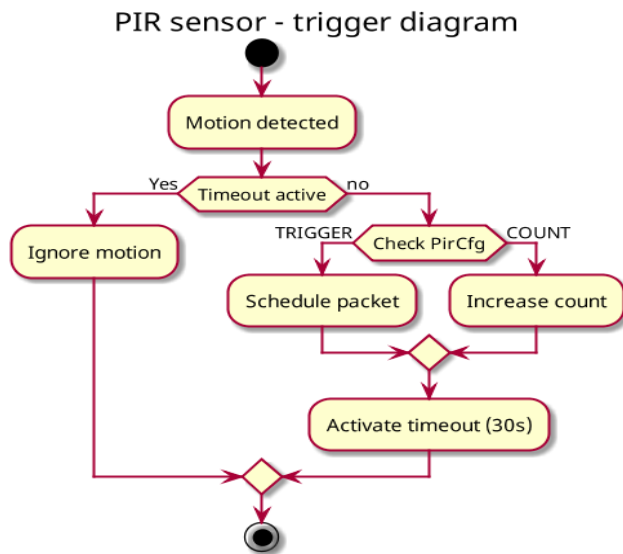


1.2 Sensor timeout

The PIR sensor consists of sensitive circuitry which requires a timeout after triggering, LoRaWAN transmissions and toggling of power to other sensors. The table below shows the different timeouts.

PIR trigger (prevents self/re-triggering)	30s
Radio TX	20s
I2C power up (for other sensors, temp+humidity etc.)	5s

1.3 Behavior



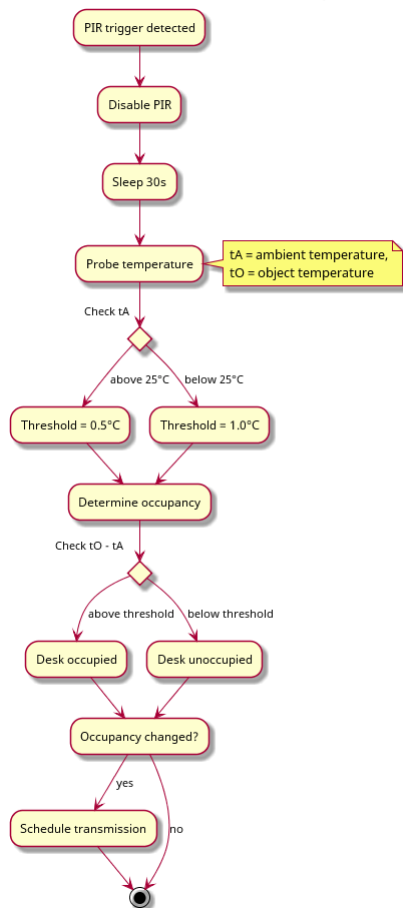
2 ERS desk (IR-temperature sensor)

2.1 Detection specifications

The ERS desk sensor uses a MLX90614 for measurement of ambient and body temperature. This sensor has an accuracy of 0.5°C across the normal usage temperatures. Detection of a human has a range of about 50 cm.

2.2 Behavior

Desk sensor - functional description



3 ERS eye (GridEye room sensor)

3.1 Detection specifications

The ERS Eye uses a Panasonic Grid-EYE® infrared sensor. This sensor has a 8x8 temperature matrix with a FOV of 60° and a range of 5m for detecting humans.

3.2 Behavior

Eye sensor - functional description

