

ENSA™

Energy Saving Devices

ENSA-PS3

INFRARED SENSOR SWITCH



INSTRUCTION MANUAL

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Thanks for choosing the ENSA-PS3 Passive Infrared Sensor Switch.

This product is an automated motion activated switch. It is based around a high sensitivity pyroelectric detector, light sensor and control electronics. The switch will turn on when it detects movement inside the detection area and will remain on until a preset time has elapsed. The sensor will only switch the load on when the measured LUX level is below a set threshold.

For installation by a qualified electrician only.

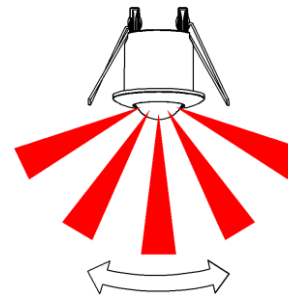
SPECIFICATIONS

AC Input Voltage	220 ~ 240VAC	Sensor Type	Pyroelectric
AC Input Frequency	50Hz	Motion Detect Shape	360°
Light Sensing	<3 ~ 2000lx (adjust.)	Motion Detect Range	6m (maximum)
On-time Delay	10s ~ 15min (adjust.)	Motion Detect Speed	0.6 ~ 1.5m/s
Rated Load	800W (R) / 400W (I)	Rec. Install Height	2.2 ~ 4.0m
Power Consumption	0.5W	Working Conditions	-20 ~ 40°C / 93%RH (max.)

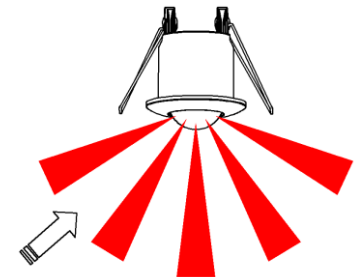
FUNCTION:

- Adjustable light sensor can be set to 3 to 2000lx via dials. Configure your own dusk to dawn settings to automatically control light activation.
- Recommended mounting height of 2.2 ~ 4m. Features 6m radius maximum detection range.
- Time delay before load switch off is adjustable between 10 seconds and 15 minutes.
- Time delay before switch off is automatically reset when the sensor detects movement, even if the light is still on. This means that intermittent movement will keep the light on.
- Lux sensing is disabled while the load is on to prevent false trigger of the light sensor.

Optimal detection path



Poor detection path

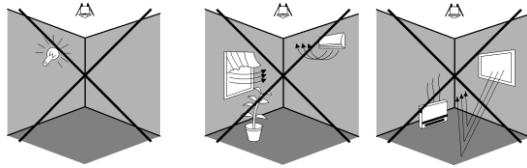


Above: To ensure the best detection range, mount the sensor in a position where people will walk across the detection field, rather than toward it.

INSTALLATION ADVICE:

As the detector responds to changes in temperature, avoid the following situations:

- Avoid pointing the detector towards objects with highly reflective surfaces, such as mirrors.
- Avoid mounting the detector near heat sources, such as vents, air conditioning, lights etc.
- Avoid pointing the detector towards objects that may move in the wind, such as curtains, tall plants etc.



CONNECTION:



WARNING

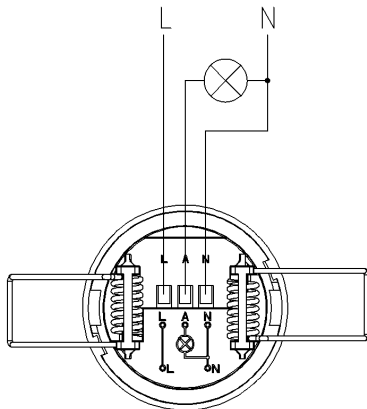
WARNING Danger of death through electric shock!

- Must only be installed by professional electrician.
- Ensure all AC power is switched off.
- Cover or shield any adjacent live components.
- Ensure device cannot be switched on.

- Turn the plastic cover on top of the sensor clockwise to adjust on-time and LUX knob. Ensure not to touch or damage the pyroelectric sensor. Reattach cover when complete.
- Loosen the screws in the connection terminal then connect the power to the sensor according to connection-wire diagram.
- Recess-mount the sensor switch by folding up the metal spring clips as shown below, then inserting into the ceiling recess. Release the springs to fix the sensor switch in place.
- After installation, power on and begin test.

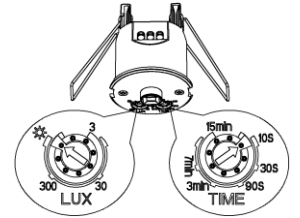
CONNECTION-WIRE DIAGRAM:


(See the right figure)



TEST:

- Set the LUX selector to the maximum (sun) setting; set the TIME selector to the minimum (10s) setting.
- Switch on AC power; during the first 30 seconds the sensor is in warm up mode and its connected load will not turn on. After this period is complete, if movement is detected by the sensor, the load will be switched on. After the detected movement stops, the load will switch off in approximately 10 seconds.
- Turn LUX selector anti-clockwise to the minimum setting (3). If the ambient light is more than three lux, the load will not turn back on after the sensed movement has stopped.



Please note that when testing in daylight, turn the LUX selector to the  (SUN) position, otherwise the sensor will not turn on the load. Also ensure that any lamp connected as a load is pointed away from, and is mounted no closer than 60cm from the sensor.

TROUBLESHOOTING:

- The load does not turn on:
 - a. Double check all wiring to the sensor and the load.
 - b. Try bypassing the sensor to ensure that the load is working correctly.
 - c. Try increasing the LUX setting to reject any ambient light.
- The motion detection sensitivity is poor:
 - a. Ensure that the lens is clean with no obstructions between the moving object and the sensor.
 - b. Test at a lower ambient temperature – All PIRs have reduced sensitivity at elevated temperatures.
 - c. Ensure that the sensor is mounted so that the detected object moves across the detection field, rather than towards it.
 - d. Ensure that installation height is between 2.2m and 4m
 - e. Try tilting the sensor to move the detection field toward the moving object.
- The sensor does not turn off the load:
 - a. Ensure that there are no moving objects or thermal drafts in the detection area.
 - b. Try reducing the TIME setting on the detector.
 - c. Ensure power drawn by the load is less than 800W (resistive) or 400W (inductive)