



230-PIR

Passive Infra-Red Detector with Run-on Timer Installation Manual



1.0 INTRODUCTION

The Passive Infra Red (P.I.R) movement detector works by detecting the warmth of moving bodies walking through the area.

When the P.I.R is triggered it will signal the fan or light to run. The “timer” will run on for the time set. The focusing of the unit is in fact made up of a number of smaller lenses known as facets or zones, each zone is focused on a different spot to give a wide area of coverage.

The P.I.R. is triggered when walking from one zone to the next. Therefore for optimum detection sensitivity it will operate best when walking across the zone patterns.

Code Description

1	-	2
230	-	PIR

1. Voltage: **230** = 230V Supply
2. Detector Type **PIR** = 10A (max load) passive infra-red detector with adjustable timer.

1 230-PIR Sensor



When using for lighting and fan control, whilst this is suitable for several fans, only one light fitting should be connected directly to the P.I.R.

IMPORTANT



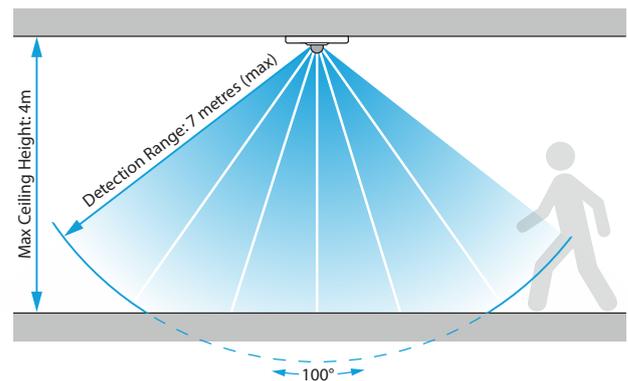
Please note there are high voltages which exist inside the unit and under no circumstances should it be opened, there are no user serviceable parts inside.

2.0 INSTALLATION

The P.I.R. must be installed in accordance with the latest IEE recommendations.

Before installing the unit or making any adjustments the electricity must be switched off.

2 Typical ceiling-mounted application



3 Typical wall-mounted application



2.1 Positioning the P.I.R. unit

- For best results never position over a heat source.
- Never position in a draught.
- Do not place in direct sunlight.
- Take account of exit/entry points.
- Always seal PIR cable entry.
- Fix securely to wall or ceiling.
- Avoid obstructions such as screen/ furniture.
- Be conservative on range and angle.
- Avoid walking towards the PIR for prime detection.
- Avoid long ranges for instant triggering.

Before installing the switch, the best position must be sought bearing in mind that the unit has a range of up to 6 metres and will provide 100° coverage in all directions. It also should be noted that the units are not suitable for use in shower cubicles, and should always be used in an indoor environment.

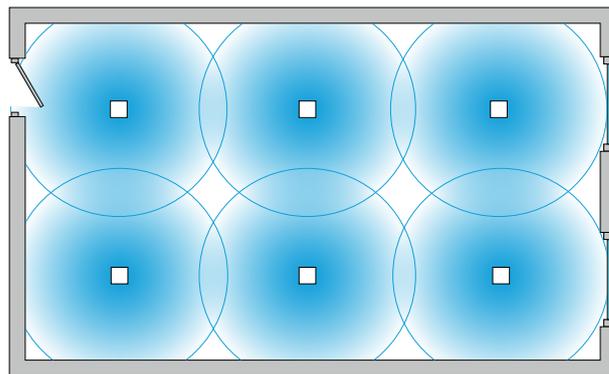
To avoid unnecessary triggering the P.I.R should not be mounted in a draught or directly over a heat source such as a radiator.

CAUTION

Overloading the unit will result in permanent damage, therefore it should not be used on loads over those stated on the P.I.R.

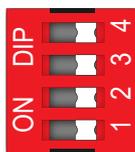
After installing the fan the P.I.R should be wired to the switch/timer.

4 Example of Room Coverage



2.2 Adjusting the Timer

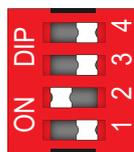
To adjust the timing on the switch, set the DIP switches to one of the configurations below.



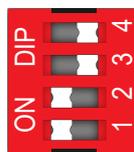
10-15 secs
TEST MODE



2 minutes



3 minutes



4 minutes



5 minutes



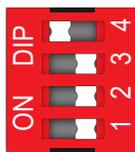
7 minutes



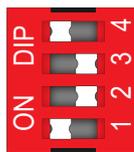
10 minutes



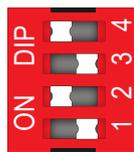
15 minutes



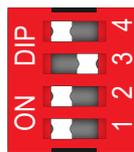
20 minutes



25 minutes



30 minutes



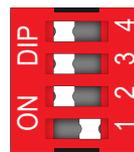
35 minutes



40 minutes



45 minutes



50 minutes



60 minutes

PLEASE NOTE



Each time the PIR detector is triggered, the full run-on time period will commence.

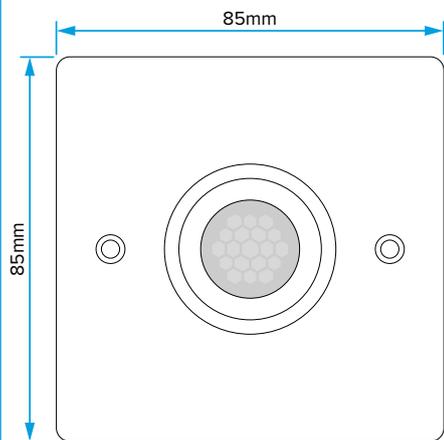
2.3 Adjusting the Sensitivity

Set the DIP switches to **TEST MODE** (Shown in Section 2.2) and gently rotate the LUX potentiometer (Figure 5) anti-clockwise towards the plus (+) to the desired ambient light level that is required. If the LUX is set too low the switch will not activate.

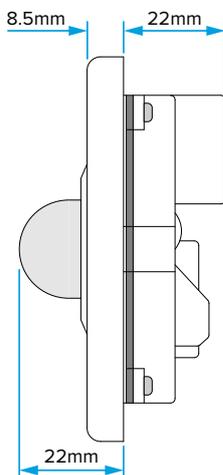
3.0 DIMENSIONS

5 Example of Room Coverage

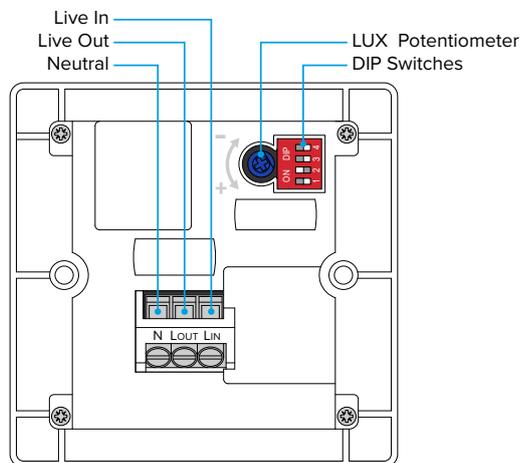
Front View



Side View



Rear View



4.0 ELECTRICAL INSTALLATION

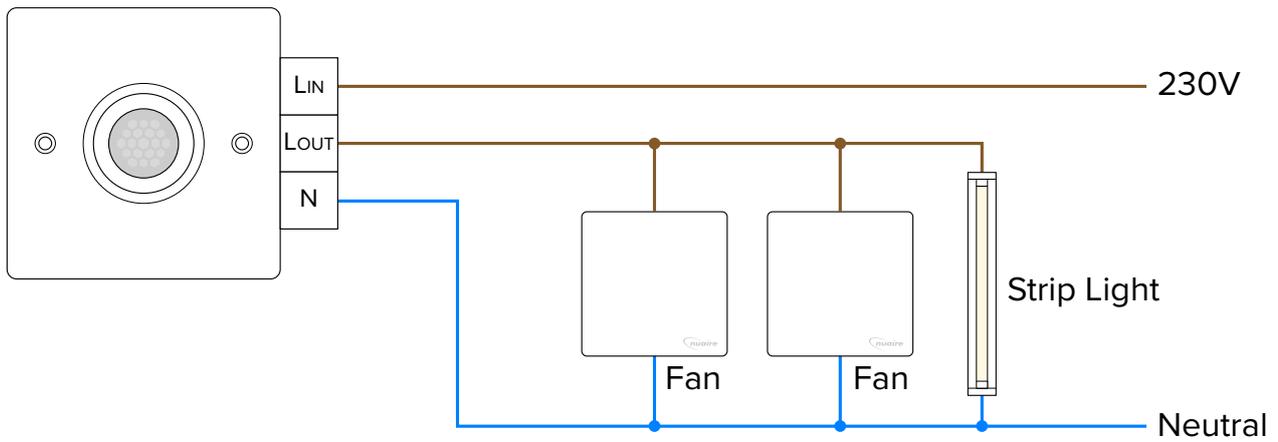
- Nominal Voltage:** 230V ±10% 40-60Hz
- Output:** 10A max. switch on resistive or inductive loads
- Minimum load:** 5 Watts
- Range:** Up to 7 metres dependent on body temperature
- Angle of Detection:** 100°
- Activation Time:** Approx 2-60 minutes run-on from last detection
- Installation Height:**
 - Wall Mounting:** 2-2.5 metres
 - Bathroom:** 2 metres
 - Ceiling Mounting:** 2-4 metres

4.1 Powering Up the Unit

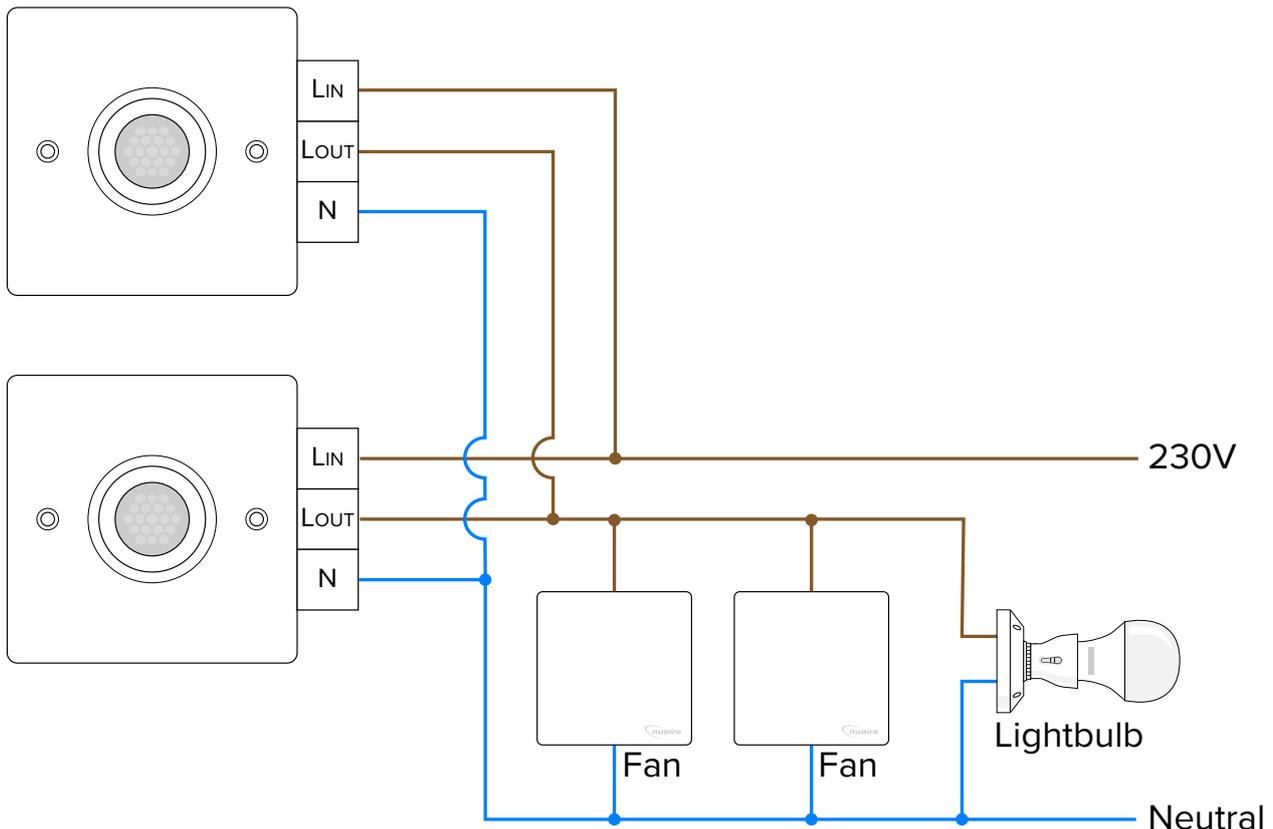
When the installation is complete, switch on the mains and wait for the P.I.R to settle down. This could take up to 60 minutes depending on how the timer adjustment is set. To check that the P.I.R will settle down and switch off the fan, the P.I.R can be temporarily “blinded” with a piece of paper in front of the lens to stop the circuit triggering each time.

4.2 Wiring Diagrams

6 Single Detector Operation Wiring



7 Dual Detector Operation Wiring



5.0 WARRANTY

The 1 year warranty starts from the day of delivery and includes parts only.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuairé International Sales office for further details.

6.0 END-OF-LIFE AND RECYCLING

Ensure that Nuairé product is made safe from any electrical / water / refrigerant supplies before dismantling commences. This work should only be undertaken by a qualified person in accordance with local authority regulations and guidelines, taking into account all site based risks.

Where possible Nuairé use components which can be largely recycled when the product reaches its end-of-life:

- Fans, motors, controls, actuators, cabling and other electrical components can be segregated into WEEE recycling streams.
- Sheet metal parts, aluminium extrusion, heating/cooling coils and other metallic items can be segregated and fully recycled.
- EPP, plastic ducting, nylon corner pieces, plastic heat exchangers, packaging material and other plastic components can be segregated into mixed plastic and widely recycled.
- Cardboard packaging, wood, used filters and other paper components can be largely recycled or fully processed in energy from waste centres.
- Remaining Items can be further segregated and processed in accordance with the zero waste hierarchy. Please call After Sales Support for further information on items not listed above.

7.0 AFTER SALES AND REPLACEMENT PARTS

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

If ordering spares please quote the serial number of the unit together with the part number, if the part number is not known please give a full description of the part required. The serial number will be found on the identification plate attached to the unit casing.

Telephone 02920 858 400
aftersales@nuaire.co.uk

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.