Variants

As DANLERS design and manufacture in the UK, variants can be supplied, coded by the following suffixes and applied in this order:

- 12V or 24V — 12V or 24V (ac or dc) operation
- VF — Volt Free contacts
- GOLD or LG — Gold or Logic Gold contacts
- NC — Normally Closed contacts
- 3M — 3 Metre (or other) length flex

Variant details are covered in an enclosed addendum sheet if applicable.

Troubleshooting

The load will not switch on:

- The LUX adjuster is set too low and is inhibiting the switch.
- The moving body is not emitting more IR than the background. (Person wearing insulating clothing in a warm environment)
- Person is too far from the PIR switch, see detection diagram.
- Person is moving unusually slowly (perhaps when testing).

The load switches on when nobody is present:

- Heater causing infra-red variations in a small cold room. Consider using the CEFL PIR 2DRS, double detection version.
- Ceiling void drafts or opening sealed doors causing air movement. Consider using the CEFL PIR XS2D, extra sealed version.
- Please contact DANLERS for further technical support.

Precautions and Warranty

This product conforms to BS EN 60669-2-1.

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. 6 amps over current, 1kV over voltage. Please ensure that this device is disconnected from the supply if an insulation test is made.

This product is covered by a warranty which extends to 5 years from the date of manufacture.

Products available from DANLERS

- PIR occupancy switches • Daylight linked dimmers • Manual high frequency dimmers
- Photocells • Radio remote controls • Time lag switches • Outdoor security switches
- Dimmers • Heating, ventilation and air-conditioning controls • Bespoke / O.E.M. products

Please call for more information or a free catalogue, or visit our website.

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DANLERS

Installation notes

Ceiling flush PIR occupancy switches

CEFL PIR **CEFLP PIR**

CEFL PIR 10A **CEFL PIR SEALED**

DANLERS ceiling flush passive infra-red occupancy switches (PIR) can be flush mounted into suspended and plasterboard ceilings (diagram A). They include a 2 metre connecting flex to make installation quicker and easier.

These PIR switches incorporate a passive infra-red quad sensor to detect movement of a warm body within their detection zone (diagram B) and a photocell to monitor the ambient light level.

Upon detecting movement, if the ambient light is dark enough, the PIR switch will turn the load on. The ambient threshold can be set by the user to between approximately 100 lux and infinite lux (photocell inactive) via the LUX adjuster (diagram E).

If no more movement is detected within a pre-selected time, then the PIR switch will turn the load off. This time lag can be set via the TIME adjuster to 10 seconds, 20s, 40s, 1 minute 15 seconds, 2m30s, 5m, 10m, 20m or 40 minutes (diagram E).

CEFL PIR variants

CEFL PIR	Standard flush mounted PIR switch
CEFLP PIR	Includes a Klik-AX plug.
CEFL PIR 10A	Up-rated to switch 10A resistive loads.
CEFL PIR SEALED	Suitable for bathrooms, zones 2 and 3.

Loading

These PIR switches can switch up to 6 amps † (1500W) of:

- Fluorescent lamps, high frequency or switch start
- Incandescent or mains halogen lamps (recommended with integral safety fuse)
- Electronic or wire wound transformers.

† The CEFL PIR 10A can switch up to 10 amps (2500W) of the above loads.

They can also switch up to:

- 1 amp (250W) of fans or most metal halide lamps.

Installation procedure

1. Please read these notes carefully before commencing work.
   In case of doubt please consult a qualified electrician.
2. POSITIONING: The PIR occupancy switch (PIR) should be installed to achieve correct coverage of the area, see diagram B. If the photocell override facility is required, the switch must be located above an area where daylight can give greater illumination than the artificial light. Avoid locating this product where it is exposed to drafty conditions (exposed lobbies, open ceiling voids or near fans) or near heat sources. To cover large areas PIRs should be spaced in a 5 metre grid formation.
3. The greatest energy savings will be achieved if each PIR controls an independent set of lamps. They can be wired in parallel but this should ideally be limited to three, see diagram E.
4. Make sure the power is isolated from the circuit.
   The PIR should be connected as shown in diagrams C & E:

Brown	L	Live in
Blue	N	Neutral in
Black	SL	Switched Line out ('A' terminal of Klik-AX plug)

Start-up mode

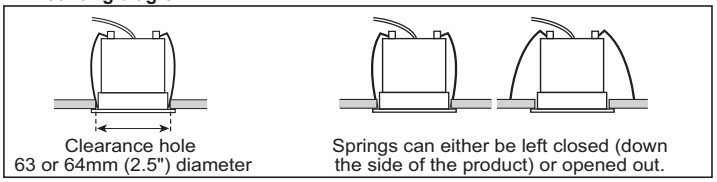
When the PIR is powered up, it will switch on the load for 1 minute, the load will then switch off and the PIR will enter its Operating Mode. If a manual override-off switch is positioned before the PIR in the circuit (diagrams C & E, note 1) it will do this each time the wall switch is switched on. Alternatively, if the wall switch is placed after the PIR (diagrams C & E, note 2) it will not enter the start-up mode each time.

Time and Lux set-up

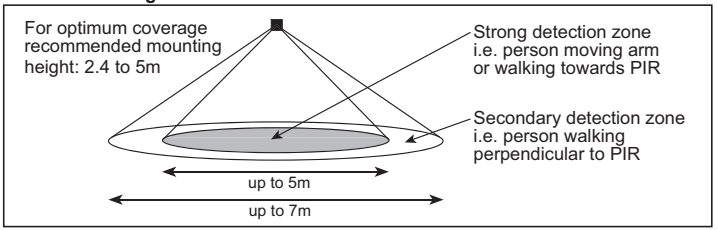
For convenience, ensure that the TIME is set to the minimum when setting up the LUX level. Afterwards set the TIME to a value suitable for the application, making reference to diagram B.

The LUX is best set up when the local ambient light is at approximately the minimum desired working light level, a lux meter placed on the surface under the PIR may help. With the LUX set fully clockwise wait for the PIR to switch off. Rotate the LUX adjuster slowly anticlockwise (- to +), whilst waving your hand approximately 1m below the PIR, until the load switches on.

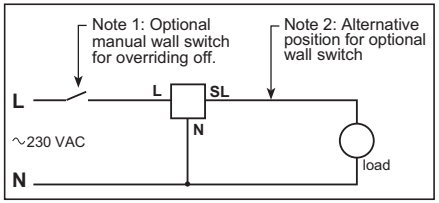
A: Mounting diagram



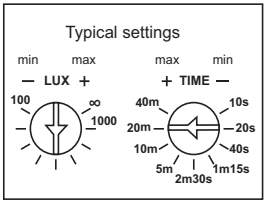
B: Detection diagram



C: Wiring diagram, single PIR



D: Adjusting time and lux



E: Wiring diagram, multiple PIRs