Variants

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

- 12V or 24V — 12V and 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

The details of these variants are covered by an enclosed addendum installation note if applicable.

Fault finding

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 diagrams.
- Person is moving unusually slowly (perhaps when testing).

The load switches on when nobody is present:

- Heating source causing IR variations
- Direct light pollution causing IR variations
- Ceiling void drafts or fans causing excessive air movement.

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.

Also 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 Long Range PIR occupancy switch

CEFL PIR LR

DANLERS ceiling long range PIR occupancy switches are mains powered (230Vac) and can be mounted into the ceiling void through a ceiling board or within a lighting luminaire (diagram A). They incorporate a 2 meter connecting flex to make installation quicker and easier.

They 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.

On detecting movement, if the ambient light level is not above an ambient threshold, the PIR will switch 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 C).

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

Loading limits

DANLERS CEFL PIR LR units can switch up to 6 amps (1500W) of:

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

They can also switch up to:

- 2 amps (500W) of compact fluorescent or LED lamps (typically 50 lamps)
- 1 amp (250W) of Fans.

Installation procedure

1. Please read these notes carefully before commencing work.
   In case of doubt please consult a qualified electrician.
   Make sure the power is isolated from the circuit.
2. CEFL PIR LR should be installed to achieve correct coverage of the working area (diagram B).
3. The greatest energy savings will be made if the CEFL PIR LR individually controls a set of lamps. They can be wired in parallel but this should ideally be limited to three or less.
4. The CEFL PIR LR should be connected as:
   L Live in
   N Neutral in
   SL Switched Line out
5. Typical wiring diagrams are shown in diagrams D and E.
6. Once the wiring has been completed and verified, switch on the supply and test the operation.

Start-up mode

When the CEFL PIR LR is powered up, it will switch on the load for 1 minute, it will then switch off and enter its Operating Mode. If a manual override-off switch is positioned before the CEFL PIR LR it will do this each time it is switched back to Operating Mode. Alternatively, if the wall switch is placed after the CEFL PIR LR it will not enter the start-up mode.

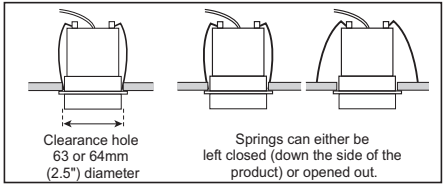
Lux set-up

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.

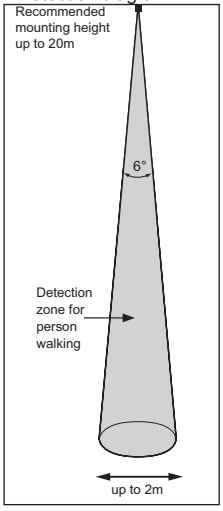
The LUX is best set up when the local ambient light is at approximately the minimum desired working light level, a lux meter placed on the working surface may help. With the LUX set fully clockwise wait for the PIR to switch off. Rotate the LUX adjuster slowly anticlockwise (- to +), whilst waving your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

This LUX setting point can be used for other devices located where the current lighting level is not at the desired minimum working level.

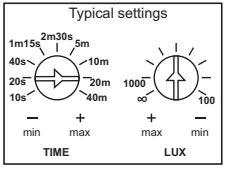
A: Mounting diagram



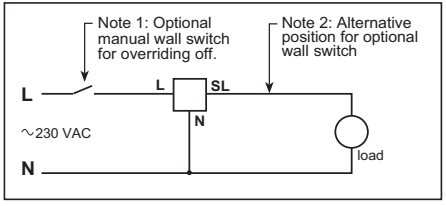
B: Detection diagram



C: Adjusting time and lux



D: Wiring diagram, single PIR



E: Wiring diagram, multiple PIRs