

Troubleshooting

The load will not switch on when the momentary switch is operated:

- The LUX adjuster is set too low and is inhibiting the switch.

The Absence detector switches off when the room is occupied:

- The occupation is outside of the detection zone (see diagram A), movements are too small or too infrequent. Increase the TIME adjuster.

Precautions and Warranty

This product conforms to BS EN 60669-2-1 and BS EN 55015.

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. a 10 amp circuit breaker and voltage surge protection. 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
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Installation notes

Ceiling Surface PIR absence switch

CESFA PIR

DANLERS ceiling surface passive infra-red absence switch (CESFA PIR) can be ceiling mounted on a square pattress box (DANLERS code: PABO). The CESFA PIR incorporates a passive infra-red quad sensor to detect movement of a warm body within its detection zone (diagram A) and a photocell to monitor the ambient light level.

When entering the room, if the ambient light is dark enough, the lights can be activated by pressing a momentary light switch for less than 2 seconds. The ambient threshold can be set by the user to between approximately 30 lux and infinite lux (photocell inactive) via the LUX adjuster (diagram B). If no more movement is detected within a pre-selected time, then the CESFA PIR will switch the load off. This time lag can be set via the TIME adjuster to 10 seconds, 20s, 40s, 1 minute 15 seconds, 2m 30s, 5m, 10m, 20m or 40 minutes (diagram B).

Pressing and holding the momentary switch (for 2 seconds or more) (while CESFA is in its ON state) will override the control enabling the load to be switched OFF. This is useful when a darkened room is required or if the user does not wish the time lag period to elapse.

Allow a minimum of 1 second to elapse after the lights have gone off before depressing the momentary switch (allowing CESFA PIR to reset).

Loading

The switch should only be connected to a 230V 50Hz AC supply.

These PIR switches can switch up to:

6 amps (1500W) of resistive loads.

6 amps (1500W) of fluorescent loads.

3 amps (750W) of electronic and wire wound transformer loads.

2 amps (500W) of CFL, 2D lamps, LED Drivers and LED lamps and fittings.

1 amp (250W) of fans

Minimum load 2W resistive, suitable for most energy saving lamps, LEDs and emergency fittings.

For larger loads, the CESFA PIR can be used to switch a contactor.

Installation procedure

1. Please read these notes carefully before commencing work.
In case of doubt please consult a qualified electrician.
2. **POSITIONING:** The CESFA PIR should be installed to achieve correct coverage of the area, see diagram A. 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 windy or drafty conditions (exposed lobbies, open ceiling voids or near ventilation fans) or near heat sources. To cover large areas CESFA PIRs should be spaced in a 5 metre grid formation.
3. The greatest energy savings will be made if each CESFA PIR controls an independent set of lamps. They can be wired in parallel but this should ideally be limited to three, see diagram D.
4. Make sure the power is isolated from the circuit.
The CESFA PIR should be connected as shown in diagrams C & D:
L - Live in. N - Neutral in. AB - Absence in. SL - Switched Line out.

Start-up mode

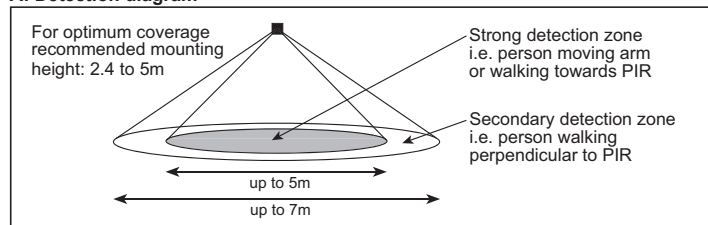
When the CESFA PIR is powered up, it will switch on the load for 1 minute, the load will then switch off and the CESFA PIR will enter its Operating Mode.

Time and Lux set-up

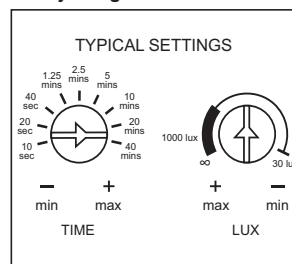
For convenience, ensure that the TIME is set to the minimum when setting up the LUX level. Afterwards set the TIME to a value suitable for the application, making reference to diagram B.

The LUX is best set up when the local ambient light is at approximately the minimum desired working light level. With the LUX set fully clockwise wait for the CESFA PIR to switch off. Step the LUX adjuster slowly anticlockwise (- to +), at each position operate the momentary wall switch and continuing until the lamps switch on.

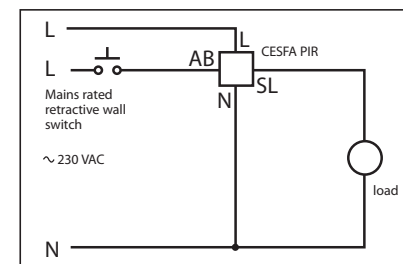
A: Detection diagram



B: Adjusting time and lux



C: Wiring diagram, single Absence Detector



D: Wiring diagram, multiple Absence Detectors

