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
- G or LG — Gold or Logic Gold contacts
- NC — Normally Closed contacts
- SD — Barrel fixed in the Straight Down position.

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:

- PIR located close to a heat source, fan or in draught flow.
- Ceiling movement, especially in metal mezzanine warehouses.

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
- 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 directional PIR occupancy switch

CEDR6PLR

DANLERS ceiling directional long range passive infra-red occupancy switches (PIR Switch) can be ceiling mounted into a Klik-AX socket. These PIR switches incorporate a passive infra-red quad sensor to detect movement of a warm body within their detection zone (diagram A) 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 30 lux and infinite lux (photocell inactive) via the LUX adjuster (diagram C).

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 C).

Both adjusters are located underneath the end of the adjustable barrel. The barrel of this PIR switch can be rotated through 360 degrees and angled between horizontal and 45 degrees down. The longest detection range is achieved when the barrel is horizontal.

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.

Larger loads can be switched via a contactor.

Installation procedure

1. Please read these notes carefully before commencing work.
   In case of doubt please consult a qualified electrician.
2. The PIR occupancy switch (PIR) should be installed to achieve correct coverage of the area, see diagram A. If the photocell override facility is required, the PIR must be located in a position where daylight can give greater illumination than the artificial light. Avoid locating this product where it is exposed to draughty conditions or near to heat sources.
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 (diagram F).
4. Make sure the power is isolated from the circuit.
   The ceiling directional PIRs mount into a Klik-AX socket
   DANLERS part numbers- circular CESO, square CESO SQ.
   These should be wired as shown (diagram E):
   L Live in
   N Neutral in
   A Switched Line out

Start-up mode

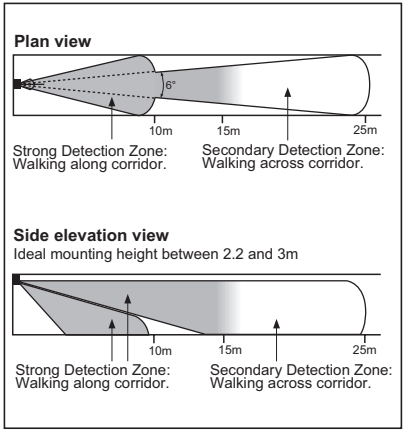
When the PIR is powered up, it will switch on the load for 1 minute, the load will then switch off and the PIR will enter its Operating Mode. If a manual override-off switch is positioned before the PIR in the circuit (diagrams D & F, note 1) it will do this each time the wall switch is switched on.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

Time and Lux set-up

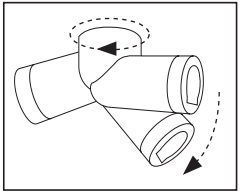
For convenience, ensure that the TIME is set to the minimum when setting up the LUX level. Afterwards set the TIME to a value suitable for the application, making reference to diagram C.

The LUX is best set up when the local ambient light is at approximately the minimum desired light level. 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 in front of the PIR, until the load switches on.

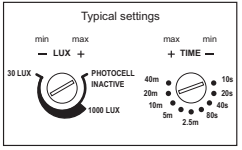
A: CEDR 6PLR Detection diagram



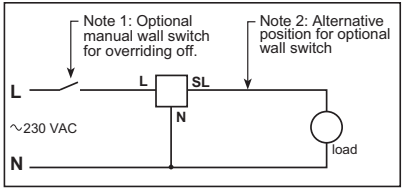
B: Barrel positioning



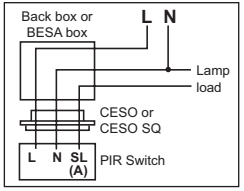
C: Adjusting time and lux



D: Wiring diagram, single PIR



E: Wiring diagram, socket



F: Wiring diagram, multiple PIRs