Variants

CEFL PIR DSIP: PIR occupancy switch (presence detection) with DSI daylight linked dimming (does not require a momentary (retractive wall switch).

Troubleshooting

The load will not switch on:

- 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).

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

PIR occupancy switch with DSI dimming

CEFLA PIR DSIP

DANLERS passive infra-red occupancy (absence detection) switches with closed loop control (CEFLA PIR DSIP) can be used to control high frequency DSI dimmable ballasts. The product can be flush mounted into suspended and plasterboard ceilings (diagram A). It includes two 2 metre connecting flexes, one 4-core cable for the supply and one 2-core cable for the DSI control.

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.

Functions

When entering a zone of detection a momentary wall switch must be pressed to send a signal to the PIR to switch the lights ON at maximum and start the closed loop control to maintain the preset lux level value (LUX) between 30 and 1000 lux (default value 1000 lux). See diagram D.

NO BACKGROUND ILLUMINANCE RUN ON TIME SET: If no further movement is detected the lights will switch OFF after the set PIR hold timer (TIME) has expired. This time lag can be set via the TIME adjuster to 10 seconds, 20s, 40s, 80s, 2m30s, 5m, 10m, 20m or 40 minutes (default value 10 seconds). See diagram C. Alternatively, the momentary switch can be pressed for more than 2 seconds to switch the lights OFF.

BACKGROUND ILLUMINANCE RUN ON TIME SET: If no further movement is detected the lights will FADE to minimum after the set PIR hold timer (TIME) has expired OR if the momentary wall switch is pressed for more than 2 seconds. The lights will then stay at minimum until the background hold timer (RUN ON) has expired. The RUN ON time can be set via the RUN ON adjuster to 0, 1, 2, 5, 10, 15, 20, 30 minutes or infinite (default value is 0). See diagram D.

If the momentary wall switch is pressed for less than 2 seconds while the background hold timer is counting down, the lights will switch ON at maximum and start the closed loop control to maintain the set lux level value.

Loading

These PIR switches can switch up to:

6 amps (1500W) of dimmable fluorescent lamps.
2 amps (500W) of CFL, LED Drivers and LED lamps and fittings.

CEFLA PIR DSIP has an integral DSI Power Supply Unit suitable for use with up to 12 DSI ballasts, assuming each ballast has a constant current output of 1mA.

Installation procedure

1. Please read these notes carefully before commencing work.
   In case of doubt please consult a qualified electrician.
2. POSITIONING: The CEFLA PIR DSIP should be installed to achieve correct coverage of the area, see diagram A. Avoid locating this product where it is exposed to drafty conditions (exposed lobbies, open ceiling voids or near fans) or near heat sources.
3. Make sure the power is isolated from the circuit.
   The PIR should be connected as shown in diagram E:

Thick wire			Thin wire	(DSI control lines)
Brown	L	Live in	Red / Blue	Polarity independant
Blue	N	Neutral in		
Black	SL	Switched Line out		
White	SW_1	Switch / Input		

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.

Time / Run-on / Lux set up

The LUX adjuster spindle on the side of the PIR is used to regulate the automatic daylight linked dimming function lux level (see diagram D opposite). This should be adjusted in situ by rotating the LUX adjuster slowly anticlockwise
(+ to -) so that the desired level of brightness is achieved under the luminarie(s) being controlled.

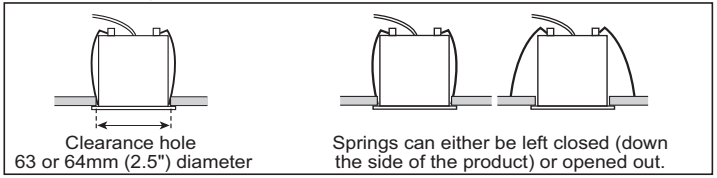
If the LUX spindle is quickly turned the lights can be dimmed up and down to the required LUX level by further rotation of the LUX spindle. Once the correct level is achieved and there has been no further adjustment to the LUX spindle, CEFLA PIR DSIP will go through a 30 second delay before the automatic closed loop control will start.

CEFLA PIR DSIP incorporates a fixed 20 second fade rate from maximum to the set back level.

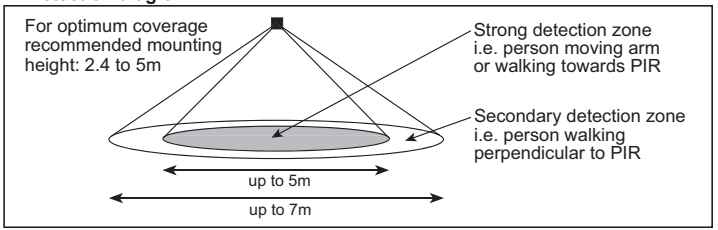
Sensitivity

CEFLA PIR DSIP incorporates a sensitivity adjuster, labelled 'SENS', to reduce the range of detection from 100% to 50% in 9 steps (see diagram C opposite).

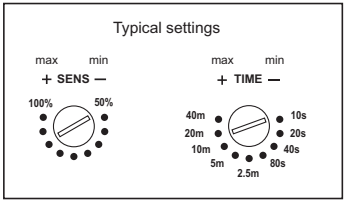
A: Detection diagram



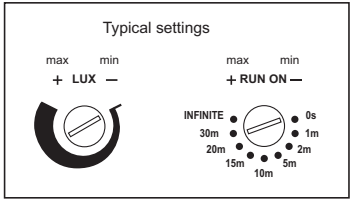
B: Detection diagram



C: Adjusting SENSITIVITY and TIME



D: Adjusting LUX and RUN-ON



E: Wiring diagram, CEFLA PIR DSIP controlling several DSI dimmable ballasts