

# DANLERS

## Installation notes

### Batten Mount Exterior PIR switch (IP66 rated)

#### BMEXPIR

DANLERS IP66 rated Batten Mount Exterior Passive Infra Red switch (PIR) can be mounted onto the end of lighting battens via the 20mm knock out. The switch includes the connection 20mm thread.

The detection range is about 5 metres over 120 degrees, the range reduces to about 7m at the extremes to prevent nuisance switching.

On detecting movement, if the ambient light is dark enough, the BMEXPIR will switch the load on. The ambient threshold can be set by the user to between approximately 10 and 1000 lux via the internal LUX adjuster (diagrams C and E). The photocell can be disabled via the internal mode button (see overleaf).

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, 20 seconds, 40 seconds, 80 seconds, 2 minutes 30 seconds, 5 minutes, 10 minutes, 20 minutes or 40 minutes (diagram D).

#### 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.

#### Trouble shooting

The BMEXPIR cannot be made to switch on during bright days

- The BMEXIR should have the lux set to inactive via the internal mode button (see diagram B)

The PIR does not detect

- Person is too far from the BMEXPIR switch, see detection diagram.
- Person is moving unusually slowly (perhaps when testing).

The PIR stops working

- Ensure the unit is mounted correctly so that no water can enter.

The PIR False triggers

- Detector is exposed to air movement on breezy days.

#### 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.

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## 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. If mounting on a lighting batten make reference to diagram B: Remove the 20mm thread from the PIR and insert it through the 20mm knockout hole with the thread facing outwards.
3. The detector should be connected as shown in diagram A  
Brown - Live in. Blue - Neutral in. Black - Switched Line out.
4. Feed your cable through the thread and with the PIR facing downwards tighten the 20mm thread to ensure a tight seal.
5. Make sure the power is isolated from the circuit.
7. Once the wiring has been completed and verified, switch on the supply and test the operation.

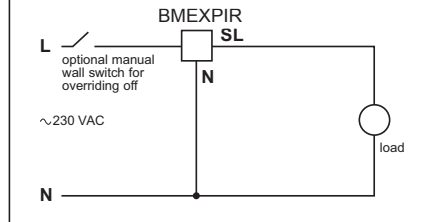
## Lux and Time set-up

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

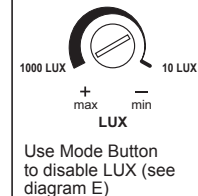
8. When powered up, (after 1 minute stabilisation time) turn lux pot (diagram C) fully clockwise and time pot fully anticlockwise.
9. Press the MODE button (diagram E) for approximately 0.5s. The LED will go green indicating the LUX cell is active. (Or press and hold button for approx. 4 seconds – LED goes RED indicating Lux cell INACTIVE). Repeating these steps will toggle the functionality.
10. If lux cell active, vacate area until PIR switch switches the load off (should be after 10 seconds).
11. With the LUX as desired on working plane from daylight ONLY (no artificial light), wind the lux pot anticlockwise whilst waving your hand in front of the PIR cell. When the PIR switches the load ON, stop turning the pot. The Lux inhibit level is now set.
12. Turn the PIR time to the desired timeout (diagram D). Whenever a person is detected, the time lag will start again and the load will stay switched on.

Precondition	Power-up Condition
Lux Cell Inactive Relay OFF	Lux Cell Inactive Relay comes ON for 1 Min. After 1 min. ready for detection.
Lux Cell Active Relay ON	Lux Cell Active Relay stays ON for 1 Min. After 1 min. ready for detection.
Lux Cell Active Relay OFF	Lux Cell Active Relay comes ON for 1 Min. After 1 min. ready for detection.
Lux Cell Inactive Relay ON	Lux Cell Inactive Relay stays ON for 1 Min. After 1 min. ready for detection.

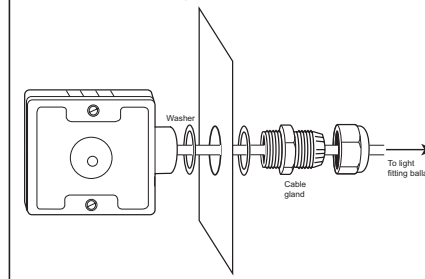
## A: Wiring diagram



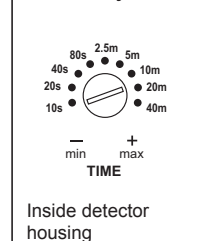
## C: Lux adjustment



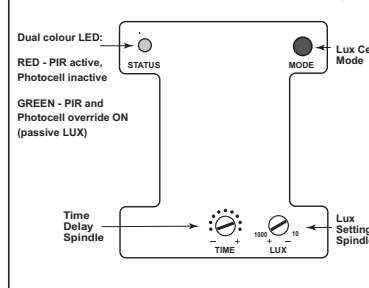
## B: Installation diagram, viewed from below



## D: Time adjustment



## E: Time/Lux adjusters (inside casing)



## F: Detection range

