Test mode

To check the load and switch are working correctly the BMINTPH should be put into 'Test Mode'.

1. Press 'Calibrate and Test Mode button quickly (see diagram E).
2. The load should go OFF or stay OFF (LED turns RED).
3. After 4 seconds the load comes ON (LED turns GREEN).
4. After 4 more seconds the load goes OFF (LED turns OFF).
5. After 4 more seconds the control goes back into standard operation.

Trouble shooting

As the lux potentiometer is moved anticlockwise it may be that the LED goes from fixed green to fixed red before it goes off.In this case the current LUX control point (pot setting) in addition to the artificial LUX is either in range (GREEN) or out of range (RED). When moving the pot anticlockwise, If the LED goes RED before it goes out then the LUX switch needs to be repositioned (so that it is NOT seeing as much artificial light) and then recalibrated.

If the LED on BMINTPH fails (after calibration) to illuminate either RED or Green and the load switches on, the current lux is lower than the minimum 30 Lux (at the cell) and cannot be inhibited off. Solution : site the LUX switch in a position that sees more natural light.

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.

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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DANLERS Installation notes

Batten Mount 'Intelligent' Photocell Switch

BMINTPH *This product has a GB patent pending No: 1219746.3.*

DANLERS Batten Mount 'Intelligent' Photocell switch can be mounted onto the end of lighting battens via the 20mm knock out. The switch includes the connection 20mm thread and 1m of wire tails to connect to the lighting ballast.

This product will, when set up and calibrated, inhibit the artificial lights from switching on if the measured lux (on the working plane) is greater than the user set threshold. If the artificial lights are ON and the LUX then rises greater than the set threshold (plus the "stored calibrated hysteresis" – saved during calibration) the product will then switch the artificial lights off after the time delay set by the adjustable time spindle (1min - 60min). After a fixed time of 1 minute delay the product brings the artificial lights on should it get dark.

Calibration

Calibration is recommended to take place when ambient light levels are low (preferably at night or with daylight excluded as far as possible, from the calibration measurement). Set up of the switching level on the lux switch should take place when the lux on the working plane is "as required by the end user" from natural daylight.

The calibration process measures the addition of LUX from the controlled artificial light source. This eliminates the possibility of cycling, where the artificial lights switch on, then off after the under/over lux time windows have elapsed.

The calibration process removes the site specific addition of artificial light from any decision to switch the lights on/off."

Loading

The BMINTPH should only be connected to a 230V 50Hz ac supply.
They can switch the following type of loads:

- 10 amps (2500W) resistive loads and tungsten
- 6 amps (1500W) fluorescent (switch start) / mains halogen lamps (recommended with integral safety fuse)
- 3 amps (750W) Electronic or wire wound transformers. Compact fluorescent or LED lamps.

Normally OPEN contacts.

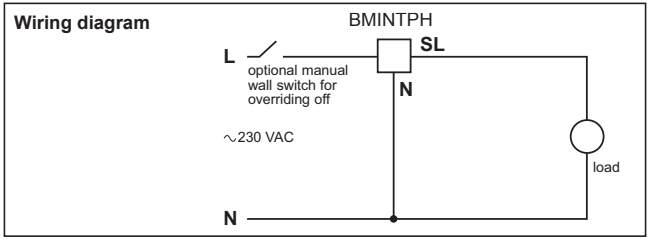
Installation procedure

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. Remove the 20mm knockout from the end of the lighting batten Making reference to diagram A: Remove the 20mm thread from the PIR and insert it through the 20mm knockout hole with the thread facing outwards
4. Feed the trailing wires through the thread and with the PIR facing downwards tighten the 20mm thread.
5. The trailing wires should be connected to the ballast as:
   Brown - Live supply. Blue - Neutral supply. White - Switched Line to ballast.
6. Once the wiring has been completed and verified, switch on the supply and test the operation.

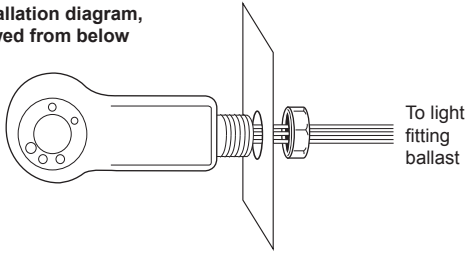
Calibration procedure

1. Rotate the LUX pot fully clockwise.
2. Rotate the TIME delay pot fully anticlockwise.
3. Press and hold the calibrate push button for 4 seconds. The LED flashes RED. Calibration mode is initiated, where it measures the addition of LUX from the controlled artificial light source.
4. Ensure the area is un-occupied when calibration is taking place. Make sure the product is sited such that the lux cell can see only the reflected light of the source it is controlling! i.e. NOT any other switched/ varying artificial light source.
5. If the product is moved from its original calibration site, it will need to be re-calibrated.
6. After approximately 16 minutes has elapsed, the LED will stop flashing RED and should go fixed green OR fixed red. (Unless the current lux level is below the lowest inhibit threshold of 30 LUX, in which case the controlled lights will be switched on. In this scenario, the unit needs to be sited in more natural light).
7. After Calibration - If the led is fixed green, the current LUX control point (pot setting) in addition to the artificial LUX (measured in calibration) is “in range” of the product (1000 LUX maximum on the cell / 3000 Lux on the working plane assuming a 1/3 reflectance) and can be controlled without lamp cycling.
8. After Calibration - If the led is fixed RED, the current LUX control point (pot setting) in addition to the artificial LUX (measured in calibration) is nearing the range limit / is OUT of range of the product, (1000 LUX maximum on the cell / 3000 Lux on the working plane assuming a 1/3 reflectance) and MAY NOT / NOT be controlled and the lights MAY / WILL cycle. See ‘Troubleshooting’ for remedy.
9. After Calibration: When the lux on the working plane is “as required” from natural daylight, assuming the LED is fixed green, move the pot anticlockwise until the LED goes off. This needs to be done in small increments by adjusting the pot and moving well out the way of the LUX cell. Ensure the LED is still off when full natural daylight is seen by the cell at that particular time i.e. not shaded by the commissioning “body”.
10. The calibration process is now complete.

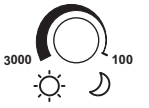
Wiring diagram



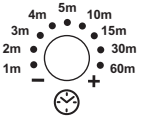
A: Installation diagram, viewed from below



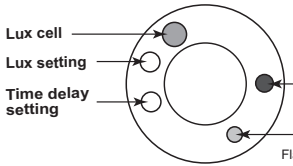
C: Lux adjustment



D: Time adjustment



E: Photocell head - key components



Normal operation after calibration and set up

LED GREEN - *Current Lux ABOVE user threshold (Within control limits)*
LED NOT ILLUMINATED - *Current Lux BELOW user threshold (Load ON)*
LED RED - *Current Lux ABOVE user threshold (Outside control limits)*