MK Sensors

Instruction Manual
Read this entire manual before you start to install the system.

The 360° Surface Mount Motion Sensor uses a passive infrared sensor which reacts to changes in temperature emitted by the motion of persons or objects passing through its detecting area. When you enter the room, it turns on automatically the light to which it is connected and the light remains lit as long as the sensor detects any activity in the room. It however will automatically turn off the light after the preset turn-off time is expired. During the day, the built-in photocell sensor saves electricity by deactivating the light.
Safety Precautions

- Be sure to switch off power source before installing.

- Make sure that the power wiring comes from circuit with an external 16A miniature circuit breaker for the short circuit protection or a suitable fuse.

- The unit cannot be installed on the wall. (Figure 1).

- The installation of this device should be made by a qualified electrician.

Choosing a Mounting Location

- Avoid aiming the motion sensor at heating vents, air conditioners or objects, which may change temperature rapidly.

- Do not install in bathrooms / shower rooms.

- Prior to mounting the light fixture, remember to position the motion sensor so that a moving object cuts “across”
its beams, not directly “towards them.” (Figure 2).

The unit has a sensing angle of 360° and can detect up to 5 meters radius at the mounting height of 2.2 meters or 7 meters radius at the mounting height of 5 meters. (Figure 3).

**Installation**

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Wiring Instructions

1. Switch off the power source or isolation switch.

2. Strip approximately 6-8mm insulating part of the wires from the terminal block.

   **Note:** It is recommended that round cable of 1.5mm² gauge is used.

3. The connection of all power cords is at your disposal. The power cord of “LS” and
“N” mark is to be connected to any light fixture you have. (Figures 4a and 4b).

4. The sensor can be installed to a ceiling mounting box or directly to the ceiling - make a small hole in the ceiling for the cable to pass through and fix the sensor in position with the screws and plugs supplied. (Figure 5).

Test Mode:

- Turn the Lux control and the Time control counterclockwise to the edge-the TEST position. (Figure 6).

- Turn the isolation switch on, the light will turn on immediately and then needs to warm-up for about 1 minute before it turns off.

- Walk through the coverage area. The light will turn on for about 5 seconds when motion is detected and turn

Note: The unused earth wire must be insulated.
off shortly after motion stops. Wait for the light to turn off before moving again to test the sensor.

Setting the Lighting System

1. Time Adjustment:
   The TIME adjustment controls how long the light will stay on after motion has been detected.

   Adjust the TIME Control Knob clockwise to increase the turn-off time (40 minutes maximum) or counter-clockwise to decrease the turn-off time (5 seconds minimum). (Figure 7).

2. LUX Adjustment:
   The LUX adjustment determines at what light level the lighting system will start operating.
   Provisionally turn the LUX Control Knob to the edge clockwise at the moon (dusk) position. (Figure 8).

   Note: T means that the light will always switch on regardless of light levels in the area.
Wait until the ambient light level reaches the level of darkness at which you wish to turn the lights on. Slowly rotate the knob anticlockwise until the light turns on.

At this position the unit should become operative at approximately the same level of darkness each evening. Observe the operation.

If the unit starts to operate too early, adjust the knob slightly clockwise. If the unit operates too late (i.e. dusk), adjust the control knob slightly anti-clockwise. Vacate the area for the time setting that was set to allow the PIR to adjust to the new light setting.

The light turns on for the time set when you move in the area and turns off when you vacate the area. Wait for the light to turn off before moving again to test the sensor.

**Operation**

When the sensor detects motion, the light automatically turns on. The built-in photocell turns the sensor off and on according to the light level selected by the LUX adjustment.
## Trouble Shooting

**Light does not turn on**

1. Confirm that you have made a correct “wiring connection”.

2. Make sure that the bulbs have not burned out.

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**Light remains on**

1. Make sure the wiring connection is correct.

2. Check if the TIME setting is correct.

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## Disposal and Recycling

At the end of their useful life the packaging and product should be disposed of via a suitable Recycling Centre.

Do not dispose of with your normal household waste. DO NOT BURN.
## Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Power requirement</td>
<td>AC 220 ~ 240V / 50Hz</td>
</tr>
<tr>
<td>Lighting load (Max)</td>
<td>6A Max or 1500W fluorescent/incandescent lighting load capability</td>
</tr>
<tr>
<td>Detection angle</td>
<td>Up to 360° at 25°C at 5m</td>
</tr>
<tr>
<td>Detection range</td>
<td>Up to 5m radius at 25°C at 2.2m height Up to 7m radius at 25°C at 5m height</td>
</tr>
<tr>
<td>Mounting height</td>
<td>Recommended ceiling height 2.2m or 5m</td>
</tr>
<tr>
<td>Mounting type</td>
<td>Screw mount</td>
</tr>
<tr>
<td>Isolation switch control</td>
<td>AUTO/OFF</td>
</tr>
<tr>
<td>Time adjustment</td>
<td>Adjustable 5 seconds ~ 40 minutes</td>
</tr>
<tr>
<td>Lux adjustment</td>
<td>Approx. 30 ~ 200 Lux</td>
</tr>
<tr>
<td>Warm up time</td>
<td>About 1 minute</td>
</tr>
<tr>
<td>Protection degree</td>
<td>IP20</td>
</tr>
<tr>
<td>Safety</td>
<td>CE</td>
</tr>
<tr>
<td>Product Dimensions</td>
<td>![Dimension Diagram]</td>
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Guarantee

Novar ED&S undertakes to replace or repair at its discretion goods (excluding non rechargeable batteries) should they become defective within 2 years solely as a result of faulty materials or workmanship. Understandably if the product has not been installed, operated or maintained in accordance with the instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

The guarantee states Novar ED&S Ltd’s entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not in any way affect the statutory or other rights of the consumer.

If an item develops a fault, the product must be returned to the point of sale with proof of purchase, a full description of the fault and all relevant batteries (disconnected).

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