

PIR SENSOR

Users' Manual

MODEL: HC – 7 E

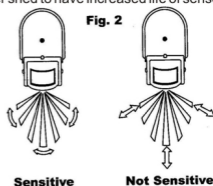
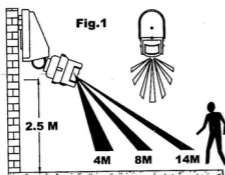
Brief Introduction

HC – 7E sensor switch can detect the Infrared Rays released by human body motion within the detection area, and start the load – light automatically. This unit is suitable for outdoor use (corridor, staircase, courtyard, etc.). Please read this manual carefully before installation, and retain it for future use.

Positioning the Unit

Please take the following factors into consideration when selecting installation position for HC – 7E sensor switch:

1. To get optimum performance, the unit is suggested to be installed 1.8 to 2.5 meters high (above the ground to be detected). (see fig.1)
2. Not mounting at the surface of vibrational object.
3. Avoid positioning the unit close to trees and bushes which may cause false triggering when raining or blowing.
4. Avoid positioning close to heat sources as air – conditioners, flues and strong electromagnetic disturbance areas which may also cause false triggering.
5. Avoid pointing at bright objects, otherwise, PIR sensor will not function when setting LUX control level at dark position (☺).
6. Not aiming the PIR sensor towards the sun and reflexible surfaces as smooth white walls, swimming pools.
7. The detection range varies slightly when installation position and place changed. Also the detector is more sensitive to motion across the front of the sensor than to motion towards or away from the sensor (see Fig.2).
8. For outdoor application it is recommended to use sensor under shed to have increased life of sensor.

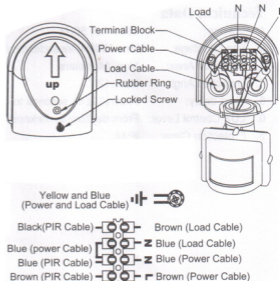


Installation

Before installation, making sure all power supply cables are isolated by switching off and/or removing the relevant fuse.

1. The unit should be installed by qualified electrician according to IEC wiring regulation.
2. Unscrewing (not missing the rubber ring), separate the bottom of sensor holder and remove the terminal block.
3. Drill holes accordingly on the mounting surface, and fit the bottom of sensor holder to the mounting surface with supplied screws and plastic washers (note the installation direction).
4. Connect power cable and load cable to the corresponding position on the terminal block through the rubber ring (wiring regulations: rigid cable 0.75 – 1.50mm²).
5. Fix the terminal block to the bottom, and refit the face – cover on the bottom of the sensor holder with supplied screws.

After installation, you are suggested to adjust HC – 7E sensor switch to your desired detection range and work state.



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Control Setting

1. Switch on the power to warm up PIR sensor, if setting TIME control at position (-) and not receiving any effective signal, the load – light will turn off automatically in 30 seconds (generally within 60seconds), the sensor will enter into automatic detection state.
2. Adjust the sensor towards the area to be scanned: finding another person to go across the front of the sensor, you may confirm the detection range by the maximum area where motion can be detected anyway.
3. Set your desired Time – delay by revolving the TIME knob to a proper position.
4. LUX control level: when setting LUX knob to position (☺), load – light will be turned on only at night (darkness), if you want load – light to be triggered earlier (e.g. dusk), adjust the LUX knob slowly from position (☺) to position (☼), once load – light be turned on, stop adjusting immediately.

Adjustment

1. Adjust the Time – delay: the length of time that load – light remains switched on after activation can be adjusted from (10±5) seconds to (4±1) minutes. Position (-) indicates the minimum length.
Note: Once the load – light has been started by PIR sensor, any subsequent detection will start the Time – count again from the beginning.
2. Adjust the LUX control level: there is a built – in photo – cell (CDS) inside the PIR sensor; it detects the change of ambient luminosity. The ambient luminosity in which PIR sensor may start load – light can be adjusted continuously from daytime to darkness by revolving LUX knob.

Sign (☼) indicates that load – light will be switched on during daytime and night (darkness)

Sign (☺) indicates that load – light will be turned on only at night (darkness).

Adjust this knob according to your needed ambient luminosity.

Warning

1. Not suitable for use with dimmer switch.
2. Never damage the lens of the sensor.
3. Do not try to modify the unit, there is no user serviceable components inside.
4. In order to ensure PIR sensor function effectively, it is suggested to clean dust from the lens with wet soft cloth every three – month.

Technical Data

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|----------------------|---|---|
| 1. Voltage | : | 230VAC, 50Hz |
| 2. Load Wattage | : | Max. 1000W Incandescent Bulb, max. 300W Fluorescent Lamp. |
| 3. Detection Area | : | Max. 14 meters. |
| 4. Detection Angle | : | Max. 120° |
| 5. Time – delay | : | From (10±5) seconds to (4±1) minutes adjustable. |
| 6. LUX Control Level | : | From daytime to darkness adjustable. |
| 7. Protection Class | : | IP44. |