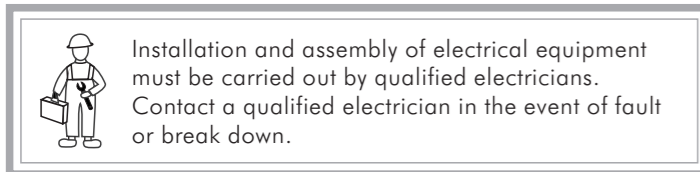




INSTRUCTION MANUAL

TECHNICAL SPECIFICATIONS

Rated Voltage	12-24VAC or 11-32VDC
Load	Voltage free contact Max. 5A for ≤250VAC (cos φ=1) Max. 5A for ≤30VAC
Detection Angle	180°
Detection Range	Adjustable up to about 12m frontal and 6m each sideward
Auto Off Time Adjustment	Adjustable from “-” (approx. 6sec) to “+” (approx. 12min)
Lux Adjustment	Adjustable from “Ⓞ” (approx. 10Lux) to “*Ⓞ” (∞)
Meter Adjustment	Adjustable from “-” (approx. 2m) to “+” (approx. 12m) at height of 2m
Standby Power Consumption	Approx. 0.2mA
Operating Temperature	-20°C to +50°C
Environmental Protection	IP44



CAUTION!

- Do not mount on conductive surface.
- Do not open the enclosure frequently.
- Turn off power when change the light sources.
- High in-rush current would be caused when bulbs of certain brands burned which might damage the unit permanently.

1 PACKAGE CONTENTS

Pattern					
Item	Detector	Junction box	Wood screw Φ4 x 25.4mm	Screw Φ3x 12mm	Screw Φ2.6x 4mm
Quantity	1	1	2	2	1

Pattern					
Item	Manual	Plastic washer Φ28x1mm	Metal ring	Rubber gasket	Terminal block
Quantity	1	1	1	1	1

2 PRODUCT DESCRIPTION

2.1 Features

It is a wall and ceiling mountable waterproof Passive Infrared Motion Detector, ideally to be installed in humid environment to automatically switch on the connected load when an occupant enters its monitored space and switch off them when the space becomes vacant to provide user with the connected load automation control convenience and energy saving benefits. The user friendly Lux, Time and Meter adjusting functions are designed for user to set the control conditions of motion detector according to their requirements conveniently.

- Unique construction design for enabling wall mount and ceiling mount both applicable.
- Detector head can be adjusted for detecting angle adjustment.
- A built-in photocell allows automatically switching on/off the light as per the preset Lux value.
- Delay off time and detecting range are adjustable for meeting different requirements on application.
- Low standby power consumption for energy savings.
- Large terminal block for adopting 2x2.5mm² cables for easy wiring connection.
- IP44 protection level.
- Voltage free contact design for free connection to various kinds of load.

2.2 Dimension (See FIG.1-A & FIG.1-B)

- Wall mount: 114 x 60 x 96mm

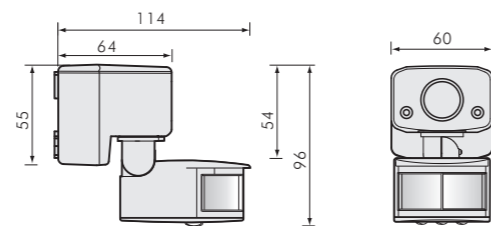


FIG.1-A

- Ceiling mount: 103 x 60 x 122mm

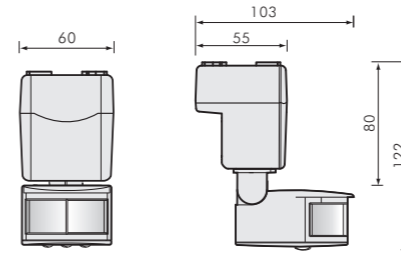


FIG.1-B

3 INSTALLATION AND WIRING

Please disconnect power completely and read the entire instruction manual carefully before installation.

3.1 Select a proper location

3.1.1 It can be installed at the height of 2 - 4m, it's recommended to install it at the height of 2m to gain the optimal detection pattern, the detection range can reach up to 12m at the height of 2m (See FIG.2).

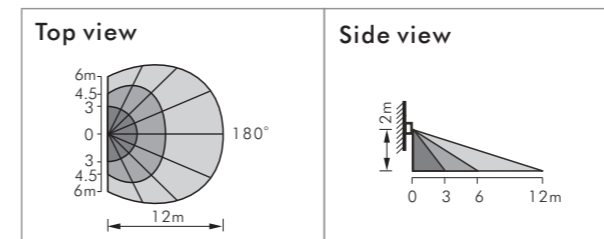


FIG.2

3.1.2 Helpful tips for installation

- 3.1.2.1 The optimal location for installation are: garden, corridor, staircase, entrance, garage, public lavatory, outdoor parking area, home and office, etc.
- 3.1.2.2 Since the detector responds to temperature change, please avoid the following conditions:
- Avoid pointing the detector towards the objects whose surfaces are highly reflective, such as mirror, swimming pool, etc.
 - Avoid mounting the detector near heat sources, such as heating conditioners, lights, etc.
 - Avoid aiming the detector towards the objects which may be swayed in the wind, such as curtain, tall plants, etc.

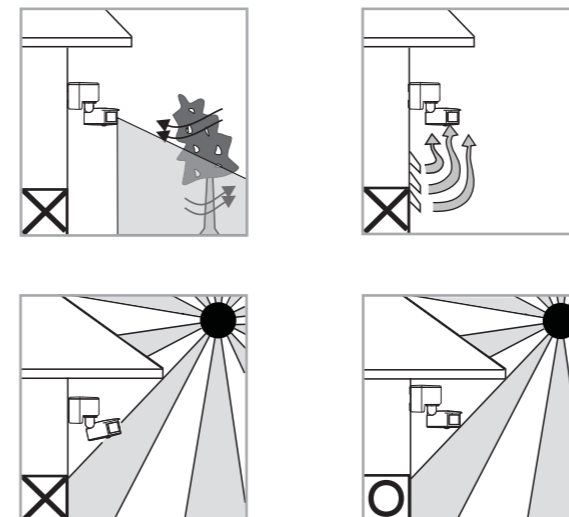


FIG.3

3.1.2.3 Pay attention to the walking direction in the test proceeding (See FIG.4).

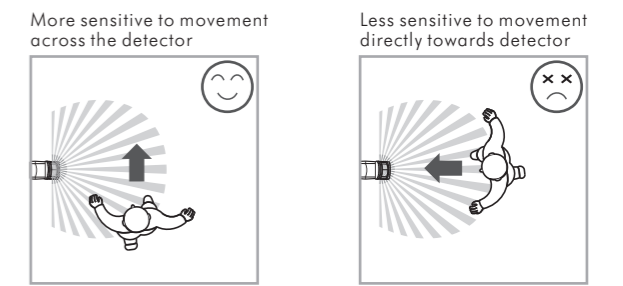


FIG.4

3.2 Function

3.2.1 Auto mode

e7.1 Motion Detector can automatically turn the load on or off according to what the values of Lux and Time are set. The load will turn on when ambient light level is lower than Lux setting and the motion detector is activated as the moving object is in detection coverage, and the load will turn off automatically when pre-set time is reached. Conversely, when ambient light level is higher than Lux setting value, the detector can not be activated and the load will not turn on even there is moving object in the detection coverage.

3.3 Wiring diagrams

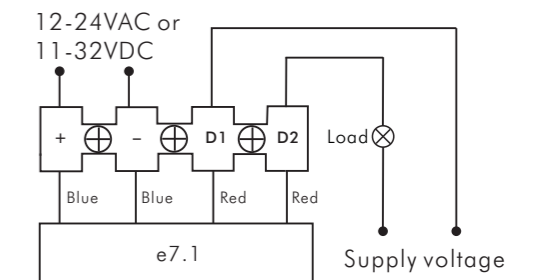


FIG.5

3.4 Installation procedure

- e7.1 can be mounted either on the wall or on the ceiling.
- 3.4.1 Fasten the box base rigidly to the selected mounting surface (Wall or Ceiling) with the cable entry hole facing downward (See FIG.6).
- 3.4.2 Select a knock out hole on a connection box base, insert the load and power cable through rubber gasket and the knock out hole, then use screws to fix the cable firmly with cable clamp (See FIG.7).
- 3.4.3 Connect the wires refer to wiring diagram (See FIG.5).
- 3.4.4 Insert terminal block by hand.
- 3.4.5 Re-check the wires connection and make sure it is correct.
- 3.4.6 Assemble base with sensor cover, then fix with 2 screws (See FIG.8).

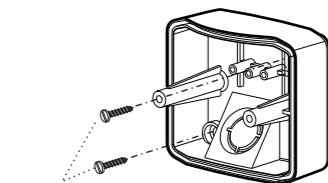


FIG.6

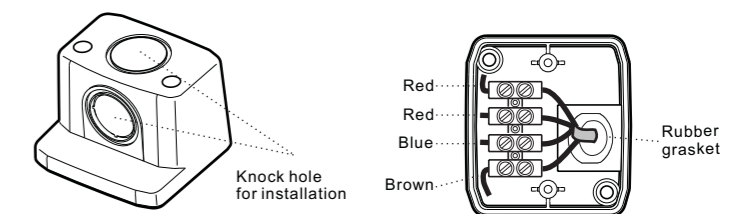


FIG.7

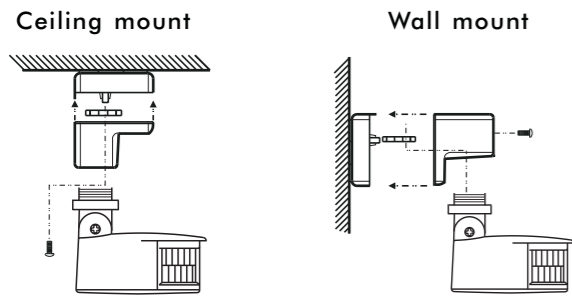


FIG. 8

3.4.7 Detector head adjustment:

Ceiling mount: Detector head can be adjusted downward to max. 60° or turned leftward and rightward max. 90° horizontally (See FIG. 9-A) to shorten the detection range. Wall mount: Detector head can be adjusted downward to max. 45° or turned leftward max. 45° and rightward max. 90° horizontally (See FIG. 9-B) to shorten the detection range. Please adjust detector head to get the desired detection field.

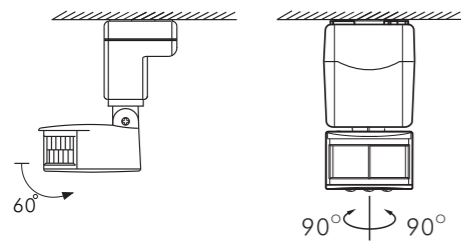


FIG. 9-A

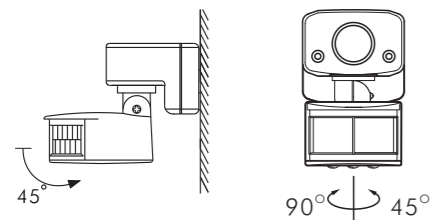





FIG. 9-B

4 OPERATION AND FUNCTION

4.1 Meter, Lux, Time knob

Knob	Function	Knob setting
 METER	Set the detection range	Range: Adjustable from "—" (approx. 2m) to "+" (approx. 12m)
 LUX	Set the ambient light value for switching on load	Range: Adjustable from "∅" (approx. 10Lux) to "∞" (∞)
 TIME	Set delay off time for load	Range: Adjustable from "—" (approx. 6sec) to "+" (approx. 12min)

4.2 Walk test

NOTE

It takes approx. 30sec for detector to warm up after power is supplied, then detector enters into normal operation mode to conduct a walk test.

The purpose of walk test is to select a proper installation place and gain the desired detection coverage under auto mode. Please turn Time knob to "—", Lux knob to "∞" and Meter knob to "+", then refer to the following steps conducting a walk test (See FIG. 10).

e7.1 needs to warm up for about 30 seconds after power on. In the test, the light will turn on for about 6 seconds when the sensor is activated once the moving object is in the detection area, then turn off automatically.

Please stop walking as soon as the light turns on. If the moving object keeps walking in the detection area, the timer will reset and re-count for another 6 seconds.

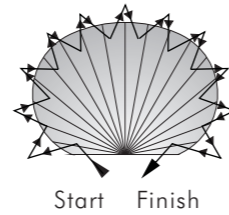


FIG. 10

● Walk test procedure

- 4.2.1 Aim the detector toward the desired detection pattern.
- 4.2.2 Switch on the power.
- 4.2.3 e7.1 takes approx. 30sec to warm up.
- 4.2.4 Walk from outside across to the detection pattern until load turn on (See FIG. 10).
- 4.2.5 Adjust detector head aiming to the direction to be detected (See FIG. 9-A & FIG. 9-B).
- 4.2.6 Adjust Meter knob to reach desired coverage.
- 4.2.7 Repeat the steps 4.2.4 to 4.2.6 until it meets user's demands.

NOTE

- Do not attempt to open or repair the unit without qualified electrician while it is malfunctioned.
- The following conditions may cause lower sensitivity:
 - In very foggy days, the sensitivity may be less due to moisture collecting on the lens.
 - In very hot days, the sensitivity may be less since high ambient temperature is close to body temperature.
 - In very cold days when heavy clothing is dressed, especially the facial area is covered, very little heat will be emitted from the body causing the unit to be less sensitivity.
 - Cleaning: Wipe with dry cloth only. Soap or rough cloth may damage the detector lens.

5 TROUBLE SHOOTING

When e7.1 works abnormally, check assumptive problems and suggested solutions in following table that will hopefully solve your problem.

Problem	Possible cause	Suggested Solution
Load does not turn on	<ol style="list-style-type: none"> 1. Power does not turn on. 2. Incorrect wiring. 3. Incorrect Lux knob adjustment. 4. Malfunctioned load. 	<ol style="list-style-type: none"> 1. Switch on the power. 2. Refer to wiring diagrams and connect wiring correspondingly. 3. Check if Lux knob is set to the correct position. 4. Replace the disabled load with a new one.
Load does not turn off	<ol style="list-style-type: none"> 1. Auto off time is set too long. 2. Detector is nuisance triggered. 3. Incorrect wiring. 	<ol style="list-style-type: none"> 1. Set auto off time to a shorter time and check if the load is switched off or not according to the pre-set off time. 2. Keep be away from detection coverage to avoid activating detector while doing the test. 3. Refer to wiring diagrams and connect wiring correspondingly.
Nuisance triggered	There are heat sources, highly reflective objects or any objects which may be swayed in the wind within the detection coverage.	Avoid aiming the detector towards any heat sources, such as air conditionings, electric fans, heaters or any highly reflective surfaces. Make sure there are no swaying objects within the detection coverage.