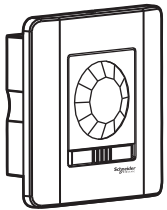


ZENcelo



TECHNICAL SPECIFICATION	
Rated Voltage	230V~ 50Hz
Load	E84731MS2B_WE: Incandescent Lamp: 40-400W AC Halogen Lamp : 40-400W LV Halogen Lamp : 40-300VA (Electronics) E84751MS3B_WE: Max. 10A (cosφ=1) Incandescent Lamp: max. 2000W AC Halogen Lamp : max. 1000W LV Halogen Lamp : max. 1000VA (Electronics & traditional) Fluorescent Lamp : max. 900VA / 100μF (Compensated) Energy saving lamp (include CFL and PL lamp): max. 600VA
Detection Angle	Up to 110°
Detection Range	About 9m for frontward, 8m each for sideward at the height of 1.2m (20-25℃)
Mounting Height	0.8m-1.5m, and 1.2m is the optimal mounting height
Lux Adjustment	Adjustable from “☾” (about 5Lux) to “☼”(∞).
Auto Off Timer Adjustment	E84731MS2B_WE: Adjustable from 6sec to 20min, and “test” E84751MS3B_WE: Adjustable from 6sec to 20min, and “test” & “√s┘”.
Meter	Adjustable for detection zones.
Manual Switch (3 modes)	Manual on 2hrs / AUTO / off
Environmental Protection	IP40
Operating Temperature	0 °C to +45 °C (see NOTE 3)



All procedures indicated in this manual must be carried out by a professional installer.

CAUTION

- Turn off power before installing the unit.
- Bulb burn of certain brands would cause high in-rush current which might damage the unit permanently.
- Turn off power when changing the light sources.
- Circuit breakers are recommended to be installed upfront for safety precaution.

1 PACKAGE CONTENTS

Pattern				
Item	Sensor	Screws M3.5 x25mm	Screws M4 x25mm	Manual
Quantity	1	2	2	1

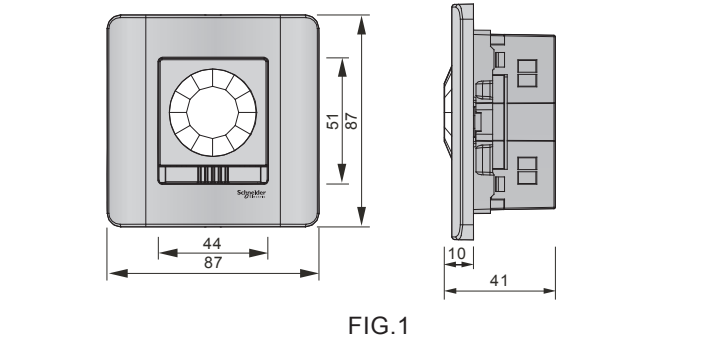
2 PRODUCT DESCRIPTION

E84731MS2B_WE / E84751MS3B_WE is a wall mounted 110° PIR motion sensor. It is ideally located in small stores or factories, offices, homes, in areas such as corridors, staircase, dining rooms, cellars, drawing rooms, bedrooms, garages, etc.

2.1 Features

- Suitable for normal BS standard wall box for easy installation and operation.
- Built-in red LED as an indicator for different modes of function.
- Screw-in terminal block for easy & safe wire connection.
- Replace two-way switch of staircase by E84731MS2B_WE / E84751MS3B_WE to make the operation fully automatic.
- Energy saving: Built-in photocell allows automatic operation at night and in daylight.

2.2 Dimension: 87 x 87 x 41mm (See FIG.1)



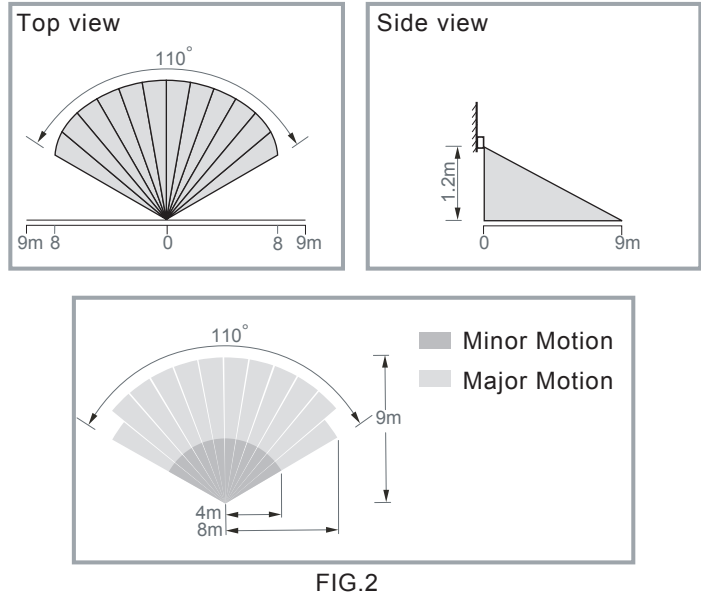
3 INSTALLATION AND WIRING

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

3.1 Select a proper location

3.1.1 Detection coverage

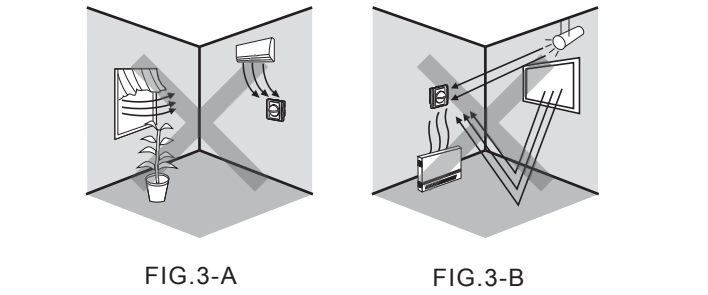
It is recommended to install the sensor at the height of 0.8m - 1.5m. At the height of 1.2m, the detection range is up to 9m frontward and 8m sideward (see FIG.2).



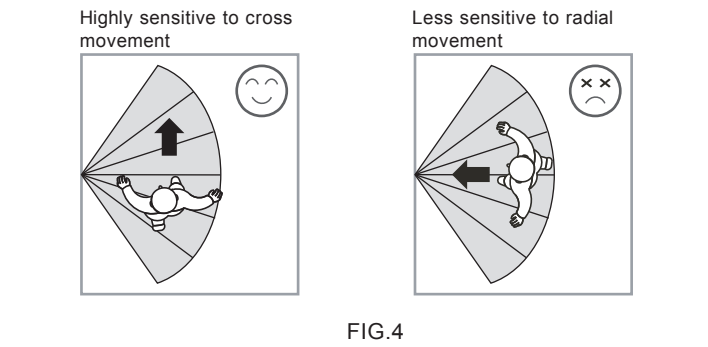
3.1.2 Helpful tips for installation

Since the sensor is respondant to temperature change, please avoid the following conditions (See FIG.3-A & FIG.3-B):

- Directing the sensor toward the objects whose surfaces are highly reflective, such as mirrors, monitors, etc.
- Mounting the sensor near heat sources, such as heating vents, air conditioners, vents as dryers, lights, etc.
- Aiming the sensor toward the objects which may be swayed in the wind, such as curtains, tall plants, miniature garden, etc.



3.1.3 Pay attention to the walking direction during the test (See FIG.4).



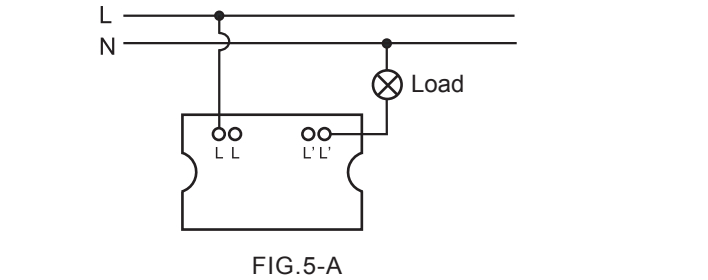
3.2 Wiring diagrams

- Cable specification: 0.5mm² - 2.5mm² (20 - 14AWG).

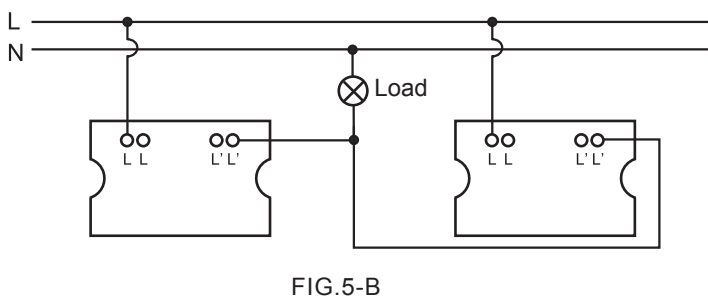
NOTE 1
DO NOT connect dimmer or electronic switch to load in series.

3.2.1 E84731MS2B_WE

3.2.1.1 Normal operation (See FIG.5-A)

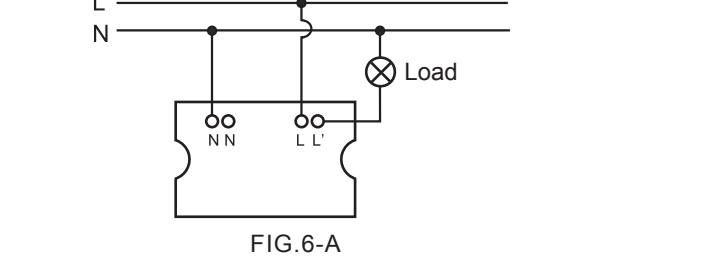


3.2.1.2 Two sensors control one load (See FIG.5-B)

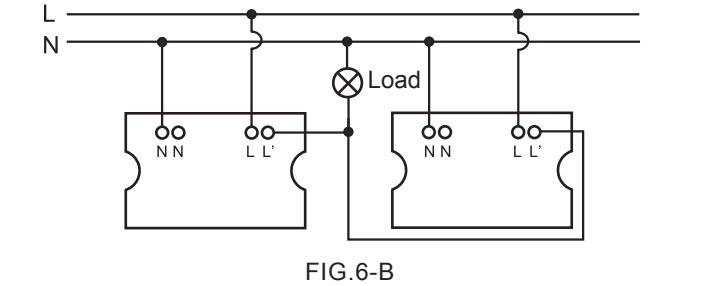


3.2.2 E84751MS3B_WE

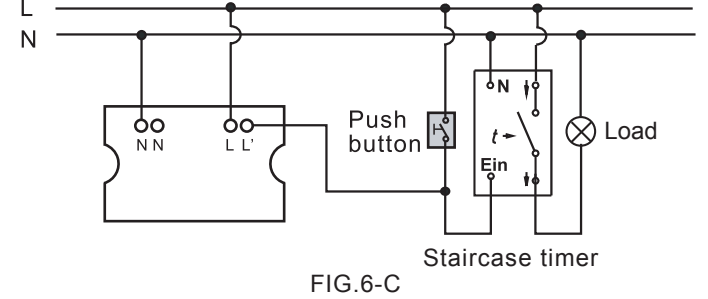
3.2.2.1 Normal operation (See FIG.6-A)



3.2.2.2 Two sensors control one load (See FIG.6-B)



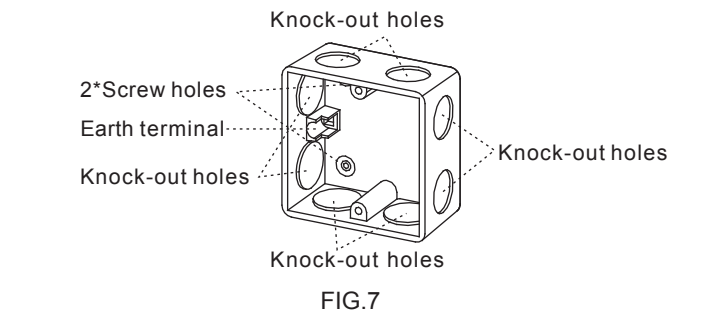
3.2.2.3 One sensor controls staircase timer (Set time knob to √s┘, See FIG.6-C)



3.3 Installation procedure

E84731MS2B_WE / E84751MS3B_WE can be fixed on the wall with an Asian standard junction box, please refer to the following steps.

3.3.1 8 knock-outs of the Asian standard junction box are designed for various applications (See FIG.7). Break the knock-out and feed wires going through the corresponding hole.



3.3.2 Fix the Asian standard junction box on the wall with two M4 x 25mm wood screws. Refer to FIG.9 for position of screw holes.

3.3.3 Unscrew the terminal and refer to the wiring diagram (See FIG.5 - FIG.6) to insert the power cables into the corresponding terminal pin jack. Please strip off 6 - 8mm of cables sheathing by tool (See FIG.8).

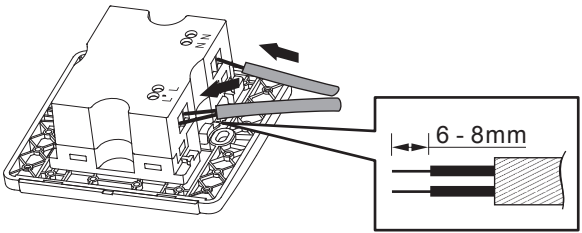


FIG.8

3.3.4 Screw the terminal and make sure the wires are securely fixed.

3.3.5 Dismantle the frame (See FIG.13) and put the sensor with wired power box into the Asian junction box, then fix the sensor on it with two M3.5 x 25mm mechanical screws (See FIG.10).

3.3.6 Cover the frame back firmly (See FIG.11 & FIG.12).

3.3.7 Supply power and refer to point “4.3 Walk test” to conduct function test and check if the sensor works normally.

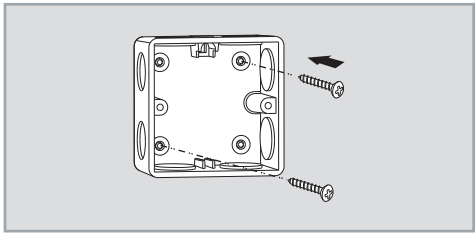


FIG.9

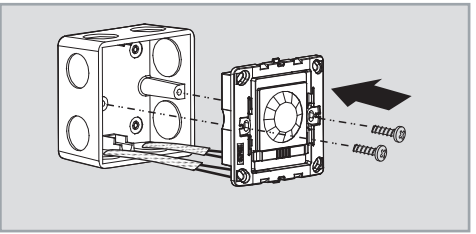


FIG.10

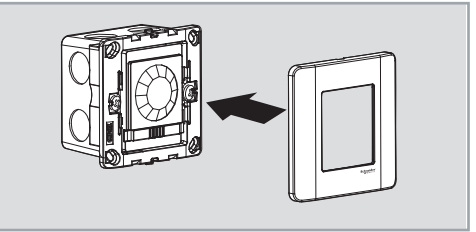


FIG.11

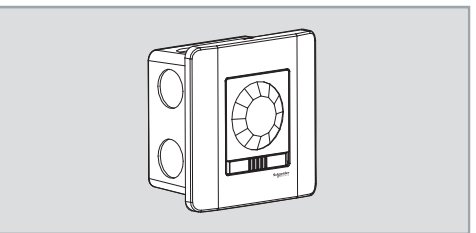


FIG.12

4 OPERATION

4.1 Open up the knob cover

4.1.1 Use a screwdriver as shown in FIG.13 to take off the decorative frame slightly.

4.1.2 Take off the knob cover slightly (See FIG.14).

4.1.3 Adjust the knob's values as desired.

4.1.4 Put back the knob cover and then the decorative frame.

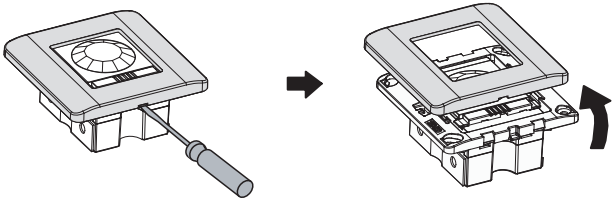


FIG.13

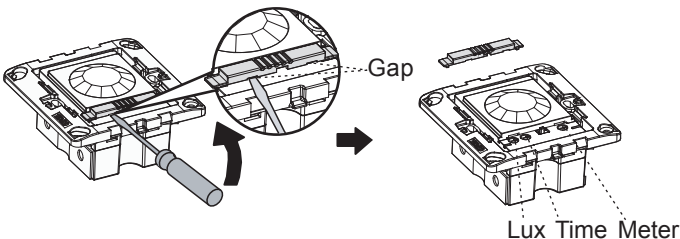


FIG.14

4.2 Knob setting

Lux, Time, Meter knob (See FIG.15-A& FIG.15-B). To adjust Time, Lux, Meter knobs refer to the following steps and make sure the slide switch is at the position “AUTO”.

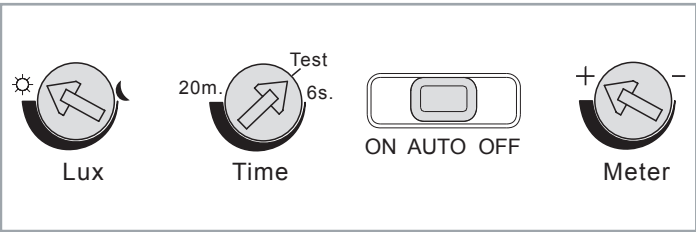


FIG.15-A (For E84731MS2B_WE)

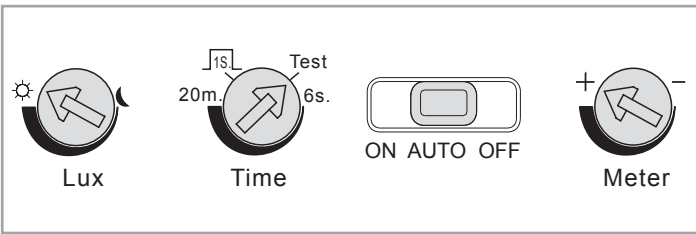


FIG.15-B (For E84751MS3B_WE)

4.2.1 Lux knob setting

- Setting Lux knob value at the position “☾”, means sensor can work in the dark only.
- Setting Lux knob value at the position “☼”, means sensor can work at any light level.
- Adjusting the Lux knob according to your desire.

4.2.2 Time knob setting

Time: Adjustable from 6sec to 20min. Set the Time knob between 6sec and 20min, LED will turn on for 1sec once the sensor is triggered.

Test : Walk test operation. Set the Time knob at “test”, once the sensor is triggered, both of load and LED will turn on for 2sec, then turn off, the next trigger should be 2sec interval. Lux setting value is disabled.

⌋is⌋ : Short impulse for staircase timer switch control (1sec on, 9sec off). Set the Time knob to “⌋is⌋”, once the sensor is triggered, both of load and LED will turn on for 1sec, then turn off, the next trigger should be 9sec interval.

4.2.3 Meter knob setting

- Setting Meter knob value at the position “-”, means the “smallest field of view” will be performed.
- Setting Meter knob value at the position “+”, means the “largest field of view” will be performed.
- Adjusting the Meter knob according to your desire in between the position “-” and “+”.

4.3 Walk test

NOTE 2

It takes 30sec for sensor to warm up with LED and load turn on, then enters into standby mode.

The purpose of conducting a walk test is to select a proper location to get the best detection range. Set the slide switch at the position “AUTO”, turn Meter knob to “+”, Time knob to “test”, then conduct a walk test referring to step 4.3.1 to 4.3.6. Use the red LED behind the lens for indication (See FIG.16). Lux setting value is disabled (See FIG.17).

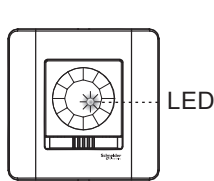


FIG.16

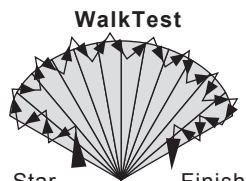


FIG.17

4.3.1 Install the sensor correctly, refer to FIG.5 - FIG.6 to make sure wiring is connected correctly.

4.3.2 Switch on the power.

4.3.3 Walk from outside across to the detection pattern, once the sensor is triggered, LED and load will all turn on for 2sec.

4.3.4 Adjust Meter knob to targeted coverage.

4.3.5 Repeat the step 4.3.3 and 4.3.4 until it meets your needs.

4.3.6 Pay attention to the walking direction while proceeding the test (See FIG.4).

4.4 Manual switch function (See FIG.15-A & FIG.15-B & FIG.18)

AUTO:Set slide switch at the middle position (AUTO), sensor is in auto operation mode. If time knob is set between 6sec and 20min, LED will turn on for 1sec once the sensor is triggered.

ON :Set the slide switch leftward, “ON” mode is activated, load will be permanent on 2hrs, LED flashes slowly, then sensor returns to auto mode automatically. Even if slide switch is set to “ON”, sensor enters into auto mode once the power is re-supplied.

OFF :Set the slide switch rightward, “OFF” mode is activated, load will keep off.

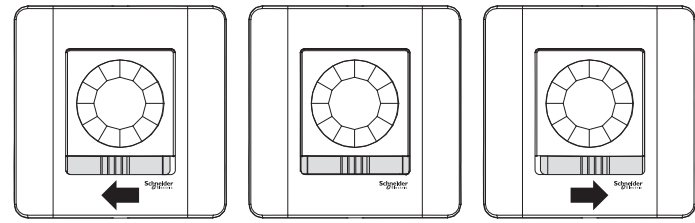


FIG.18

5 TROUBLE SHOOTING

When E84731MS2B_WE / E84751MS3B_WE works abnormally, check the suggested solutions in the following table.

Problem	Possible cause	Suggested solution
LED does not turn on.	1. Power does not switch on. 2. Wire is connected incorrectly.	1. Switch on the power. 2. Refer to wiring diagrams and connect wiring correspondingly.
Load does not turn on.	1. Wire is connected incorrectly. 2. Defective load. 3. Meter setting is too short. 4. The slide switch is at “OFF”.	1. Refer to wiring diagrams and connect wiring correspondingly. 2. Replace the defective load with a new one. 3. Setting Meter knob to “+”. 4. Adjust slide switch at “AUTO” or “ON”.
Load does not turn off.	1. Time setting is too long, sensor is continuously triggered. 2. Sensor is nuisance triggering. 3. Wire is connected incorrectly.	1. Set time in test mode, check whether the sensor is nuisance triggered. 2. Keep away from detection zone to avoid activating sensor. 3. Please check if load is connected correctly.
Nuisance triggering	There are heat sources or any objects which may be swayed in the wind within the detection field.	Avoid aiming the sensor toward any heat sources, such as air conditioners, electric fans, heaters or any highly reflective objects. Make sure there are no swaying objects within the detection field.

NOTE 3

- 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 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 sensor lens.