PMSCFMINI
CEILING MOUNT INDOOR OCCUPANCY SENSOR

SPECIFICATION:

1. Power Supply: 220V-240V ~ 50Hz.
2. Time adjustment: ⎍, 30 sec, 1 min, 5 min, 10 min and 30 min, maximum=TEST mode.
3. Lux adjustment: “Light level” sensing from 5 to 1000 Lux.
4. Range of detection reach up to 8m diameter, minor movement within 4m diameter. Refer to the figure 1.
5. Load:
   - Max. 2000W, 250VAC (cosθ=1)
   - Max. 1000W AC Halogen, 250VAC
   - Max. 1000W, 250VAC (cosθ=0.5) (uncompensated)
   - Max. 1500W, 250VAC (cosθ≥0.9)
     22 x (4 x 14W) ; 20 x (2 x 21W) ; 20 x (2 x 24W) ; 15 x (2 x 28W) ; 15 x (2 x 35W)
     12 x (2 x 39W) ; 12 x (2 x 49W) ; 10 x (2 x 54W) ; 10 x (1 x 80W)
   - Max. 300W
     10 x 9W ; 10 x 11W ; 10 x 13W ; 10 x 19W ; 10 x 20W ; 10 x 23W ; 10 x 24W
     10 x 26W ; 10 x 27W ; 10 x 32W ; 9 x 36W ; 8 x 38W ; 7 x 42W ; 6 x 50W
     6 x 55W ; 4 x 80W
   - LED Max. 300W
     10 Qty parallel connection
6. Auto mode/ Test mode/ Manual mode.

DETECTION RANGE:

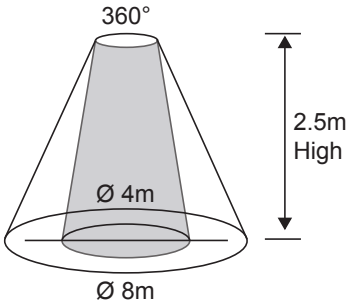

Figure 1

PRODUCT CONTENTS:

1. Motion Sensor unit.
2. Power Box unit.
3. User’s manual .

SAFETY INSTRUCTIONS:

1. Installation must be performed by a skilled/competent person who is familiar with the appropriate standards and technical requirements of the appliance and its proper installation. Ensure the supply is disconnected at the distribution board before doing with the electrical wiring. If any doubt, check the wire with a voltage tester.
2. Please follow wiring instruction before making any connection. Incorrect wiring may destroy the sensor unit.

INSTALLATION:

NOET: If you are not sure about any part of these instructions, consult a qualified electrician.

1. Turn OFF power at the circuit breaker or fuse.
2. Determine the best location for the sensor.
3. Drill a 38mm diameter hole in the ceiling.
4. Connect as shown in wiring diagram figure 5.
5. Insert the power module into the ceiling first and then fix the sensor with metal spring as shown in figure 2 below.

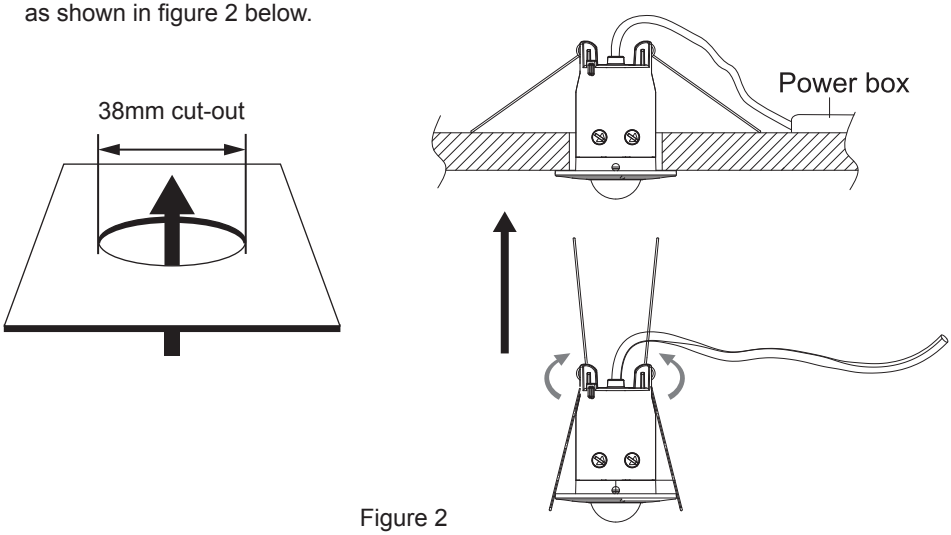

Figure 2

OPERATION:

When powered ON, the sensor unit needs about 60 seconds to warm up. The load will turn on during the warm up time.

ADJUSTMENTS:

1. **TIME:** The time can be set variably from ⎍, 30 sec, 1 min, 5 min, 10 min and 30 min. Timer starts counting from the latest detected movement. While there is still movement in the detecting area, the LED indicator will flash once and lighting will remain on and the timer will keep resetting. (Figure 3)

   PULSE (⎍) : If the arrow is pointing to “pulse” (⎍)
   - The sensor reacts to any motion in the detecting area, and to the settings of Lux.
   - When the sensor is activated, the LED indicator and lighting will be turned on for 1 second and off for 9 seconds as a complete period before receiving another detection.

   TEST: If the arrow is pointing to “TEST”
   - The Lux setting is deactivated.
   - When the sensor is activated by motion, the red LED and the lighting will be turned on for 3 seconds.

2. **LUX:** The LUX adjustment controls the light level at which the unit will switch on the light when movement is sensed. If set to the maximum position, it will switch during daylight. If set to the minimum position, it will operate only in total darkness. Ideally it should be set at dusk or in the light conditions under which the sensor and lights are expected to operate. Please refer to Figure 4.

   LUX Memory (👁): If the arrow is pointing to “lux memory” (👁), the sensor will memorize the ambient light level, from 5 lux to 200 lux as an on/off threshold.

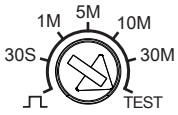

Figure 3

Figure 4

MANUAL MODE:

By adding an external switch according to the wiring diagram (Figure 5).
Quickly switch it off-and-on twice, to enter Override Mode. The lighting will remain On for up to 6 hours, and then go off and back to Auto Mode. Before the 6 hour delay time ends, if required, switch it one time (off-on) to back to Auto Mode.

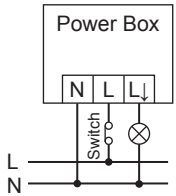

Figure 5

CONNECTION TO THE POWER SUPPLY:

Important:

1. Note: This sensor must be installed according to local Wiring Regulations and Code of Practice.
2. Ensure the supply is disconnected at the distribution board before doing with the electrical wiring. If any doubt, check the wire with a voltage tester.
3. Study the wiring diagram below before making any electrical connections. Incorrect wiring of the unit could destroy the sensor.

Connection:

1. The phase (L) and neutral (N) conductors of the supply cable are connected according to terminal assignment AC in. (Figure 6)
2. The output (or load) phase (L↓) and neutral (N) conductors are to be connected to the LOAD terminals L↓ and N.

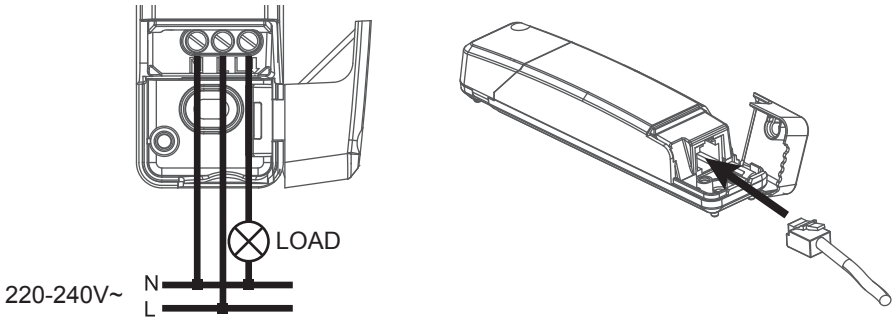

Figure 6

NOTE:

Maximum cable size: 2 x 1.5mm² max.

TROUBLE SHOOTING:

1. Unit will not function at all/Lights won't come on

- Check wiring to make sure that you have correct AC power at the unit.
- Check the wiring from the unit to the source of power to make sure you have wired the unit correctly.
- Check the ambient light control to see if it was set at your desired level.

2. Detector clicks but does not work

- Check if lamps are broken.
- Check if lamps are tight in lampholders.

3. Lights go on and off quickly

- Ensure light and heat are not being reflected onto the detector. Check for white or reflective surfaces that may be causing the problem.
- Note the detector is more sensitive in cold weather.

4. Lights stay on

- Check unit has not gone into Manual Override mode.
- Light bulb sockets may be wired directly to the power source. Recheck the wiring diagram.
- Adjust time to minimum, and ensure unit is firmly fixed to a solid object with no moving branches etc. in field of view.
- Ensure detector is not being activated by stray moving heat sources such as heating outlets, car etc.

5. Maintenance and repair

- Do not attempt to repair as this could invalidate warranty or result in personal injury.
- Clean detector lens and outside casing with damp cloth.

Due to our policy of continuous improvement we reserve the right to change specification without prior notice. Errors and omissions excepted. These instructions have been carefully checked prior to publication. However, no responsibility can be accepted by Challenger for any misinterpretation of these instructions.

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RoHS

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