General Specification

360° Passive Infrared

Low Voltage Occupancy Sensor

Model #: MPC-50L



Description: The MPC-50L 360° passive infrared (PIR) occupancy sensors turn lighting systems on and off based on occupancy and ambient light level. The light level feature keeps lights from turning on if ambient light level is sufficient. The sensors can be configured to turn lighting on, and hold it on as long as the sensor detects occupancy. After no movement is detected for a specified or auto-set time (5 seconds to 30 minutes) the lights switch off. A "walk-through" mode can turn lights off after only 3 minutes, if no activity is detected after 30 seconds of an occupancy detection.

* The MPC-50L operated on 24V supplied by MMP-24 power pack

Features

- Passive Infrared Technology(PIR)
- 360 ° field of view, 1200 sq.ft.
- Time Delay is adjustable from 5 seconds to 30 minutes
- Simple, fast installation
- Adjustable sensitivity settings
- Light level is adjustable.

Specifications

Voltage	24VDC
Current Consumption	9mA
Power Supply	MPP-24 Power Packs
Operating Temperature	32 ° to 131°F (0 °to 55℃)
Adjustable Light Level	10FC-150FC
Adjustable Time Delay	5 sec.-30min (DIP switch)
Walk-Through Mode	3 minutes if no activity after 30 sec.
Test Mode	5 sec. upon initial power-up or DIP switch reset
PIR Coverage:	
Sensitivity Adjustment	Automatic or Low (DIP switch)
Coverage	Up to 1200 ft^2

Testing & Code Compliance

- UL LISTED

Installation & wiring

CAUTION!
TURN POWER OFF AT THE CIRCUIT BREAKER BEFORE INSTALLING POWER PACKS OR SENSORS.

Each MPP-24 power pack can supply power for 6 MPC-50L sensors. When using more sensors than this, multiple power packs are required.

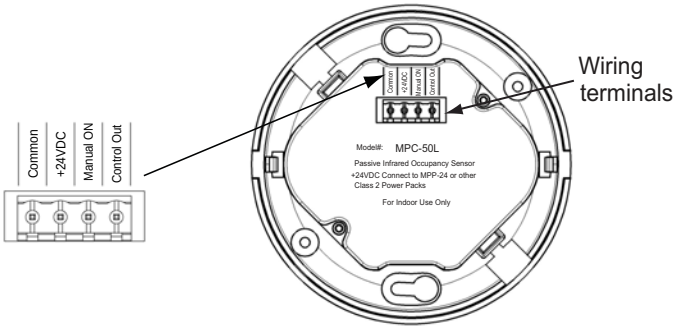


Figure 1

Connect the low voltage:

RED wire (+24VDC) from power pack to the +24V terminal on the sensor.
BLACK wire (Common) from power pack to Common terminal on the sensor.

Wiring a SINGLE LIGHTING LOAD CONTROLLED BY OCCUPANCY - Connect:
BLUE wire from power pack to Control Out terminal on sensor.

Wiring multiple SINGLE LIGHTING LOADs CONTROLLED BY OCCUPANCY, DEPENDENT ON LIGHT LEVEL (AMBIENT LIGHT) - Connect:
BLUE wire from power pack to Control Out terminal on sensors.

To add a MANUAL SWITCH such as the YQDS115M Momentary Toggle Switch, to the above applications - connect:

1. Wire from one side of switch to Common terminal on sensor.
2. Wire from other side of switch to Man Switch terminal on sensor.

Using an Octagonal J-Box

1. Pull the low voltage wires from the power pack into the J-Box through the conduit knockout.
2. Connect the low voltage wires to the appropriate terminals on the sensor.
3. Loosen the appliance mounting screws attached to the J-Box.
4. Align the sensor in the J-Box so that the mounting screws on the box match the key holes on the sensor's rear housing.
5. Push the sensor up into the J-Box and twist it so that the mounting screws are seated in the keyhole slots.
6. Tighten the two screws to secure the sensor to the J-Box.
7. Snap the front cover onto the sensor.

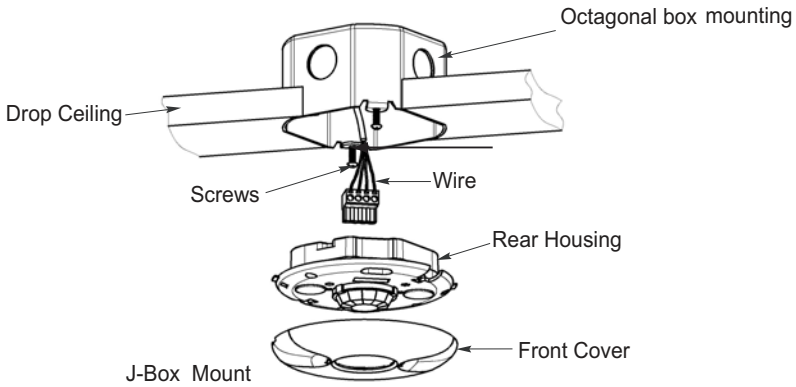


Figure 2

Coverage area

The MPC-50L provides a 360°coverage pattern, up to 1200 square feet. The coverage shown represents walking motion at a mounting height of 8 feet. For building spaces with lower levels of activity or with obstacles and barriers, coverage size may decrease.

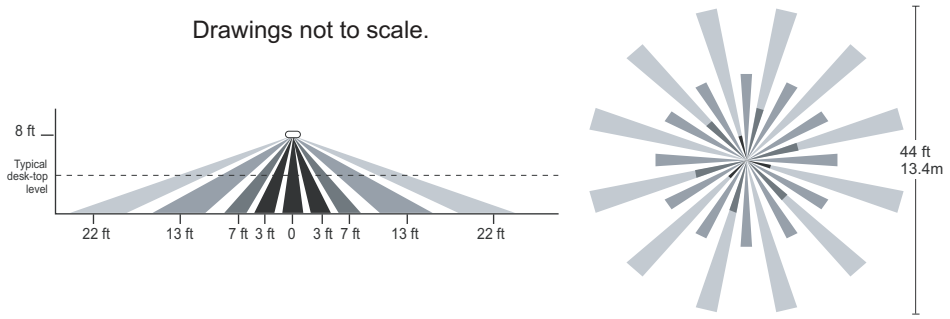


Figure 3

Adjustment

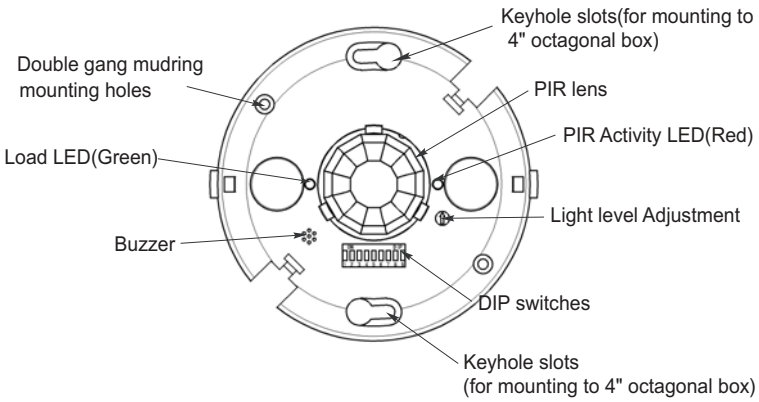


Figure 4

The sensors are factory preset to allow for quick installation in most applications. Verification of proper wiring or coverage, or customizing the sensor's settings can be done using the following procedures. To make adjustments, open the Front Cover with a small screwdriver.
There is a 40-second warm-up period when power is first applied.
Before making adjustments, make sure the office furniture is installed, lighting circuits are turned on, and the HVAC systems are in the overridden/on position. VAV systems should be set to their highest airflow. Set the DIP switches to the desired settings. See “DIP Switch Setting”.

DIP Switch Setting

The MPC-50L has 9 DIP switches under the cover. They are used to set sensitivity, time delay, walk through mode, vacancy mode, audible, visual alarm and Hold ON feature settings.

Sensitivity	1
50%	↓
100%	↑ ◀

Walk Through	5
Disabled	↓ ◀
Enabled	↑

Vacancy	6
Disabled	↓ ◀
Enabled	↑

Time Delay	2	3	4
5 Sec/Autoset	↓	↓	↓ ◀
30 Seconds	↓	↓	↑
5 Minutes	↓	↑	↓
10 Minutes	↓	↑	↑
15 Minutes	↑	↓	↓
20 Minutes	↑	↓	↑
25 Minutes	↑	↑	↓
30 Minutes	↑	↑	↑

Audible Alert	7
Disabled	↓ ◀
Enabled	↑

Visible Alert	8
Disabled	↓
Enabled	↑ ◀

Hold ON	9
Disabled	↓ ◀
Enabled	↑

↓=OFF ↑=ON ◀=Factory Setting

Enerlites Inc.
www.enerlites.com
Phone: 949-756-0536 Fax: 949-756-0528 e-mail: sales@enerlites.com

Date: 03/01/2016