



# CX-100 Passive Infrared Occupancy Sensor

Turns lights on and off based on occupancy

User-adjustable time delay and sensitivity

ASIC technology reduces components and provides greater reliability



Choice of four coverage patterns

Built-in light level sensor

Isolated relay for use with HVAC or other control systems

PROJECT

LOCATION/TYPE

## Product Overview

### Description

Watt Stopper/Legrand's CX-100 and CX-105 are passive infrared occupancy sensors that control lighting in a wide variety of applications. These sensors provide superior coverage and performance with great energy savings.

### Operation

The 24 VDC occupancy sensors control lighting systems through Watt Stopper power packs. The units operate by turning lighting on when they detect the difference between infrared energy from a human body in motion and the background space. After the area is vacated and the time delay elapses, lighting automatically turns off.

### Coverage Choices

The CX sensors are available with a choice of coverage patterns. The standard lens offers coverage up to 1000 square feet for typical desktop activity. When using the -1 or -3 lens, motion moving toward sensors will begin to be detected at 55 to 60 feet.

### Applications

The CX sensors are ideal for large areas and can cover up to 2000 square feet of walking motion. By choosing the proper lens pattern for each application, the sensors can reliably cover large offices, computer rooms, classrooms, aisle ways, warehouses, and open offices where coverage cut-off is desired. Corner mounting to a wall or ceiling adds versatility and more control to the coverage.

## Features

- ASIC technology reduces components and enhances reliability
- Pulse Count Processing eliminates false offs without reducing sensitivity
- Detection Signature Analysis eliminates false triggers; provides immunity to RFI and EMI
- Digital time delay adjustable from 15 seconds to 30 minutes
- Adjustable sensitivity enables occupancy detection to match the level of activity for each space
- Integrated light level sensor (CX-100) can create bi-level control for added energy savings
- Multi-level Fresnel lens for superior desktop occupancy detection with four lens patterns
- Isolated relay can interface with HVAC, EMS systems, monitoring systems, or with an additional lighting load
- Dual-element, temperature compensated pyroelectric sensor
- Swivel mounting bracket for convenient corner mounting to wall or ceiling
- LED indicates occupancy detection





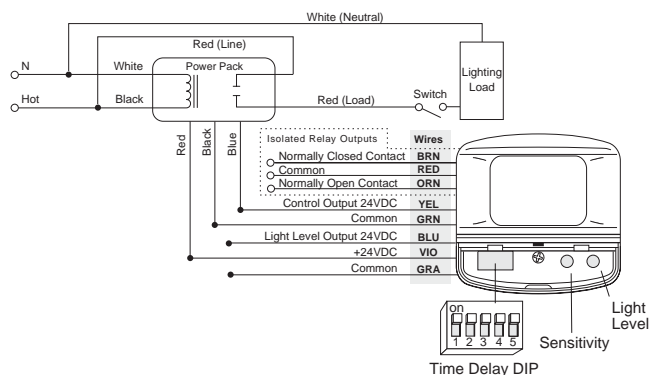
# CX-100 Technical Information

## Specifications

- Dual-element, temperature compensated pyroelectric sensor
- CX-100 contains isolated relay with N/O and N/C outputs; rated for 1 Amp at 24 VDC/VAC
- Time delay adjustment from 15 seconds to 30 minutes
- Integrated light level sensor (CX-100) – works from 3 to 200 footcandles (32 - 2,152 lux)
- Units per power pack: CX-100 up to 6 (B), up to 8 (BZ); CX-105 up to 14 (B), up to 18 (BZ)
- Dimensions: 3.3" x 3.3" x 2.1" (83.8mm x 83.8mm x 53.3mm) (W x L x D)
- UL and CUL listed; five year warranty

## Wiring & Settings

### Wiring Diagram



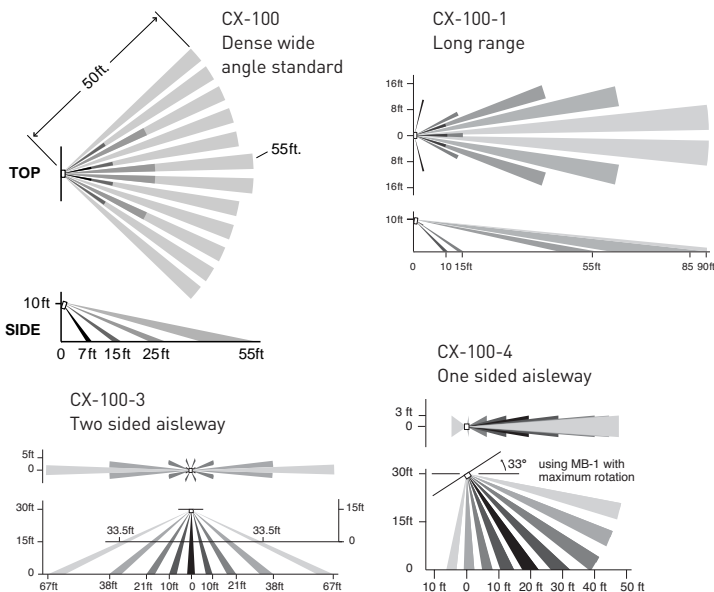
### DIP Switch Settings

Time Delays	DIP Switch #				
	1	2	3	4	5
15 seconds	●	●	●	●	—
2 minutes	—	●	●	●	—
4 minutes	—	—	●	●	—
6 minutes	—	—	—	●	—
8 minutes	—	—	—	—	●
10 minutes	—	—	—	—	—
12 minutes	—	—	—	—	●
14 minutes	—	—	—	—	—
16 minutes	—	—	—	—	—
18 minutes	—	—	—	—	●
20 minutes	—	—	—	—	—
22 minutes	—	—	—	—	—
24 minutes	—	—	—	—	●
26 minutes	—	—	—	—	—
28 minutes	—	—	—	—	●
30 minutes	—	—	—	—	—
Override	—	—	—	—	●

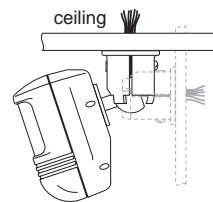
●=on    —=off    ◆=factory preset

## Coverage & Mounting

### Coverage



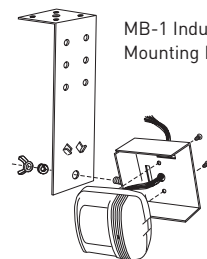
### Mounting



A swivel mounting bracket allows the sensor to be angled for wall or ceiling mounting.

Grooves on the bracket help to achieve desired angle for coverage.

### Industrial Mounting



MB-1 Industrial Mounting Bracket

The MB-1 is used for installing to ceilings or fixtures in industrial settings.

Coverages shown are maximum and represent half-step walking motion. Under ideal conditions, with no barriers or obstacles, coverage for half-step walking motion with the standard lens can reach up to 2000 ft<sup>2</sup> while coverage for typical desktop activity can reach up to 1000 ft<sup>2</sup>. When using the -1 or -3 lens, motion moving toward sensors will begin to be detected at 55 to 60 feet.

## Ordering Information

Catalog No.	Voltage	Current	Coverage	Features
<input type="checkbox"/> CX-100*	24 VDC	19 mA	up to 2000 ft <sup>2</sup> (185.8 m <sup>2</sup> )	isolated relay, light level
<input type="checkbox"/> CX-100-1*	24 VDC	19 mA	up to 90 linear ft (27.4 m)	isolated relay, light level
<input type="checkbox"/> CX-100-3*	24 VDC	19 mA	up to 120 linear ft (36.6 m)	isolated relay, light level
<input type="checkbox"/> CX-100-4*	24 VDC	19 mA	up to 50 linear ft (15.2 m)	isolated relay, light level
<input type="checkbox"/> CX-105	24 VDC	8 mA	up to 2000 ft <sup>2</sup> (185.8 m <sup>2</sup> )	
<input type="checkbox"/> CX-105-1	24 VDC	8 mA	up to 90 linear ft (27.4 m)	
<input type="checkbox"/> CX-105-3	24 VDC	8 mA	up to 120 linear ft (36.6 m)	
<input type="checkbox"/> CX-105-4	24 VDC	8 mA	up to 50 linear ft (15.2 m)	
<input type="checkbox"/> MB-1	Industrial Mounting Bracket (recommended for use with -3 and -4 lenses)			
<input type="checkbox"/> MB-2	Industrial Mounting Bracket for HID fixtures			

All units are white and use Watt Stopper power packs. Current consumption can be slightly higher when only 1 sensor per power pack is used.