

CI-12,CI-24 Passive Infrared HVAC/BAS Ceiling Sensor

360° coverage

Interfaces directly with EMS or HVAC system through internal isolated relay

User adjustable time delay and sensitivity via DIP switch



Four-level Fresnel lens offers superior desktop detection

Low profile design

ASIC technology reduces components and enhances reliability

PROJECT

LOCATION/TYPE

Product Overview

Description

WattStopper's CI-12 and CI-24 ceiling mount passive infrared occupancy sensors reduce energy waste in unoccupied building spaces by communicating occupancy to EMS and HVAC systems.

Operation

The CI-12 and CI-24 occupancy sensors integrate with building control systems via an internal isolated relay. The isolated relay has normally open and normally closed outputs and is rated for 1 Amp at 24 VAC/VDC. The CI-12 connects directly to 12 VDC building control systems and the CI-24 connects to 24 VAC or 24 VDC building control systems. Power pack use is not necessary. When occupancy is detected, the sensor signals a building control system that then either turns devices on, such as heating or air conditioning, or increases their levels. Likewise, when the controlled area is vacated, the building control system will reduce airflow and fan speed or turn devices off.

Coverage

Coverage for the sensors can reach up to 1200 square feet using the Extended Range lens and 500 square feet using the High Density lens (circular pattern) for walking motion. For typical desktop level activity, coverage can reach up to 300 square feet.

Applications

The CI-12 and CI-24 offer an easy way to reduce energy consumption in a large variety of building spaces. By working directly with a Building Automation System, the cost of purchasing power packs and the cost of labor for power pack installation is eliminated. Furthermore, the sensors' low unit cost and reduction in energy consumption result in fast paybacks.

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 adjustment from 30 seconds to 30 minutes
- Two levels of sensitivity (minimum or maximum) are selectable through the DIP switch
- Multi-level Fresnel lens for superior desktop detection
- LED indicates occupancy detection
- Qualifies for ARRA-funded public works projects

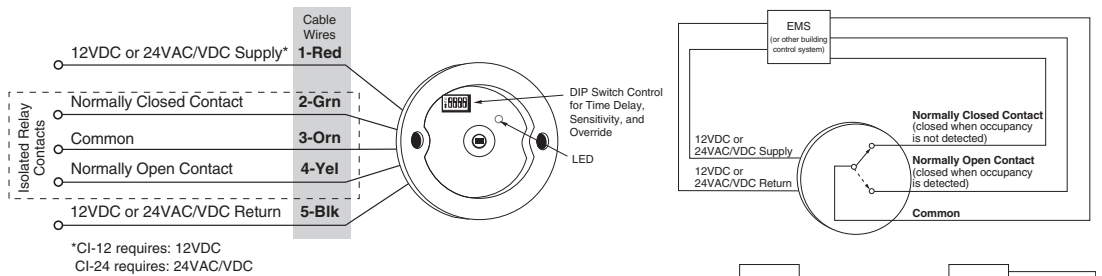


Specifications

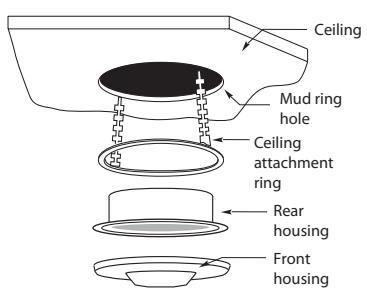
- Dual-element, temperature compensated pyro-electric sensor
- Time delay adjustment from 30 seconds to 30 minutes
- Isolated relay with normally open and normally closed outputs; rated 1 Amp @ 24 VDC/VAC
- Operates at 12 VDC (CI-12); 24 VAC or 24 VDC (CI-24)
- Mounting options: ceiling tile or round mudring
- Dimensions: 3.3" diameter x 2.2" depth (85mm x 56mm), extends approximately 0.36" (9.1mm) from ceiling
- UL and cUL listed
- Five year warranty

Wiring, Mounting & Settings

Wiring Diagram



Mounting



DIP Switch Settings

DIP Switch #	1	2	3	4
Time Delays				
30 seconds	●	●		
10 minutes	●	—		
20 minutes	—	●		
30 minutes	—	—		

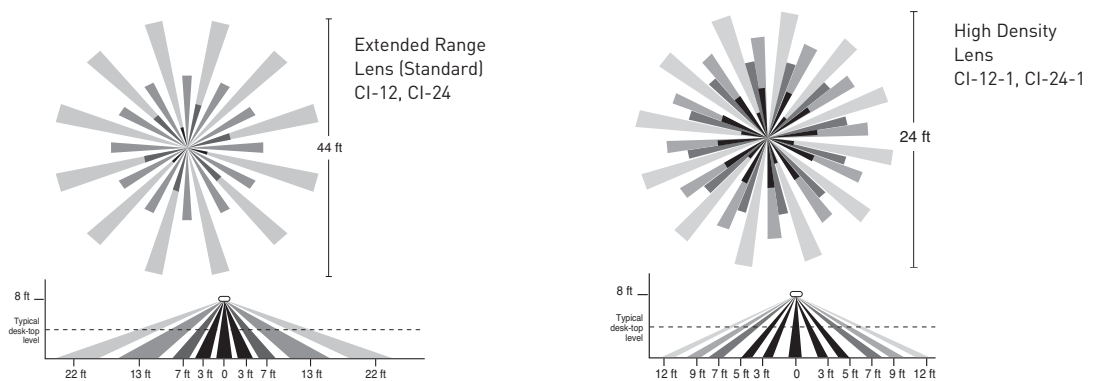
Sensitivity			
Minimum			—
Maximum		●	

Override			
Normal			—
Override		●	

●=ON —=OFF
◀=factory presets

Coverage

Coverage Patterns



Coverage shown is maximum and represents coverage for half-step walking motion. Under ideal conditions, with no barriers or obstacles, coverage for half-step walking motion can reach up to 1200 ft² using the Extended Range lens and up to 500 ft² using the High Density lens. For typical desk-top level of activity, coverage can reach up to 300 ft² using the High Density lens.

Ordering Information

Catalog No.	Voltage	Current	Coverage
<input type="checkbox"/> CI-12	12 VDC	28 mA	360°; up to 1200 ft ² (111.5 m ²)
<input type="checkbox"/> CI-12-1	12 VDC	28 mA	360°; up to 500 ft ² (46.5 m ²)
<input type="checkbox"/> CI-24	24 VAC or 24 VDC	37 mA	360°; up to 1200 ft ² (111.5 m ²)
<input type="checkbox"/> CI-24-1	24 VAC or 24 VDC	37 mA	360°; up to 500 ft ² (46.5 m ²)

Units are white