DT-355 Dual Technology Line Voltage Ceiling Sensor

Architecturally appealing, low profile appearance

Operates at 120, 230 (single phase), 277 or 347 VAC, 50/60 Hz

Terminal wiring for quick and easy installation

Ultrasonic diffusers give more comprehensive coverage

Walk-through mode increases savings potential

PROJECT
LOCATION/TYPE

Product Overview

Description

WattStopper's low profile DT-355 dual technology occupancy sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies. The sensor mounts on the ceiling with a flat, unobtrusive appearance and provides 360 degrees of coverage.

Operation

The DT-355 is line voltage and operates on a single phase at 120, 230, 277 or 347 VAC. The sensor turns lighting on when both PIR and ultrasonic technologies detect occupancy. PIR technology senses the difference between infrared energy from a human body in motion and the background space. Ultrasonic technology uses high frequency (40KHz) ultrasound to sense motion within the space. Once lighting is on, detection by either technology holds lighting on. When no occupancy is detected for the length of the time delay, lighting turns off. The DT-355 can also be set so that only one technology is needed to trigger or both technologies are needed to hold lighting on.

Time Delay Options

The DT-355 is factory set for a 20 minute time delay, ideal for both energy savings and user satisfaction in most applications. Installers can quickly select other fixed time delays (5, 10, 15 or 30 minutes) via DIP switches. Fixed time delays eliminate the occupant dissatisfaction associated with an automatically adjusted time delay option, and reduce callbacks. Walk-through mode may be enabled for added energy savings in spaces with frequent transient traffic.

Application

WattStopper's patented dual technology has the flexibility to work in a variety of applications, where one technology alone could encounter false triggers. Ideal applications include classrooms, open office spaces, large offices, and computer rooms. In addition, because the DT-355 can be mounted onto a variety of junction boxes, the sensor has the flexibility to be used in a wide range of spaces. The sensors eliminate the need for a power pack by using line voltage wiring.

Features

- Advanced control logic based on RISC micro-controller provides:
  - Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
  - Walk-through mode turns lights off 3 minutes after the area is initially occupied – ideal for brief visits such as mail delivery
  - Built-in light level sensor featuring simple, one-step setup
- Zero-crossing for long relay life

- Ultrasonic diffusion technology spreads coverage to a wider area (patent pending)
- DIP switch simplifies sensor adjustments
- LEDs indicate occupancy detection
- Uses existing line voltage wiring and doesn't require a power pack
- Six occupancy logic options give users the ability to customize control to meet application needs
- Qualifies for ARRA-funded public works projects
- Sensor coverage tested to NEMA Guide Publication WD 7-2000

Specifications

- 120/230 (single phase)/277/347 VAC, 50/60 Hz
- Ultrasonic frequency of 40kHz
- Time delays: 5, 10, 15, 20, or 30 minutes, walk-through, test-mode
- Sensitivity adjustment: High/low (for PIR sensitivity); ultrasonic sensitivity is variable with trimpot
- Built-in light level sensor – works from 10 to 300 footcandles (107.6 to 3,229.2 lux)

- Multi-level, 360° Fresnel lens for superior occupancy detection
- Mounting options: 4 square junction box with double gang mudring; 4 inch octagonal junction box
- Dimensions: 4.50" diameter x 1.45" deep (114.3mm x 25.9mm)
- UL and cUL listed
- Five year warranty
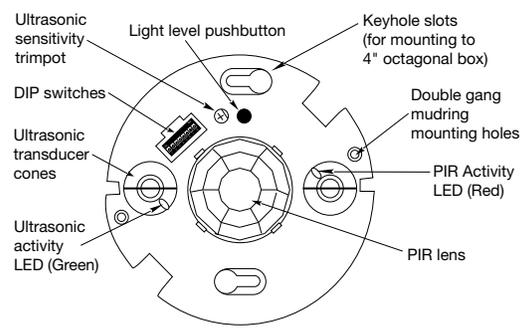
Wiring & Mounting

DT-355 Wiring Diagram
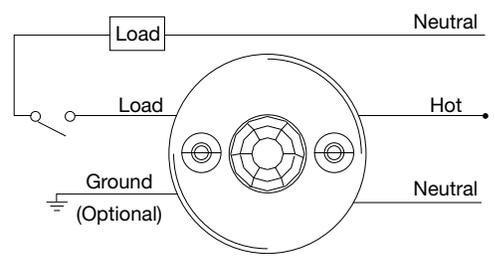
Ceiling Mounting
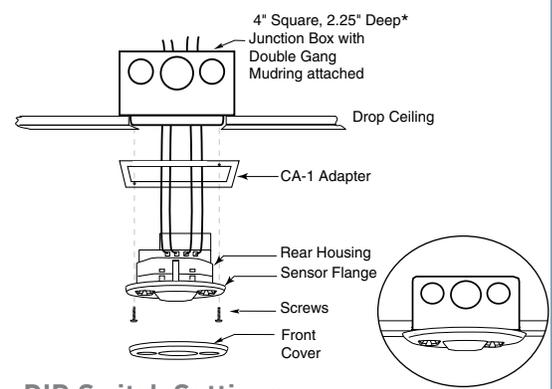
Controls & Settings

Product Controls

DIP Switch Settings

Feature	Switch#		
Time Delay	**1**	**2**	**3**
Test Mode/20 min	↓	↓	↓
30 seconds	↓	↓	↑
5 minutes	↓	↑	↓
10 minutes	↓	↑	↑
15 minutes	↑	↓	↓
20 minutes	↑	↓	↑ ◄
25 minutes	↑	↑	↓
30 minutes	↑	↑	↑

Walk-Through	**4**
Enabled	↑
Disabled	↓ ◄

PIR Sensitivity	**5**
Minimum	↑
Maximum	↓ ◄

Occupancy Logic	Settings	6	7	8
	Standard	↓	↓	↓ ◄
	Option 1	↑	↓	↓
	Option 2	↓	↑	↓
	Option 3	↑	↑	↓
	Option 4	↓	↓	↑
	Option 5	↑	↓	↑
	Option 6	↓	↑	↑
	Option 7	↑	↑	↑

Occupancy Logic	Trigger	Initial Occupancy	Maintain Occupancy	Re-trigger (seconds duration)
	Standard	Both	Either	Either(5)
	Option 1	Either	Either	Either(5)
	Option 2	PIR	Either	Either(5)
	Option 3	Both	PIR	Both(5)
	Option 4	PIR	PIR	PIR(5)
	Option 5	Either	PIR	Either(5)
	Option 6	Man.	Either	Either(30)
	Option 7	Man.	PIR	Both(30)

◄ = Factory Setting
↑ = ON
↓ = OFF

The control technology (occupancy logic) is selectable. The default setting requires both technologies to trigger on, either to hold on, and is recommended for most applications.

Coverage

Coverage Pattern

36 ft (10.97m)

36 ft x 36 ft (10.97m x 10.97m)
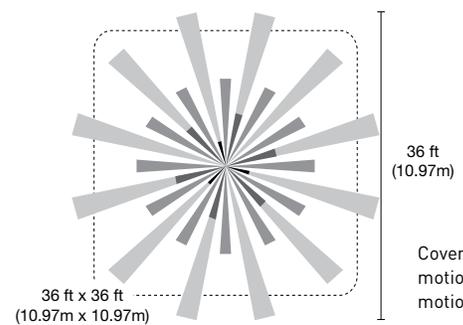
Coverage shown is maximum and represents half-step walking motion. Under ideal conditions, coverage for half-step walking motion can reach up to 1000 ft^2 (92.9 m^2).

Ordering Information

Catalog No.	Voltage	Load Rating	Coverage
☐ DT-355 ☐ DT-355-U	120 VAC, 50/60 Hz 277 VAC, 50/60 Hz 347 VAC, 50/60 Hz	0-800W Ballast/Tungsten/LED 0-1200W Ballast/LED 0-1500W Ballast/LED	up to 1000 ft^2, (92.9 m^2)
☐ CA-1	Cosmetic adapter for ceiling installations with 4" square j-box or Wiremold #V5748-2 box		

Sensors are white.
-U = ARRA compliant. Product produced in the U.S.