

GE Lighting Controls

GE Aware™

Dual Technology Ceiling Low Voltage Occupancy Sensor

CDT

Overview

The CDT ceiling mounted low voltage occupancy sensor is a Passive Infrared (PIR) and Ultrasonic (US) motion sensing lighting control, used for energy savings and convenience. PIR is used to turn the lights ON and then either or both technologies are used to keep the lights ON. When motion is detected, the blue wire is electronically connected to the red wire, energizing the relay in the switchpack to turn the load on. If vacancy is detected, the blue wire is disconnected from the red, causing the relay to open turning off the load. The red lead is 10-30VDC supply, the black lead is common, and the blue is the relay control.

PIR Technology

The sensor's segmented lens divides the field of view into sensor zones, and detects the changes in temperature that are created when a person, or part of a person as small as a hand, passes into or out of a sensor zone.

US Technology

The sensor produces a low intensity, inaudible sound. It detects occupancy from changes in the acoustic waves caused by motion, such as reaching for a telephone, turning a page in a book, walking into a room, turning in a swivel chair, etc. The sensor does not respond to audible sound.

The sensor includes self-adaptive technology that continually adjusts to conditions by adjusting sensitivity and time delay in real-time.

Two Methods of Detection:

Lights are activated when the PIR portion of the sensor detects occupancy. The sensor is set at the factory to the Either Mode. In this mode, lighting is maintained when either technology detects motion. If the ultrasonic portion detects occupancy, the ultrasonic time delay resets. The same is true for the PIR portion of the sensor. Lights deactivate when the last time delay elapses. A 10-second "grace period" allows lights to be turned on by motion anywhere in the room after being turned off due to inactivity. The CDT can be configured to require both technologies to maintain lighting. This is achieved by selecting the Both Mode DIP switch option. In Both Mode, ultrasonic detection and PIR detection resets the time delay. Lights deactivate when the first time delay elapses followed by a 10-second "grace period".

Ordering

Product Code	Description	Color	Coverage	Field of View
63264	CDT-05-180-R	White	Up to 450 sq. ft.	180°
63268	CDT-20-360-R	White	Up to 1200 sq. ft.	360°



Specifications

Technology: Passive Infrared (PIR) and Ultrasonic (US)

Electrical Ratings:

Input:

- 10-30VDC from GE Switchpack or GE System. Maximum current needed is 25mA per sensor.

Output:

- Open collector output to switch up to ten GE Switchpacks.
- Isolated Form C Relay
- Isolated Form C Relay Ratings: 1A 30VDC/VAC

Operating Environment:

- Temperature: 32° F - 104° F (0° C - 40° C)
- Relative Humidity: up to 95% non-condensing
- For indoor use only

Time Delays: Self-Adjusting, 15 Second/Test (10 min Auto) Selectable 30 minute lock.

Housing:

- Medium impact injection molded housing. ABS resin complies with UL 94V0. Paintable off-white.

Size:

- 1.42"H x 3.75"W x 6.5"D (36.1mm x 95.3mm x 165.1mm)

Daylight sensor:

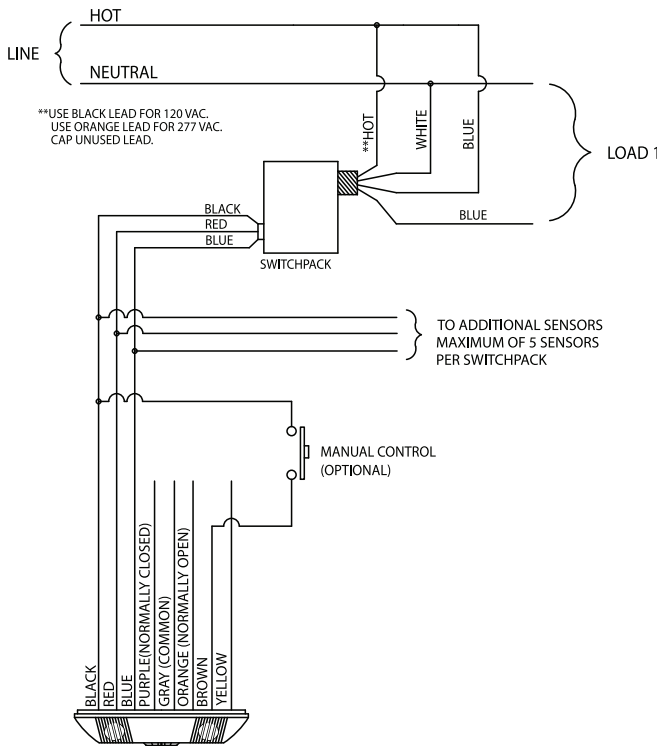
- 10 fc - 150 fc user selectable

LED Indicators: Red LED indicates PIR detection Green LED indicates US detection.



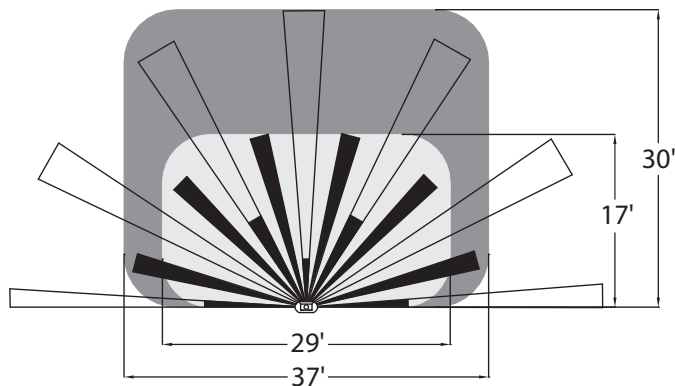
Wiring Diagram (consult instruction sheet for other wiring options)

WARNING
 Risk of electric shock
 • Turn power off before servicing
 • Install per National Electric Code

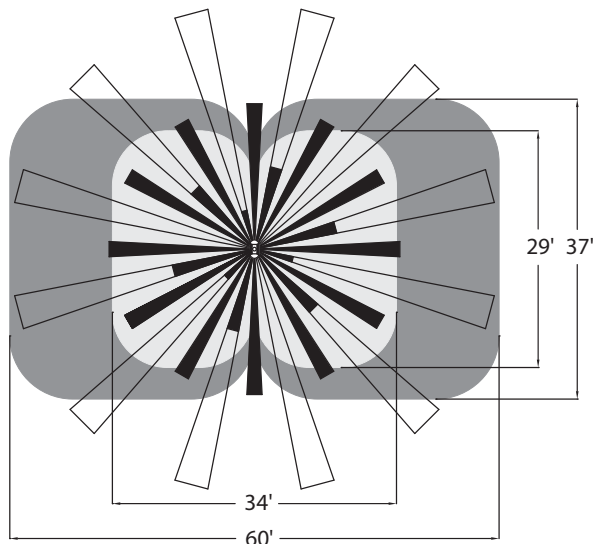


Coverage Minor Major

CDT-05-180-R



CDT-20-360-R



Settings

DEFAULT	DIP Switch Legend							
	Activation	Lighting Sweep	Time Delay	Energy Saver	Not used	Sensitivity	Maintain Lights ON	Override
DIP SWITCH	1	2	3	4	5	6	7	8
	Auto ▼	Disabled ▼	Self-Adjust* ▼	Disabled ▼	Not used ▼	Normal Sensitivity ▼	Either Technology ▼	Enabled ▼
	Manual ▲	Enabled ▲	30 Minute Lock ▲	Enabled ▲	▲	Low Sensitivity ▲	Both Technologies ▲	Disabled ▲
*Self-Adjusts to 10 min user mode	CAUTION: TURNING ANY DIP SWITCH ON/OFF, EXCEPT DIP SWITCH 3, WILL RESET TIME DELAY BACK TO 15 SECOND TEST MODE. TURNING DIP SWITCH 6 ON FOR THREE SECONDS AND BACK TO OFF WILL NOT ONLY RESET TIME DELAY, BUT WILL ALSO RESET UNIT BACK TO FACTORY SETTINGS. TO MANUALLY SET SENSOR TO 10 MINUTE DELAY, TURN DIP SWITCH 3 ON FOR ONE SECOND AND BACK TO OFF.							