LIGHTING CONTROLS

DUAL PIR/ULTRASONIC OCCUPANCY AND LIGHT SENSOR
DT-300 SERIES

WattStopper | **legrand**

DESCRIPTION

The **Wattstopper low-profile DT-300 dual-technology occupancy senso**r with light level sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies. The sensor mounts in the ceiling with a flat, unobtrusive appearance and provides 360 degrees of coverage. Using SmartSet(™) technology, the **DT-300** requires no adjustment at installation. SmartSet(™) continuously monitors the controlled space to identify usage patterns.

Using this information, it automatically adjusts the time delay and sensitivity settings for optimal performance and energy efficiency. The sensor assigns short delays (as low as 5 minutes) for times when the space is usually vacant, and longer delays (up to 30 minutes) for busier times.The **DT-305** is a lower cost version of the **DT-300** without isolated relay or light level sensor.

FEATURES

- **SmartSet(™) automatically adjusts sensitivity and time delay**
- **Walk-through mode turns lights off**
- **Ultrasonic diffusion and PIR technology**
- **LED occupancy indication**
- **Pluggable terminal wiring**
- **Light level sensing with setpoint**

DT-300

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OPERATION

- PIR technology senses the difference between infrared energy from a human body in motion and the bacKground space. Ultrasonic technology uses the Doppler principle and high frequency (40 KHz) ultrasound to sense motion.

- Once lighting is on, detection by either technology holds lighting on.

- In normal operation, the **DT-300** turns lighting on when configured that one or both the PIR and ultrasonic technologies detect occupancy.

- When no occupancy is detected for the length of the configurable time delay, lighting turns off.

- The **DT-300 Light Sensor** has a configurable setpoint (SP). When the setpoint is exceeded the light output goes to 24VDC to control a remote relay.

SPECIFICATIONS

Supply Voltage	Requires external DC power supply	**Indication**	LED, Red (PIR) /Green (Ultrasonic) with enable-disable selection
DT300	24 V (AC/DC), ±10% @ 43 mA	**Mounting**	Ceiling 3.5" to 4" hole, Octagonal box or ceiling direct with spring clips
DT305	24 V (AC/DC), 10% @ 35 mA		
Output		**Color**	White
DT-300	Aux Volts out, Isolated Contact and light output	**Operating Temperature**	32° to 131°F (0° to 55°C)
DT-305	Aux Volts out only on motion detect	**Operating Humidity**	10-95% RH non-condensing
Aux Output	Motion initiated (Int.) 24VDC output	**Wiring**	De-pluggable terminal strip, 4 (305)
SPDT (300)	Motion Int. contact, 30V (AC/DC) @ 1A		or 8 (300)
Light Output (300)	Adjustable 10–300 fc to initiate a 24VDC output	**Enclosure Rating**	Indoor, No rating
Technology	Passive Infra-Red (IR) with Fresnel Lens, 40KHz Ultrasonic	**Dimensions**	4.50"Ø x 1.02"D (114.3mm x 25.9mm)
		Weight	1.0 lb (0.46 Kg)
Occupied Mode (Occ)	Occ.-Auto ON with Single or both technologies with TD OFF	**Approvals**	UL File E101196
		Warranty	5 years
Approx. Coverage Pattern			
DT-300	360°, 12' ceiling/ 36' dia. circle		
DT-305	360°, 12' ceiling/ 40' dia. circle		
Sensitivity	Adjustable for both technologies		
Infrared	2 Dip switch settings Auto or Min		
Ultrasonic	POT Adjustment under cover		
Light SP (300)	Adjustable 10–300 fc to initiate a 24VDC output		
Override	Momentary DI input to simulate a "Motion Alert"		
OFF Delay Time (TD)	DIP switches (5 seconds to 30 minutes)		

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WATTSTOPPER DUAL-TECHNOLOGY OCCUPANCY AND LIGHT SENSOR
DT-300 SERIES

WIRING

Occupancy and Light Level Controlled Lighting
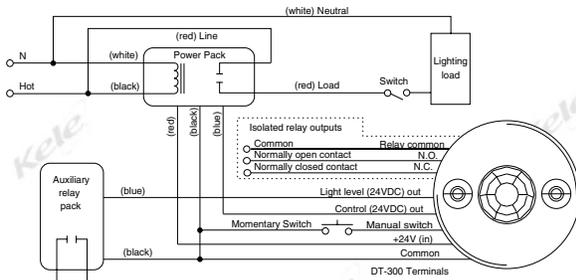
DT300

Occupancy
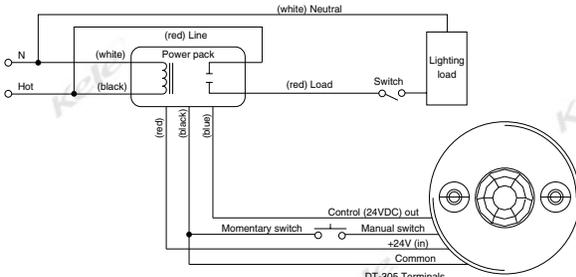
DT305

**Notes: Exceeding voltage rating may damage sensor.
Shown with BZ-50 power pack (optional).**

DIP SWITCH SETTINGS

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

Time Delay	1	2	3
5 sec/SmartSet ⚫(walk)	–	–	– ◄
5 min	–	–	●
10 min ⚫(walk)	–	●	●
10 min	–	●	●
15 min ⚫(walk)	●	–	–
15 min	●	–	●
20 min	●	●	–
30 min	●	●	●

🚶 = walk-through mode

◄ = Factory Setting
● = ON
– = OFF

Logic	Switch# 6	7	8
Standard	–	–	– ◄
Option 1	●	–	–
Option 2	–	●	–
Option 3	●	●	–
Option 4	–	–	●
Option 5	●	–	●
Option 6	–	●	●
Option 7	●	●	●

(left label: Occupancy)

LEDs	4
Disabled	–
Enabled	● ◄

PIR Sensitivity	5
Minimum	–
Maximum/SmartSet	● ◄

Ultrasonic sensitivity trimpot
Light level pushbutton
Keyhole slots (for mounting to 4" octagonal box)
DIP switches
Double gang mudring mounting holes
Ultrasonic transducer cones
PIR Activity LED (Red)
Ultrasonic activity LED (Green)
PIR lens
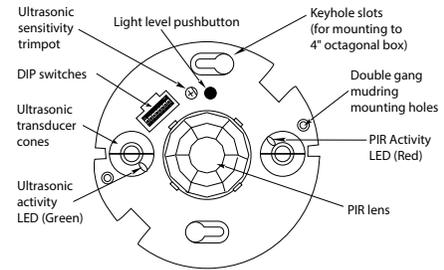
COVERAGE

Coverage @ 12' Height

PIR Coverage
Ultrasonic Coverage

DT-305 44'(13.4m)
DT-300 36'(11m)

DT-305 40' x 40'(12m x 12m)
DT-300 36' x 36'(11m x 11m)

MOUNTING

4" Octagonal J-Box (at least 1.5" deep)
Ceiling
Depluggable terminal
Rear Housing
Screws
Front Cover

J-Box Mount

Ceiling
Depluggable terminal
Spring clips (2)
Rear housing
Front cover
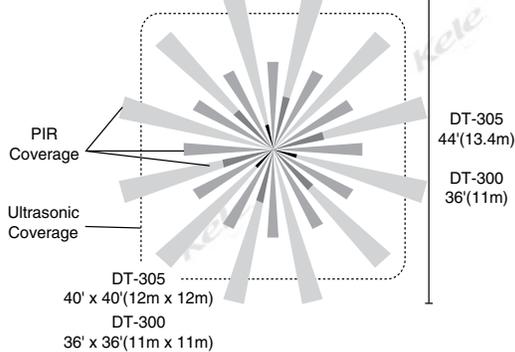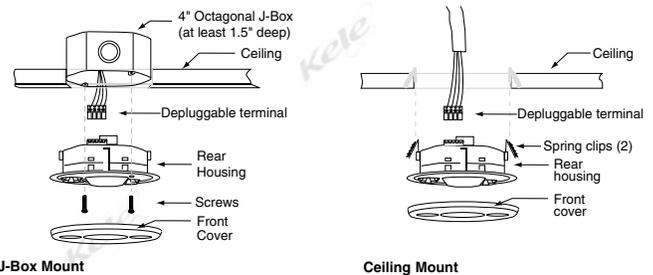
Ceiling Mount

ORDERING INFORMATION

MODEL	DESCRIPTION
DT-300	Dual technology occupancy ceiling mount sensor with isolated relay and light level actuation
DT-305	Dual technology occupancy ceiling mount sensor with 24 VDC output only (no light level or relay)

	RELATED PRODUCTS
BZ-50	120-277 VAC to 24 VDC power pack with SPST Relay and 12-24VDC coil