LOW VOLTAGE DUAL TECHNOLOGY CEILING SENSORS

DT-300 SERIES

Architecturally appealing low-profile appearance

Walk-through mode increases savings potential

Ultrasonic diffusers give more comprehensive coverage



Plug terminal wiring for quick and easy installation

Accepts low-voltage switch input for manual-on operation

Supports automatic or manual-on operation

DESCRIPTION

The DT-300 Series Dual Technology Ceiling Sensors combine the benefits of passive infrared (PIR) and ultrasonic technologies to detect occupancy. Sensors have a flat, unobtrusive appearance and provide 360 degrees of coverage.

OPERATION

Low voltage DT-300 Series sensors utilize a Wattstopper power pack to turn lights on when both PIR and ultrasonic technologies detect occupancy. They can also work with a low voltage switch for manual-on operation. PIR technology senses motion via a change in infrared energy within the controlled area, whereas ultrasonic uses 40KHz high frequency ultrasound. Once lights are on, detection by either technology holds them on. When no occupancy is detected for the length of the time delay, lights turns off. DT-300 Series Sensors can also be set to trigger lights on when either technology or both detect occupancy, or to require both technologies to hold lighting on.

TIME DELAY OPTIONS

The DT-300 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.

APPLICATIONS

DT-300 Series Dual Technology Sensors have the flexibility to work in a variety of applications, where one technology alone could cause false triggers. Ideal applications include classrooms, open office spaces, large offices and computer rooms. The DT-300 Series mounting system makes them easy to install in ceiling tiles or to junction boxes, providing the flexibility to be used in a wide range of spaces.

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 three minutes after the area is initially occupied – ideal for brief visits such as mail delivery
- Available with built-in light level sensor featuring simple, one-step setup
- Patented ultrasonic diffusion technology spreads coverage to a wider area
- LEDs indicate occupancy detection
- Sensors work with low-voltage momentary switches to provide manual control
- Uses plug terminal wiring system for quick and easy installation
- Eight occupancy logic options provide the ability to customize control to meet application needs
- Available with isolated relay for integration with BAS or HVAC
- BAA/TAA-compliant models available
- Sensor coverage tested to NEMA Guide Publication WD 7-2000

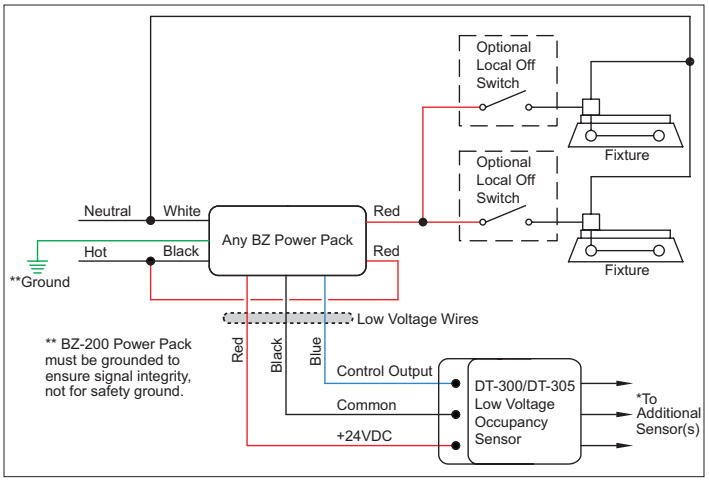
PROJECT		LOCATION/ TYPE	

SPECIFICATIONS

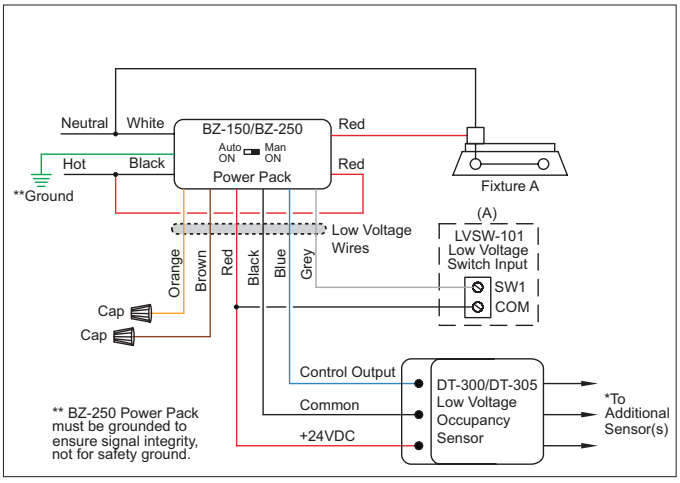
- 18–28 VDC/VAC
- Current Consumption @24VDC/VAC
  - DT-300: 25mA (DC)/74mA (AC)
  - DT-305: 16mA (DC)/69mA (AC)
- Ultrasonic frequency: 40kHz
- Time delays: 5, 10, 15, 20, or 30 minutes, Walk-through/Test Modes
- Sensitivity adjustment: High/low (PIR); variable with trim pot (ultrasonic)
- Built-in light level sensor: 10 to 300 footcandles (107.6 to 3,229.2 lux)
- Multi-level Fresnel lens provides 360° coverage
- Low-voltage, momentary switch input for manual on or off operation
- DT-300 contains an isolated relay with N/O and N/C outputs; rated for 1 Amp @ 30 VDC/VAC
- Mounting options: ceiling tile; 4" octagonal J-box, 1.5" deep
- Max DT-300s per BZ power pack: 6
  Max DT-305s per BZ power pack: 7
- Dimensions: 4.50" diameter x 1.02" deep (114.3mm x 25.9mm)
- Compatible with Wattstopper PLUS Sensor Interface Module (EN-SIM-AI/SPS-GB2-BK). See sensor installation instructions for performance considerations.
- UL and cUL listed
- Five year warranty

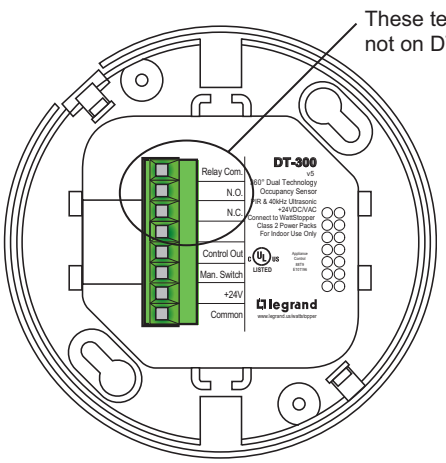
WIRING

Standard wiring with two local off switches

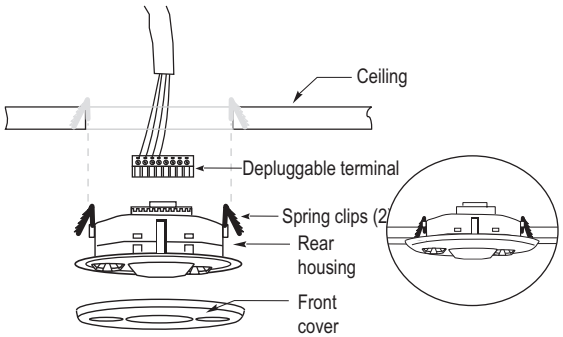


Manual-On wiring with low voltage momentary switch



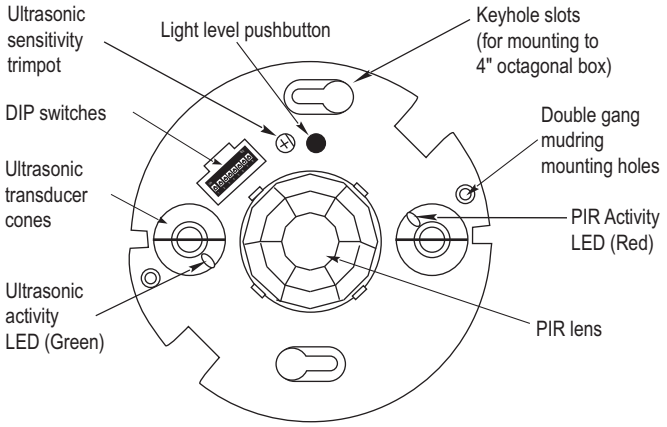


MOUNTING



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	↓ ◀	

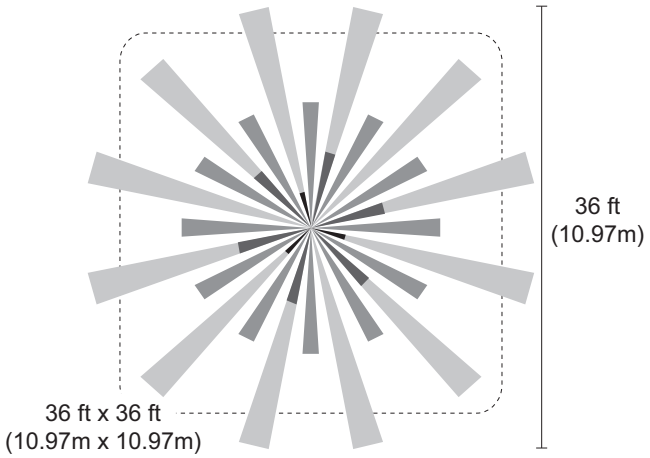
Occupancy Logic	Settings	6	7	8
	Standard	↓	↓	↓ ◀
	Option 1	↑	↓	↓
	Option 2	↓	↑	↓
	Option 3	↑	↑	↓
	Option 4	↓	↓	↑
	Option 5	↑	↓	↑
	Option 6	↓	↑	↑
	Option 7	↑	↑	↑

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 shown is maximum and represents half-step walking motion. Under ideal conditions, coverage for half-step walking motion can reach up to 1000 ft².

ORDERING INFORMATION

Catalog #		Voltage	Current	Coverage	Features
☐	DT-300	24VDC/VAC	25mA (DC)/ 74mA (AC)	up to 1000 ft² (92.9 m²	Isolated relay, light level
☐	DT-300-U				
☐	DT-305	24VDC/VAC	16mA (DC)/ 69mA (AC)	up to 1000 ft² (92.9 m²	
☐	DT-305-U				

Sensors are white and use Wattstopper power packs. Current consumption can be slightly higher when only one sensor per power pack is used.

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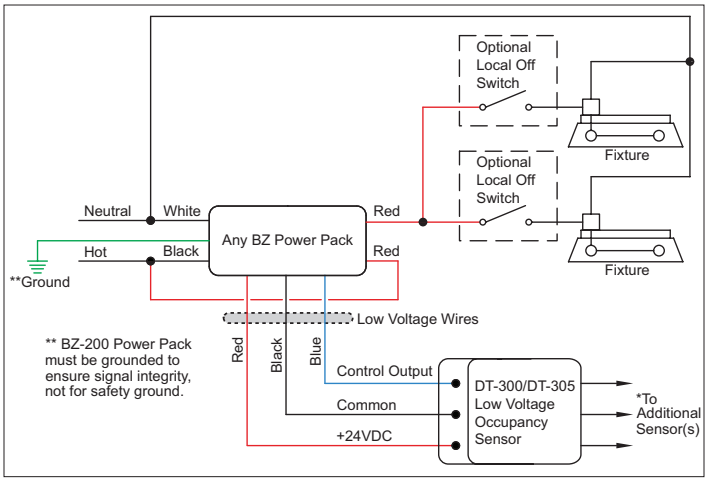
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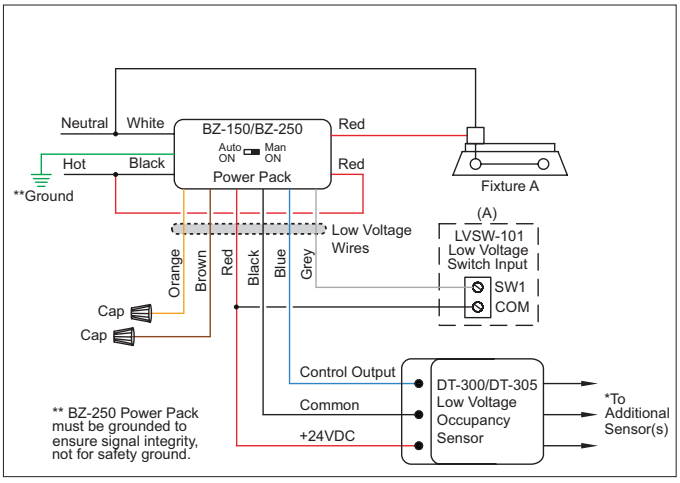
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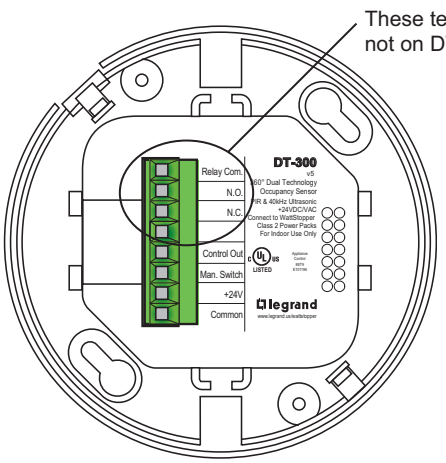
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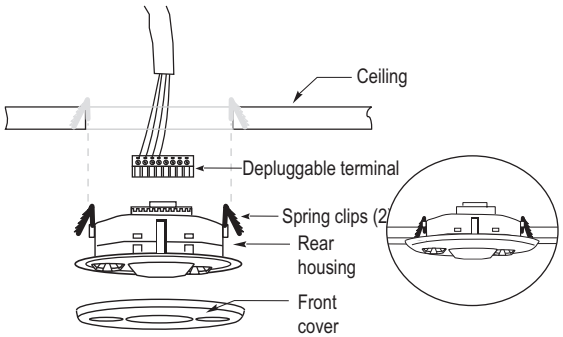


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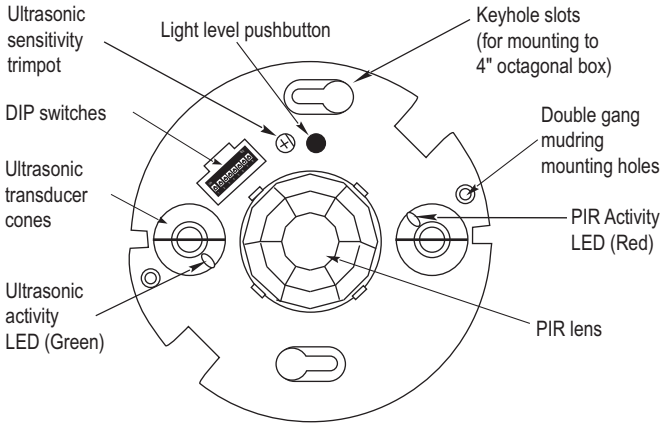


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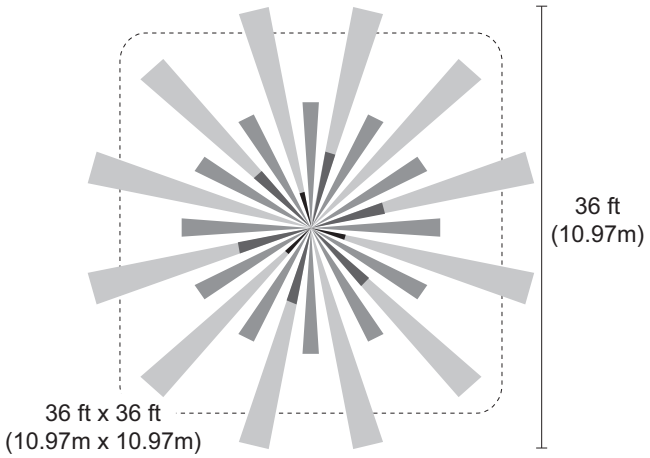
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