DT WLS 1

Dual Technology Wall Switch Occupancy Sensor

Project Name:
Location:

66220 | 66230 | 54734

DT WLS 1 Specifications

Item No.	66220 DT WLS 1-W (white) 66230 DT WLS 1-LA (light almond) 54733 DTWLS 1 - BK
Voltage	120/230/277 VAC, 50/60 Hz
Mounting	single-gang NEMA-style switch box (standard switch box) & decorator-style wall plate by others
Load Rating	0-800 watts @ 120/230/277 VAC, 50/60 Hz tungsten, magnetic or electronic ballast • 1/6 hp 0-600 watts @ 120/230/277 VAC, 50/60 Hz CFL or LED electronic ballasts C ≤ 132 µF max.
Sensing Technology	40 kHz ultrasonic & passive infrared
Time Setting	IQ/Test, 5, 15, 30 minutes
Light Level Setting	80 - 2000 lux / 8 - 200 fc
Environment	IP20 rated, 0°C to +40°C, 32°F to +104°F
Ultrasonic Coverage at 1.2 m / 4 ft Mounting Height	minor motion: max. 8 x 8 m (64 sq.m.) max. 18 x 12 ft (216 sq.ft.) radially: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.) tangentially: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.)
PIR Coverage at 1.2 m / 4 ft Mounting Height	minor motion: max. 6.5 x 5.5 m (36 sq.m.) max. 21 x 18 ft (378 sq.ft.) radially: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.) tangentially: max. 20 m (628 sq.m.) 54 ft (4,500 sq.ft.)
Dimensions	105 x 44.1 x 45.1 mm, 4.13 x 1.74 x 1.78 in, (LxWxD)
Warranty	5 years
Certifications	C-UL-US Listed, RoHS compliant, California Compliant

The DT WLS 1 is a line voltage, single relay, Dual Technology (PIR & ultrasonic) wall switch occupancy sensor intended to control lighting in commercial spaces. The combination of both technologies enhances occupancy detection in difficult applications. DIP switch adjustable technology options to initiate the load ON and maintain the load ON with either or both technologies. The hold off photocell daylight option will keep the lighting load OFF when the light level is greater than the threshold level setting. The convenient “Switch Link” feature enables up to four sensors to link together for peer to peer grouping achieving expanded detection zones and multiway switching.

Applications

The typical application is for small offices, conference rooms and break rooms. For best performance use this sensor in enclosed spaces no larger than 20’ x 16’.

Key Features:

- PIR & 40 kHz ultrasonic wall switch occupancy sensor
- Trigger mode settings enable what sensing technologies are used to initially turn the load ON and what technologies are used to keep the load ON
- Adjustable ultrasonic reach setting from 25% to 100%
- Line voltage lighting control (120/230/277 VAC, 50/60 Hz)
- 180° coverage pattern
- Manual ON or Automatic ON option
- Light level feature keeps lights off when sufficient daylight is present
- Mounts to a single-gang NEMA-style, standard switch box & decorator-style wall plate by others
- “Switch Link” communication allows for up to 4 sensors to be grouped together
- IQ Mode dynamically adjusts the ‘ON’ time delay by learning individual room occupancy
- Walk through mode option will switch the load OFF in 3 minutes if no additional detection occurs after the first 30 seconds
- Audible alert feature provides an audible warning that the load will shut-OFF in 10 seconds unless additional motion is detected
- Visible alert feature provides a momentary OFF/ON blink, warning that the load will shut OFF in 10 seconds unless additional motion is detected
- Service mode option deactivates the automated functions of the sensor and the load is only manually controlled using the ON/OFF button

DUAL TECH
Passive Infrared
Ultrasonic

21 Ft Minor Motion
54 Ft Tangential

8 - 200 fc

120 / 230 / 277 V
Line Voltage

IQ/Test, 5, 15, 30 Min

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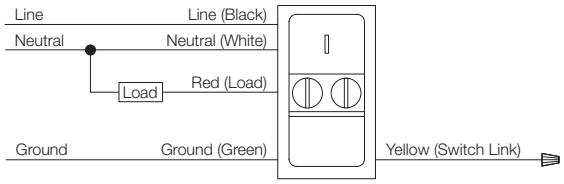
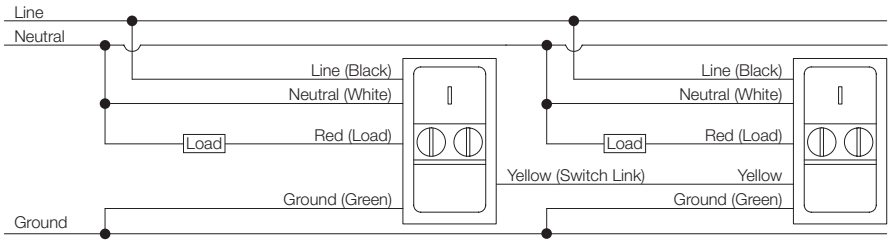
Dual Technology Wall Switch Occupancy Sensor

Wiring

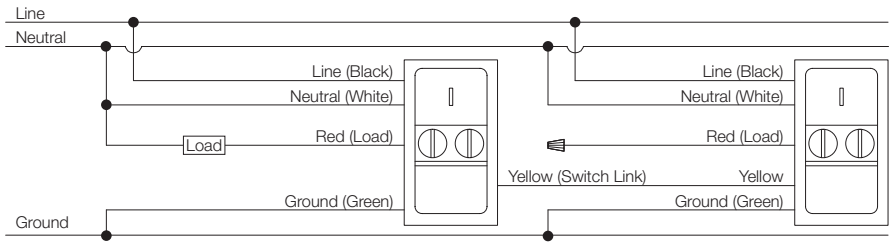
WLS 1 Basic Wiring



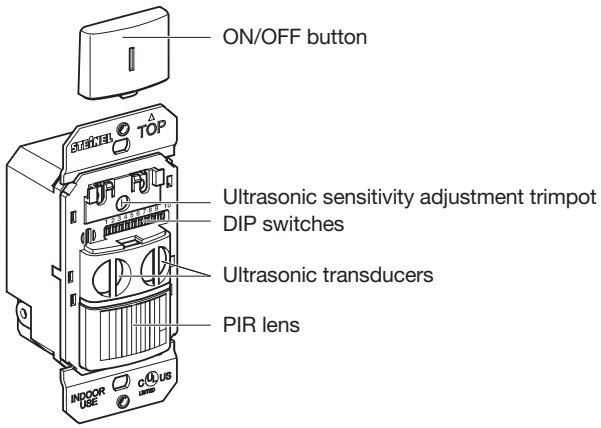
WLS 1 (Master / Master) Three-way Wiring - up to maximum 4 sensors can be grouped via "Switch Link"



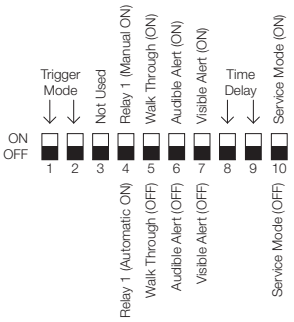
WLS 1 (Master / Slave) Three-way Wiring - up to maximum 4 sensors can be grouped via "Switch Link"



Component



Settings

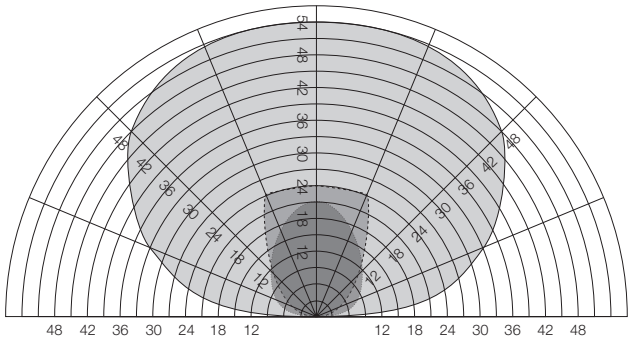


Trigger Mode	Initial Occupancy	Maintain Occupancy	Retrigger Occupancy	1	2
Factory Setting	Both	Either	Either	OFF	OFF
Option A	PIR	Either	Either	OFF	ON
Option B	PIR	PIR	PIR	ON	OFF
Option C	Both	Both	Both	ON	ON

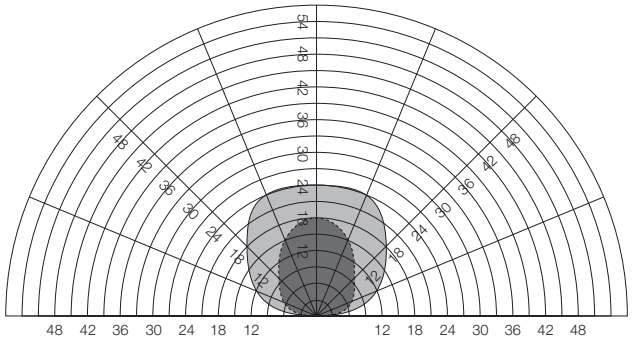
Time Delay	8	9
IQ / Test	OFF	OFF
5 Minutes	OFF	ON
15 Minutes	ON	OFF
30 Minutes	ON	ON

The sensors ultrasonic sensitivity and reach is adjusted with a trim potentiometer (dial). The left stop is minimum 25% (counter clockwise) the right stop is maximum 100% (clockwise).

Coverage



PIR Tangential Coverage
PIR Radial Coverage
PIR Minor Motion Coverage



Ultrasonic Tangential and Radial Coverage
Ultrasonic Minor Motion Coverage

Ordering Information

Model	Color	Part #	Relays	Technology	Coverage	Voltage
DT WLS 1-W	White	66220	1	PIR & 40 kHz Ultrasonic	180°	120/230/277 VAC
DT WLS 1-LA	Light Almond	66230	1			
DT WLS 2-W	White	66250	2			
DT WLS 2-LA	Light Almond	66260	2			