

# US VS DIM

## 0-10 V Dimming Ultrasonic Wall Switch Vacancy Sensor



The US VS DIM is a line voltage, Ultrasonic (40 kHz) wall switch vacancy (manual ON) sensor with 0-10 volt dimming capability intended to control lighting in commercial spaces. Ultrasonic is used where the sensor may not have a clear line of site of the occupants in the desired coverage area. Control options via smart remote include photocell force OFF or hold OFF and partial ON or partial OFF capabilities. The convenient "Switch Link" feature enables up to four sensors to link together for peer to peer grouping achieving expanded detection zones and multi-way switching.

### Applications

The typical application is for restrooms with up to two stalls and utility/storage rooms. For best performance use this sensor in enclosed spaces no larger than 15' x 15'.

### Key Features:

- 0-10 volt dimming 40 kHz ultrasonic wall switch vacancy sensor
- Adjustable ultrasonic reach setting from 25% to 100%
- Line voltage lighting control (120/230/277 VAC, 50/60 Hz)
- 180° coverage pattern
- Manual ON (Factory Setting)
- Partial ON can be adjusted from 10 - 70%
- Partial OFF can be adjusted from 10 - 50%
- Hold OFF or Force OFF light level feature
- 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
- 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
- Optional voltage barrier included to provide separation from class 1 and class 2 circuits

Project Name:

Location:

54905



54903



54904



54902



### US VS DIM Specifications

Item No.	54905 US VS DIM-W (white) 54903 US VS DIM-LA (light almond) 54904 US VS DIM-BK (black) 54902 US VS DIM-GY (gray)
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
Dimming Output	0-10 volt (purple & gray) 50mA, max 25 (1-10 electronic dimming ballasts/drivers)
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.) radial: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.) tangential: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.)
Dimensions	105 x 44.1 x 46.5 mm, 4.13 x 1.74 x 1.83 in (LxWxD)
Warranty	5 years
Certifications	C-UL-US Listed, RoHS compliant, California Compliant

40 kHz  
Vacancy

Ultrasonic  
Manual ON



18 Ft Minor Motion  
24 Ft Tangential



8 - 200 fc

120/230/  
277 V

Line Voltage

DIM

0 - 10 Volt Dimming



www.steinell.net

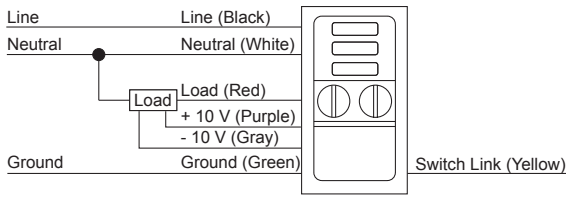
# US WLS DIM

## 0-10 V Dimming Ultrasonic Wall Switch Vacancy Sensor

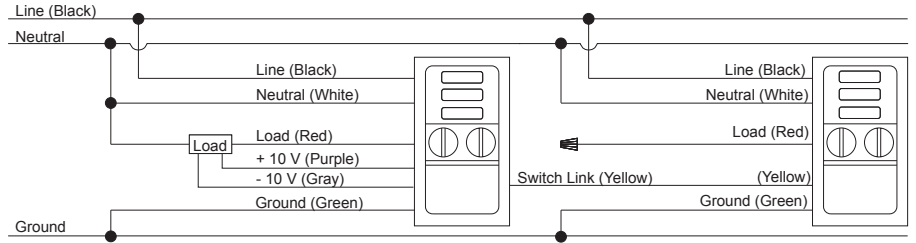


### Wiring

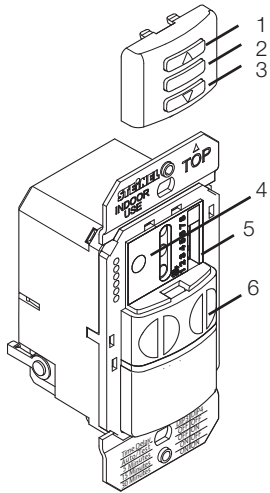
#### Basic Wiring



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

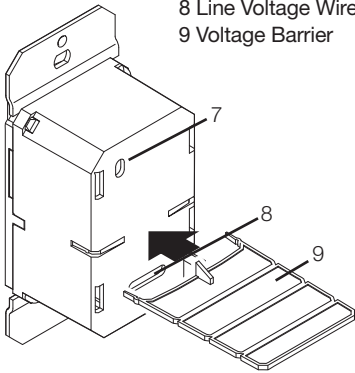


### Components

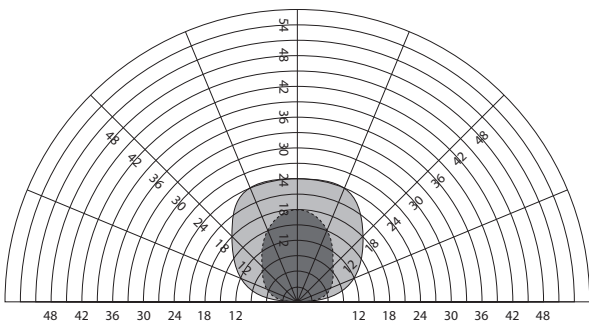


- 1 DIM Up
- 2 ON/OFF Button
- 3 DIM Down
- 4 Ultrasonic Sensitivity Adjustment Trimpot
- 5 DIP switches
  - (1-2) Not Used
  - (3-4) Time Delay
  - (5) Visible Alert
  - (6) Service Mode
  - (7) Not Used
  - (8) Walk through Mode ON / OFF
- 6 Ultrasonic Transducers

- 7 Low Voltage 0-10 Volt Dimming Wires
- 8 Line Voltage Wires
- 9 Voltage Barrier

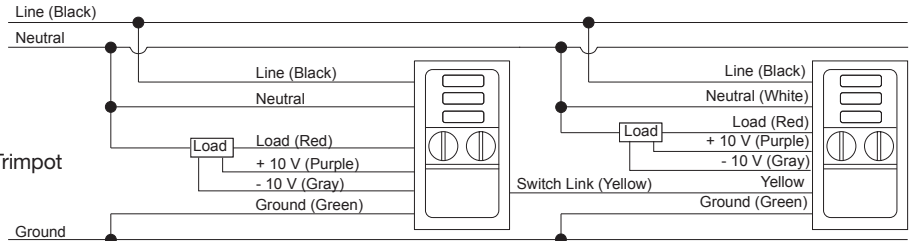


### Coverage



— Ultrasonic Tangential and Radial Coverage  
 ..... Ultrasonic Minor Motion Coverage


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



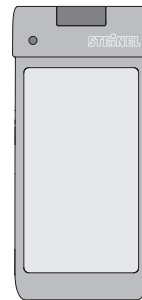
### Settings

On	Off	
<input type="checkbox"/>	<input type="checkbox"/>	∞ Walk Through
<input type="checkbox"/>	<input type="checkbox"/>	~ Not Used
<input type="checkbox"/>	<input type="checkbox"/>	∞ Service Mode
<input type="checkbox"/>	<input type="checkbox"/>	∞ Visible Alert
<input type="checkbox"/>	<input type="checkbox"/>	∞ Time Delay
<input type="checkbox"/>	<input type="checkbox"/>	∞ Time Delay
<input type="checkbox"/>	<input type="checkbox"/>	~ Not Used
<input type="checkbox"/>	<input type="checkbox"/>	~ Not Used

Time Delay	DIP 3	DIP 4
IQ / Test	OFF	OFF
5 Minutes	OFF	ON
15 Minutes	ON	OFF
30 Minutes	ON	ON

  
 min. . . . . max.  
 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%

### Smart Remote



#### Description

- Setting done by APP and universal Smart Remote
- Replaces all existing remote controls
- Connection via Bluetooth with smartphones and tablets
- iOS and Android APP
- Saving/loading of settings for easy copy & paste installation

