

LDS-700 series

Line Voltage Dual-Tech Wall Switch Sensor

WALLSENZR



OVERVIEW

The LDS-700S is a dual technology line voltage wall switch sensor in the IR-TEC's WALLSENZR family designed to fit in a standard NEMA wall box. This state-of-the-art dual-tech wall switch sensor combines digital Passive Infrared (PIR) and High Frequency Doppler (HFD) sensing technologies into an aesthetically pleasing housing to provide second-to-none occupancy/vacancy sensing based lighting control for all applications. HFD is an advanced sensing technology which utilizes super high frequency radio waves (4~12GHz) to detect the occupancy, similar to ultrasonic sensor, but without requiring the grid openings on the front.

The LDS-700S will turn ON the load automatically when it detects the presence of an occupant, and will turn OFF automatically if no motion is detected before the delay time elapses. For compliance of specific energy code, such as CA Title 24, the LDS-700S series can be easily programmed as a Vacancy Sensor. In vacancy sensing mode, the sensor will only turn ON the load by pressing the push-button manually and will turn OFF the load automatically per the sensor time delay. The LDS-700S allows for the push-button operation to be programmed with different control modes.

The sensor comes with an ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The Accu-Set digital potentiometers make delay time (TIME) and ambient light level (LUX) settings fast, easy and accurate. Patent pending Hybrid-Switching technology allows the sensor to switch on the load even with very high inrush current, such as multiple LED or CFL lights connected in parallel.

FEATURES

- **World's 1st** PIR+HFD dual-tech wall switch sensor
- Occupancy/vacancy sensor convertible operation
- Dual-tech or single HFD sensing mode switchable
- Front accessible sensor operation configurations
- No grid opening - aesthetics pleasing sensor front
- 180° F. O. V. with coverage exceeds 1,200 sq. ft.
- 4 levels of HFD sensitivity setting programmable
- Specialized lens provides vandalism protection
- Accu-Set digital potentiometer sensor settings
- Hybrid-Switching technology for HIC load control
- Screwless wall plate offers high end appearance

APPLICATIONS

IR-TEC's Dual-Tech WALLSENZR can be used for occupancy/vacancy sensing based lighting, or load controls, in a variety of spaces:

Bathrooms
Classrooms
Closets
Conference rooms
Entrances
Exit halls
Garages
Gymnasiums
Hallways

Laundry rooms
Offices
Playrooms
Restrooms
Self-storage facilities
Showrooms
Storage rooms
Utility rooms
Workshops



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OPERATION

The LDS-700S series dual-tech wall switch sensor employs Passive Infrared (PIR) and High Frequency Doppler (HFD) sensing technologies to monitor the occupancy status through an exclusive lens with 180° field of view. The sensor can be easily programmed as an Occupancy Sensor (Auto-ON, Auto-OFF) or Vacancy Sensor (Manual-ON, Auto-OFF) with different control modes via DIP switch settings and push-button operation.

1. Occupancy Sensing with ALS Control (OSAC)

When ambient light level is lower than the set threshold, the sensor will turn the load ON automatically when it detects the presence of occupant, and switch it OFF automatically if no occupant motion has been detected before the time delay elapses.

2. Occupancy Sensing with ALS & PM (OSAP)

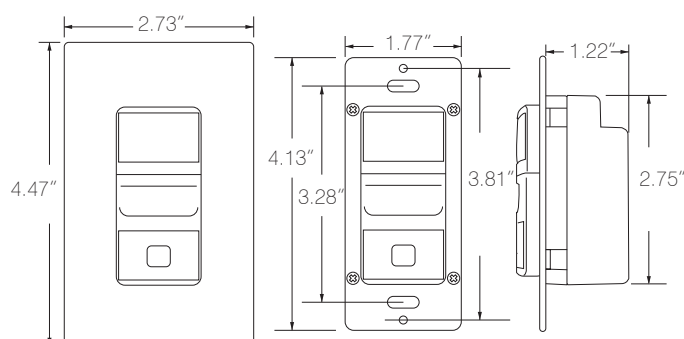
The sensor operates as in OSAC, but with Presentation Mode (PM) active.

3. Vacancy Sensing Only Control (VSOC)

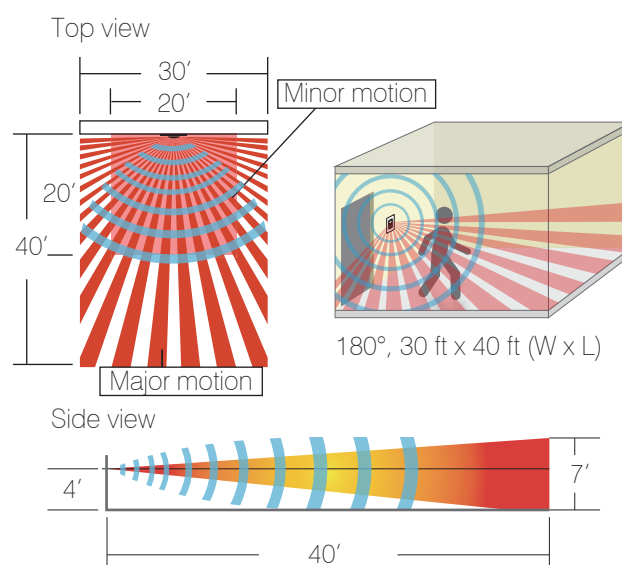
This requires occupant to press the push-button to turn ON the load, and the sensor will switch OFF the load automatically if no occupant motion has been detected before the time delay elapses. The sensor will automatically turn ON the light if it detects occupant activity within 30 seconds after time delay elapsed.

Presentation Mode allows the occupant to switch OFF the load as desired by pressing the specific push-button. The load will remain OFF if motion is detected before the time delay elapses. Pressing the push-button again will turn the load back ON and the sensor will operate as per sensor setting. If no motion has been detected and the time delay expires, sensor will return to normal operation and turn ON the load with the next sensed motion.

DIMENSIONS



DETECTION COVERAGE



SPECIFICATIONS

Power supply	120/277VAC, 60Hz
Sensing technology	Digital PIR & High Frequency Doppler
Maximum load	Incandescent/Halogen – 800W(VA) Fluorescent Ballast/CFL – 800W(VA) Ballast Electronic (LED) – 500/800VA@120/277V Motor – 1/6 HP
Inrush current	Max. 80A, 16.7 mS
Load switching	Zero-cross Hybrid-Switching
Detectable speed	1 ~ 10 ft./sec. (0.3 ~ 3 m/sec)
Mounting height	3 ~ 5 ft. (90 ~ 150 cm) above the floor
Detection coverage	Major motion - 30 ft x 40 ft (W x L) @4 ft high Minor motion - 20 ft x 20 ft (W x L) @4 ft high
Ambient light level	7 levels, from dark to 24 Hour
Delay time setting	T/1'/3'/5'/10'/20'/30', T=10 sec. for testing
Op. humidity	Max. 95% RH, non-condensate
Op. temperature	-40°F ~ 131°F (-40°C ~ 55°C)
Dimensions	4.13"H x 1.77"W x 1.65"D (w/mounting plate)

ORDERING INFORMATION

LDS-700SW – Line Voltage Dual-Tech Wall Switch Sensor, 120/277 VAC, White

LDS-700SI – Line Voltage Dual-Tech Wall Switch Sensor, 120/277 VAC, Ivory