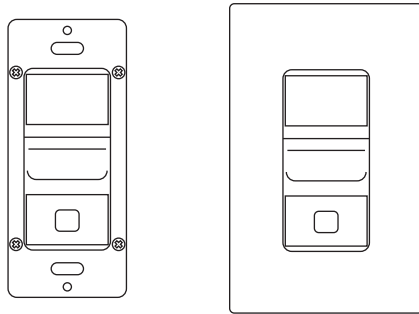


WALLSENZR

LDS-700 Series

Line Voltage Dual-Tech Wall Switch Sensor

INSTALLATION INSTRUCTIONS



Indoor dry location use only
Utilisation a L'interieur Uniquement

⚠ WARNING & CAUTION

- Risk of Electric Shock - Disconnect power supply at the circuit breaker before installing, replacing lamps, or servicing.
- DO NOT control a load in excess of specified ratings to avoid damaging the sensor or the property.
- Install and use this sensor in accordance with electrical codes and regulations.
- This device is intended to be installed by a qualified electrician. DO NOT attempt to service or repair.
- Install the sensor at least 1ft. away from any occupant.

⚠ AVERTISSEMENT & PRUDENCE

- Afin d'éviter tout risque de choc électrique ou électrocution, couper le courant au disjoncteur avant installation, remplacement des lampes ou tout service d'entretien.
- NE PAS contrôler une charge supérieure à la capacité spécifiée pour éviter d'endommager le capteur ou la propriété.
- Installer et utiliser ce capteur conformément aux codes et règlements électriques.
- Ce dispositif est destiné à être installé par un électricien qualifié. NE PAS tenter de réparer.

Federal Communication Commission Interference Statement FCC ID: ROO-MDU2000

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

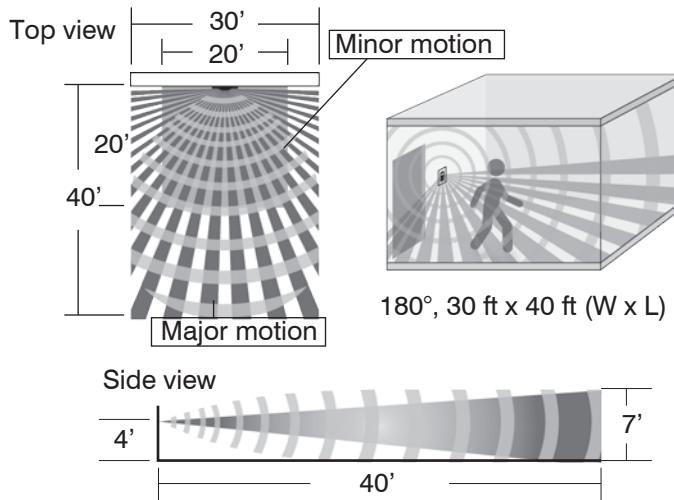
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

OVERVIEW

The LDS-700 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 for energy efficient automatic load control. This state-of-the-art wall switch sensor combines digital Passive Infrared (PIR) and advanced High Frequency Doppler (HFD) sensing technologies into an aesthetically pleasing housing to provide second-to-none occupancy/vacancy sensing performance within its 180° field of view detection range.

The sensor is factory set to turn ON the load automatically when PIR sensor detects the presence of an occupant, and will turn OFF automatically if no motion is detected by either PIR or HFD sensor before the delay time elapses. To comply with specific energy code, such as CA Title 24, the LDS-700 series can be easily programmed to operate 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 as per sensor delay time set. Various sensing operation and control modes can be achieved by different DIP switch setting combinations and push-button operations.

DETECTION COVERAGE



INSTALLATION NOTES

1. The sensor is more sensitive to the movements "crossing" the detection zones than "toward" or "away" the sensor. To obtain better sensitivity, ensure the sensor to have clear field of view for the occupant's motion within the desired coverage.
2. The closer movement is to the sensor, the more sensitive the sensor is.
3. The sensor should be mounted within the specified mounting height for optimal performance.
4. Avoid blocking the sensor with any obstacles, such as door, plant, partition or furniture. As a general rule, every occupant within the desired range should be able to clearly see the sensor.
5. Do NOT mount the sensor directly above or nearby a heat source, or where unintended motion (e.g. hallway traffic) will be "seen" by the sensor.

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 @60Hz
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)

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada statement:

IC: 10829A-MDU2000

This device complies with ISED's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



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P/N: 058-70004-005

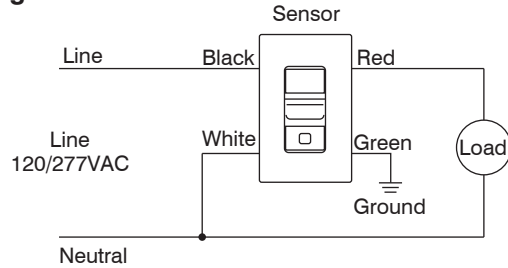
Printed in Taiwan

This product may be covered by one or more U.S. patents or patent applications. Please visit www.irtec.com for more information.

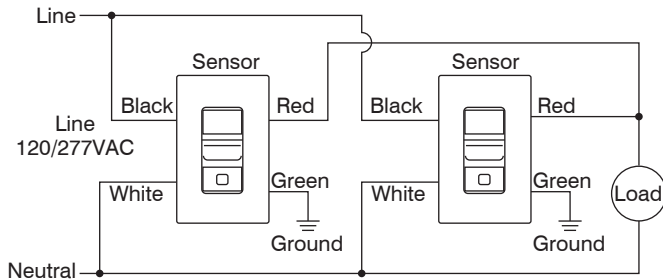


WIRING DIAGRAM

• Single-Pole Control



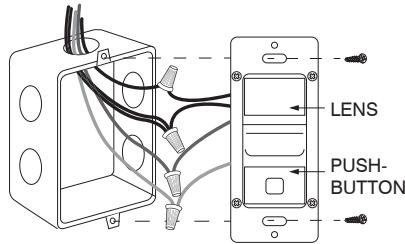
• 3-Way Control



The sensor may be available with other control options, consult a qualified electrician or contact info@irtec.com for assistance.

INSTALLATION

NOTE: Connect the GREEN wire to the GROUND for safety.



1. Ensure the power has been turned OFF at the circuit breaker.
2. Prepare the wires with proper length (cut the excessive length, if necessary) and strip for connection. Connect the sensor wires to the wires of line voltage and load according to the above wiring diagram of desired control.
3. Carefully bend the wires in the wall box after all wires are properly connected. Mount the sensor in the wall box with the screws provided.
4. Conduct sensor operation test (refer to the TESTING section). Replace the wall plate cover after sensor testing and setting completed.

OPERATION

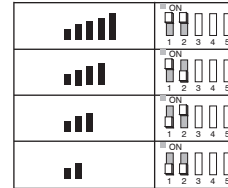
The LDS-700 series dual-tech wall switch sensor employs two different sensing technologies (PIR & HFD) to detect the occupancy/vacancy status within its coverage, and controls the connected load as per sensor setting. A dual color LED indicates the status of sensor detection, BLUE is PIR and GREEN is HFD. Pressing the push-button will change the state of relay contacts manually.

Via DIP switch setting, the LDS-700 can be programmed to adjust the HFD sensitivity, operate as a single HFD wall switch sensor, control the load as an Occupancy Sensor or Vacancy Sensor, and set the push-button operation to turn ON/OFF manually or in Presentation Mode (PM).

SETTING - DIP Switch

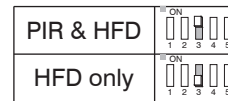
HFD Sensitivity - SW1 & 2

The combinations of DIP switch 1 and 2 determines the sensitivity of HFD sensor.



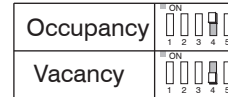
Operating Sensor - SW3

DIP switch 3 changes the operating sensor. If necessary, the LDS-700 can be programmed as a single HFD wall switch sensor.



Occupancy/Vacancy Sensor Selection - SW4

Occupancy sensor switches the light ON automatically when PIR sensor detects the presence of an occupant. The sensor will switch the light OFF automatically if no occupant activity has been detected by either PIR or HFD sensor before the time delay elapses.

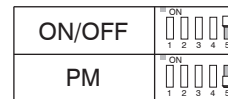


Vacancy sensor requires the user to manually press the push-button to turn ON the light. The sensor will switch the light OFF automatically if no occupant activity has been detected by either PIR or HFD sensor before the time delay elapses.

NOTE: The sensor will automatically turn ON the light if it detects occupant activity within 30 seconds after time delay elapsed.

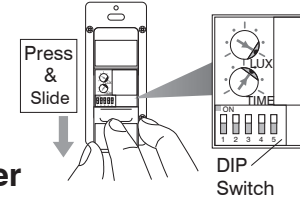
Push-button Operation Control - SW5

Pressing the push-button during occupied state will turn OFF the load of respective pole and hold OFF until the push-button is pressed again.

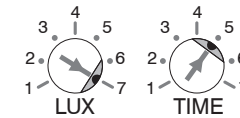


In Presentation Mode (PM), pressing the push-button will turn OFF the lights immediately, and the lights will remain OFF even if motion is detected. Pressing the push-button again will turn the light ON and the sensor will operate per its settings. If the time delay expires and no occupant activity has been detected, the sensor will return to its normal operation. The lights will turn ON with the next motion detected.

To program the sensor operation mode or change the settings, press the push-button cover and slide it down as shown.



SETTING - Potentiometer



POS.	1	2	3	4	5	6	7
TIME T	1'	3'	5'	10'	20'	30'	
LUX	10	20	35	50	100	150	24H

Factory Set

TIME - Delay time

TIME setting determines the delay time that the sensor will hold the load ON after the last motion detected. Factory setting is 10 minutes, and it can be changed by pointing the arrowhead of potentiometer to the specific position.

LUX - Ambient light level

LUX setting determines the threshold of ambient light level that the sensor will inhibit switching ON the load. The factory setting is ALS disabled (24 Hr) for testing convenience, and it can be changed by pointing the arrowhead of potentiometer to the specific position.

TESTING

1. Restore the line power for sensor operation and wait for the sensor to warm-up (GREEN LED will blink during the warm-up period).
2. Move within the desired range and observe the sensor detection. BLUE blink indicates the PIR sensor detected, and GREEN blink indicates the HFD sensor detected. Move outside of the desired range and observe if the HFD sensor can detect. If GREEN LED blinks, reducing the HFD sensitivity accordingly.
3. Replace the wall plate cover after sensor testing and setting completed.

NOTE: The connected load will be switched ON as delay time set (factory default 10 minutes) after the power applied. The delay time can be set to the shortest (10 seconds) for test convenience. **Ensure to set the TIME back to the desired delay for optimum operation after test.**