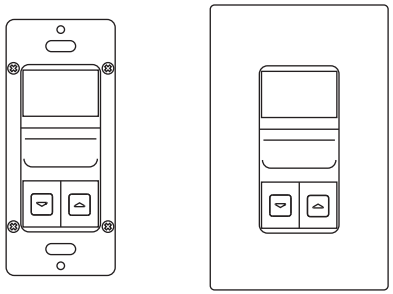
WALLSENZR

LDD-700 Series

Line Voltage Dual-Tech Wall Switch Sensor with 0-10V Dimming

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'eviter tout risque de choc electrique ou electrocution, 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.**

INTRODUCTION

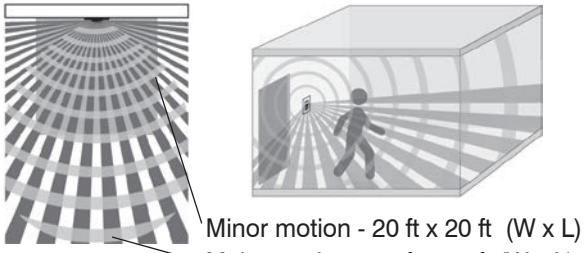
The LDD-700 is a line voltage dual tech (PIR & HFD) wall switch sensor with 0-10V dimming output that not only can automatically turn lights ON/OFF based on occupancy or vacancy sensing control, but also allow the user to manually adjust the lighting level as required.

The LDD-700 will automatically turn ON the light at set-level (factory set 100%) for a period of delay time when it detects the presence of an occupant. If no motion is detected before the delay time elapses, the sensor will turn OFF the light. It can be set as a vacancy sensor which will only turn ON the light at set-level by pressing any push-button, and then automatically control the light in the same way as above described.

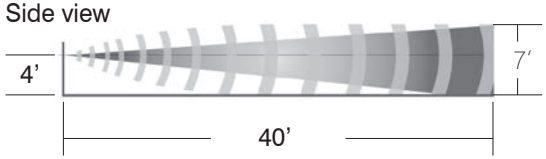
Two push-buttons allow the user to change ON-OFF status, adjust lighting level as desired, or memorize the preferred level for the next presence. Two Accu-Set potentiometers offer fast, easy and accurate settings for delay time (TIME) and ambient light level (LUX). A 5-pole DIP switch can be set to adjust the HFD sensitivity, disable the PIR sensor, operate as a vacancy sensor, and set the push-button operation control.

DETECTION COVERAGE

Top view



Side view



INSTALLATION NOTES

1. The sensor is more sensitive to the movements "crossing" the detection zones than "toward" or "away" it. To obtain optimum sensitivity, ensure the sensor to always have clear field of view for the occupant's motion within the desired detection coverage.
2. In general, the HFD sensor has better sensitivity to the minor motions than the PIR sensor. Also the HFD sensor could possibly detect out-of-sight movements through non-metallic partition or enclosure. If so, reduce the HFD sensitivity to prevent detecting the activities of adjacent areas which may result in unneeded lighting.
3. Avoid mounting the sensor behind the door, partition, plant, or furniture. As a general rule, every occupant within the desired range should be able to "see" the sensor.
4. Do NOT mount the sensor nearby a heat source, or at the place where it can "see" the unintended motions (e.g. hallway traffic).

SPECIFICATIONS

Power supply	120/277VAC, 60Hz
Sensing technology	Digital PIR & High Frequency Doppler
Maximum load	Electronic Ballast– 500/800VA@120/277V
Inrush current	Max. 80A, 16.7 ms @60Hz
Load switching	True Zero-cross Hybrid Switching
Dim control output	0-10V, ±5%, isolated, max. 25 mA
Detectable speed	1~10 ft./sec. (0.3~3 m/sec)
Mounting height	3~5 ft. (90~150 cm) above the floor
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	14°F ~ 131°F (-10°C ~ 55°C)
Dimensions	4.13"H x 1.77"W x 1.65"D (w/mounting plate)

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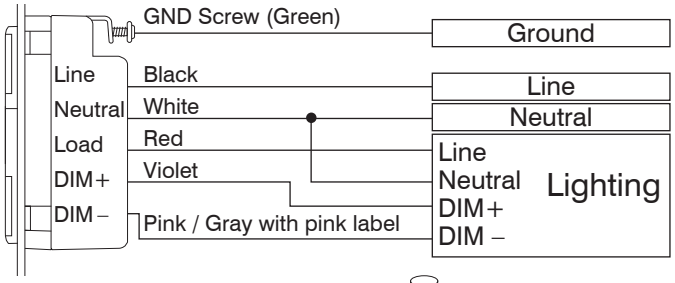
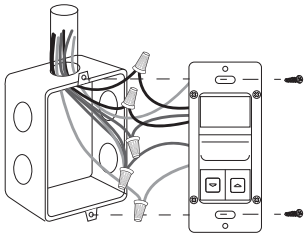
iR-TEC

WIRING DIAGRAM



NOTE:
Connect GROUND to the GND screw for safety.



INSTALLATION

1. Ensure the power has been turned OFF at the circuit breaker.
2. Prepare all wires with adequate length (cut the excessive length if necessary) and properly striped.
3. Connect the wires of sensor with line voltage power and LED driver ballast as the wiring diagram shown.
4. Carefully manage the wires to allow the sensor being mounted in the wall box with screws. **Do NOT use excessive force when installing the sensor into the wall box** as this could bend the mounting plate and affect button operation.
5. Turn the circuit breaker ON. Refer to the TESTING section and conduct sensor test if necessary. Snap-on the cover plate after sensor test and setting complete.

TESTING

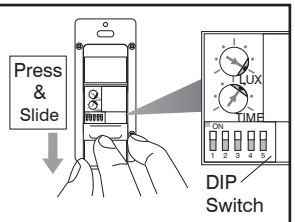
After installation complete, it is recommended to conduct sensor test as instructed below;

1. Apply power to the sensor*. Wait for the sensor to warm-up (GREEN LED will blink during warm-up period).
   *The connected light will be switched on as delay time set (factory default 10 minutes) after the power applied. To speed up the test, you may set the TIME potentiometer to position 1 (T) for shortest delay (10 seconds).
2. Walk within the desired range and observe the sensor LED indication (GREEN blinks per 2 seconds to indicate PIR detecting and BLUE blinks to indicate HFD detecting). Walk outside of the desired range and observe if the HFD sensor can detect the movement. If BLUE still blinks, reduce the HFD sensitivity via DIP switch setting accordingly.
3. Replace the cover plate after testing and setting completed.

Do NOT forget to set the TIME at the desired position for optimum delay after test.

SETTING

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



Potentiometer

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

Factory Set

• LUX – Ambient light level

LUX setting determines the threshold of ambient light level that sensor will inhibit switching on the light. Factory set is pointing at position 7 which allows sensor to switch on the light anytime. Set the arrowhead to point different positions for different ambient light level thresholds.

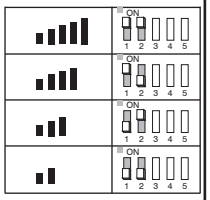
• TIME - Delay time

TIME setting determines the delay time that sensor will hold the light on after the last motion detected. Factory set is at 10 minutes and different times can be set by pointing the arrowhead to different positions. NOTE: Set at position 1 will shorten the delay to 10 seconds for 10 minutes. The delay time will resume to 10 minutes if the potentiometer has not been set to other position.

DIP Switch

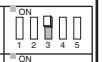
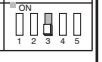
• HFD Sensitivity - SW1 & 2

4 levels of HFD sensitivity can be set through different combinations of SW1 & 2.



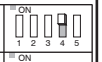
• Operating Sensor - SW3

Switch #3 determines the operating sensing technology of sensor. Setting it at OFF position will disable the PIR sensor.

DUAL	
HFD	

• Occupancy/Vacancy Sensor Selection - SW4

Switch #4 sets the LDD-700 as an occupancy sensor (factory default) or vacancy sensor (SW4 is OFF).

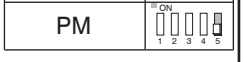
Occ.	
Vac.	

Occupancy sensor – The sensor will turn on the light when PIR detects the presence of an occupant. If no motion is detected by either PIR or HFD sensor before the delay time elapses, the sensor will turn OFF the light.

Vacancy sensor – Requires user to press any button of the sensor to turn ON the light, and if no motion is detected before the delay time elapses, the sensor will turn OFF the light.

• Button Function Control - SW5

Switch #5 determines the button function control if the sensor is set as an occupancy sensor (SW4 is ON).

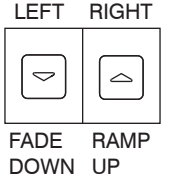
ON/OFF	
PM	

ON/OFF (Manual Override) – Pressing **ANY** push-button will turn OFF the load immediately and hold off until the button is pressed again.

PM (Presentation Mode) – If PM mode is enabled (SW5 is OFF), pressing any push-button will turn OFF the lights immediately and hold off even with motion detected. Pressing the push-button again will turn ON the lights and sensor resumes its normal control. If no occupant activity is detected before the delay time elapses, the sensor will resume its normal control which means it will turn ON the light with the next motion detected.

BUTTON OPERATION

Button operations allow the user to change the ON-OFF status, temporarily adjust the lighting level as desired, or memorize the preferred level for the next presence.



• Change the ON-OFF status

A short press on **ANY** button of an operating sensor will change the ON-OFF status of controlled lighting.

NOTE: If the sensor is set as a vacancy sensor (SW4 at OFF) and LUX is not at position 7, pressing the button will NOT turn on the light if the ambient light level is HIGHER than the threshold set.

• Adjust the lighting level

A long press on **ANY** button (>0.5 second) will enter into Manual Dimming mode.

1. Press and hold the RIGHT button will continuously ramp the lights up to the highest 100% (LED blinks in GREEN). Intermittent press will **increase** the level step by step.
2. Press and hold the LEFT button will continuously dim the lights down to the lowest 20% (LED blinks in BLUE). Intermittent press will **decrease** the level step by step.

• Memorize the preferred level

1. Press and hold **BOTH** buttons under Manual Dimming mode until sensor LED indicates in Blue continuously.
2. Release both buttons, the LED will blink for 10 seconds and sensor will save the current value as preferred level.
3. The controlled lights will flash ON and OFF for two times to indicate saving complete.