LBT-700 series

Line Voltage Wall Switch Sensor

OVERVIEW

The LBT-700 is a member of IR-TEC's WALLSENZR family of 2-pole line voltage wall switch sensor designed to fit in a standard NEMA wall box with no neutral connection required. The sensors combine state-of-the-art passive infrared sensing technology with décor aesthetics to provide optimal energy-saving for all applications.

The LBT-700 contains two relays, and two push buttons, for controlling two lighting loads or circuits independently. To comply with specific energy code, such as CA Title 24, the sensor is factory set to control the primary load (pole 1) in occupancy sensing mode, and the secondary load (pole 2) in vacancy sensing mode. A variety of control options of each pole can be programmed via DIP switch settings to meet specific energy code or customer requirements.

The model LBT-700S 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 control allows the LBT-700 series to switch ON two separate loads with high inrush current (HIC) such as multiple LED or CFL lights connected in parallel.

FEATURES

- Occupancy-Vacancy sensor changeable control
- Available with or without ambient light sensor
- Low profile, optimal décor sensor aesthetics
- 180° F. O. V. with coverage exceeds 1,200 sq. ft.
- Specialized lens provides vandalism protection
- Dual Hybrid-Switching for controlling HIC loads
- Accu-Set digital potentiometer sensor settings
- Screwless wall plate offers high end appearance
- Low cut back cover provides more wiring space
- 120/277VAC operation with no neutral required

APPLICATIONS

IR-TEC's WALLSENZR family 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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TITLE 20/24

iR-TEC Specializing in Building Sensors

LBT-700 series
Line Voltage Wall Switch Sensor

WALLSENZR

OPERATION

The LBT-700 series wall switch sensor employs passive infrared (PIR) sensing technology to monitor the occupancy status through an exclusive lens with 180° field of view. The sensor provides typical occupancy sensing (Auto-ON, Auto-OFF) control on pole 1 and vacancy sensing (Manual-ON, Auto-OFF) control on pole 2. Different control options of the LBT-700 series can be programmed through DIP switch settings. Followings are brief descriptions of the control modes available.

Ambient Light Sensing Only (ALSO)

The sensor will automatically turn ON the connected load if the ambient light is lower than the LUX level set, and turn OFF the load when ambient light is higher than the threshold.

Occupancy Sensing Only Control (OSOC)

The sensor will turn the load ON automatically whenever it detects the presence of occupant, and switch the load OFF automatically if no occupant motion has been detected before the time delay elapses.

Occupancy Sensing Only with PM (OSOP)

The sensor operates as in OSOC, but with Presentation Mode (PM) via push-button operation for specific requirement.

Occupancy Sensing with ALS Control (OSAC)

The sensor operates as in OSOC, but with the ALS to inhibit switching ON the load when ambient light level is higher than the set threshold.

Occupancy Sensing with ALS & PM (OSAP)

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

Pole One with Extended Delay (POED)

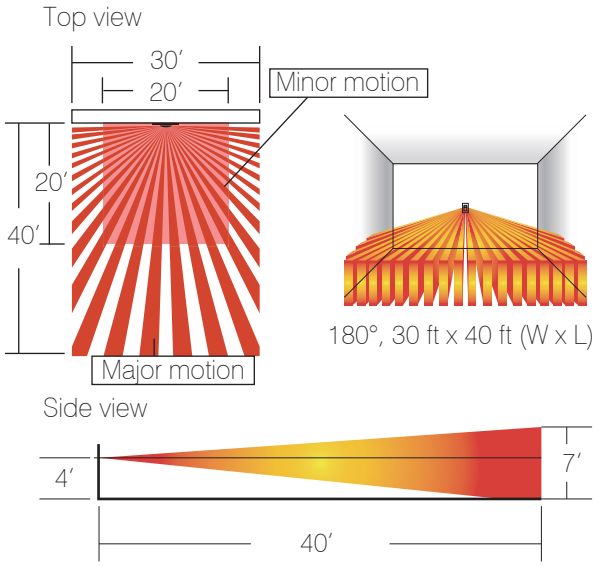
The sensor will control the load as per pole-1 set with Extended Delay (ED) for 5 minutes.

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 (PM) 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.

DETECTION COVERAGE



SPECIFICATIONS

Power supply	120/277VAC, 60Hz
Maximum load, per pole	Incandescent/Halogen – 800W(VA)
	Fluorescent Ballast/CFL – 800W(VA)
	Ballast Electronic (LED) – 500/800VA@120/277V
	Motor – 1/6 HP
Infrared sensor	Dual element pyroelectric
Inrush current	Max. 80A, 20 mS, per pole
Switching control	Zero-crossing with 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 H
	Minor motion - 20 ft x 20 ft (W x L) @4 ft H
Ambient light level	7 levels, from dark to 24Hr, LBT-700S only
Delay time setting	T/1′/3′/5′/10′/20′/30′, T=10 sec. for testing
Op. humidity	Max. 95% RH
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

LBT-700N – Line Voltage Wall Switch Sensor, 120/277 VAC
LBT-700S – Line Voltage Wall Switch Sensor, 120/277 VAC, w/ALS