

BDT-702 series

Low Voltage Dual-Tech Wall Switch Sensor



OVERVIEW

The BDT-702 is a 2-pole low voltage dual-tech wall switch sensor in the IR-TEC's WALLSENZR family designed to fit in a NEMA standard wall box. This state-of-the-art wall switch sensor combines digital Passive Infrared (PIR) and High Frequency Doppler (HFD) sensing technologies into an aesthetically pleasing housing to provide superior occupancy or vacancy sensing control for various applications. HFD is an advanced sensing technology which utilizes super high frequency radio waves to detect the object movement, similar to ultrasonic but without grid openings on the front.

The BDT-702 contains two isolated dry contact outputs, and two push button control signals, for controlling two lighting loads or circuits independently through the connected Power Packs or BMS. The sensor provides two independent momentary contact signals for Multi-way Manual Control (MMC) of the respective loads. The MMC is ideal for large area applications where may require multiple wall switch sensors and wall/ceiling mount sensors to cover the whole area, but with manual on/off control available for specific purpose. To meet compliance of specific energy code, such as CA Title 24, the BDT-702 series can be used as vacancy sensor through specific wiring with PPU-300.

The sensor comes with an ambient light sensor (ALS) to inhibit its output if ambient light level is higher than required. The Accu-Set digital potentiometers make delay time (TIME) and ambient light level (LUX) settings fast, easy and accurate. Two isolated dry contact outputs allow the BDT-702 series to control the separate loads with IR-TEC Power Packs or BMS/BAS.

FEATURES

- Cutting edge PIR + HFD dual technology sensor
- Occupancy or vacancy sensing control available
- Dual or single technology sensing mode selectable
- 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
- Multi-way Manual Control via button operation
- Screwless wall plate offers high end appearance

APPLICATIONS

The BDT-702S of IR-TEC's WALLSENZR family can be used for occupancy/vacancy sensing based lighting, or load controls, in a variety of spaces.

- Classroom
- Conference room
- Parking garage
- Grand hall
- Gymnasium
- Industrial assembly

- Laboratory
- Long corridor
- Open office
- Self-storage facility
- Warehouse
- Wide open room



BDT-702 series

Low Voltage Dual-Tech Wall Switch Sensor



OPERATION

The BDT-702 series dual-tech wall switch sensor employs a Passive Infrared (PIR) and High Frequency Doppler (HFD) sensing technologies to monitor the occupancy status through an exclusive lens with 180° field of view. Two isolated dry contact outputs will be engaged to control the loads separately through the power pack connected. Two independent momentary contact signals can be connected with the respective power pack to provide multi-way manual on/off control. The sensor can be programmed to control pole 1 as occupancy or vacancy sensor, and pole 2 with extended delay as pole 1 or automatic ambient light sensing control.

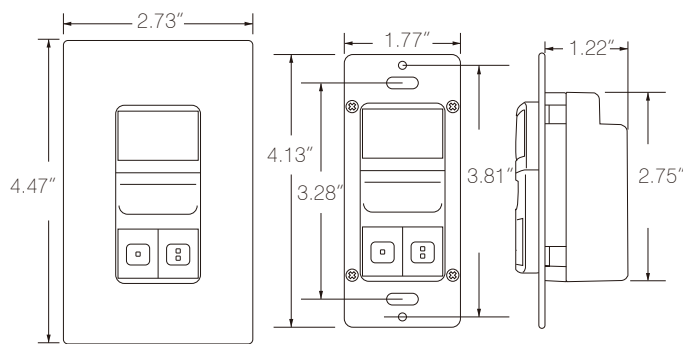
1. Occupancy Sensing Control (Auto-ON, Auto-OFF)

Occupancy sensing control switches the light ON automatically when it detects the presence of an occupant. The sensor will switch the light OFF automatically if no occupant activity has been detected before the time delay elapses.

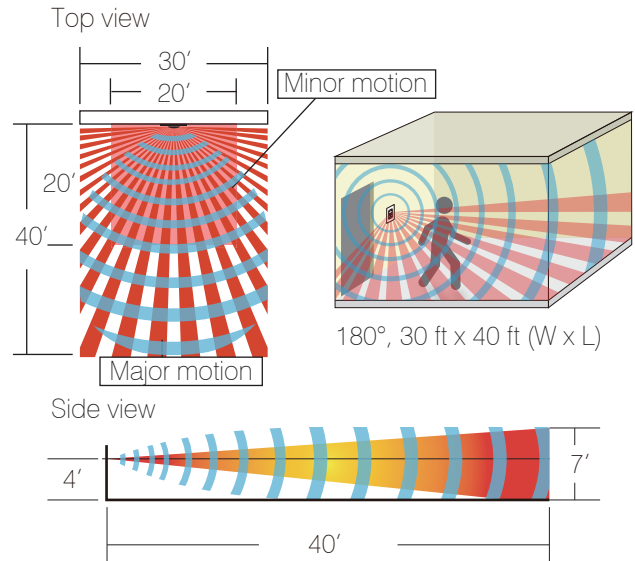
2. Vacancy Sensing Control (Manual-ON, Auto-OFF)

Vacancy sensing control 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 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

DIMENSIONS



DETECTION COVERAGE



SPECIFICATIONS

Power input	12~24VDC
Current drain	10/40 mA, 24VDC @vacant/occupied
Sensing technology	Digital PIR & High Frequency Doppler
Control output	2 x Form A dry contact & Active low
Contact rating	Max. 2A @30VDC per pole
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 Hr.
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

BDT-702SW – Low Voltage Dual-Tech Wall Switch Sensor, 12-24VDC, w/ALS, White

BDT-702SI – Low Voltage Dual-Tech Wall Switch Sensor, 12-24VDC, w/ALS, Ivory