Occupancy Sensor Management Plan

Project Concept:
An occupancy sensor, also known as a motion sensor, can detect the presence of occupants in a room. When someone enters a room, the occupancy sensor automatically turns on the lights. When the person leaves, the occupancy sensor shuts off the lights. This saves money, energy, and time, as building occupants no longer have to worry about turning lights on and off and energy is no longer wasted when people forget to turn off lights. Occupancy sensors can be especially helpful in office settings where people are moving in and out of the room and do not always think to turn the lights off.

At the Police Station, 4 occupancy sensors were installed in the Chief's office, Judge's office, and officer sitting area. At City Hall, 2 occupancy sensors were installed in the City Attorney's office and entryway.

Location:
Red Lodge City Hall
1 South Platt
Red Lodge, Montana

Installed Items:
5 Leviton Single Pole Occupancy Sensors IPS06-1LW
1 Leviton Dual-Tech Occupancy Sensor OSSMT-MDI

Installer Information:
HMH Electric, Micah Hoffman
PO Box 42
Red Lodge, MT 59068
(717) 688-4753 micah@hmhps.net

Funding:
The City purchased and installed the Police Station Occupancy Sensors for a total of $500. Funds were pulled from the EnergyCorps Sustainability Coordinators allotted budget. The The City Attorney's Occupancy Sensors were purchased and installed for a total of $131.81. Funding was pulled from the City Attorney's allotted budget.

Warranty:
Leviton offers a 5 year limited warranty on their Occupancy Sensors. HMH Electric offers a 1 year labor warranty from the install date, which was March 9, 2019 for the Police Station and March 16, 2019 for City Hall. See the attached warranty for more information.

Monitoring Usage:
NorthWestern Energy Account Number: 713550-2

City Hall and the Police Station where the occupancy sensors were installed is on the meter listed above. A monitoring spreadsheet has been developed that will allow the City to track the energy and cost savings accrued due to this investment.

The monitoring spreadsheet is available online via Google Sheets and can be found at the link below:
https://docs.google.com/spreadsheets/d/1CeURahN9N6A2k_hIGF48MQIj2EpFrCUSh5WjvwlVe28/edit?usp=sharing

Community Impact:
The City will see monetary savings from this project. The occupancy sensors will also decrease the amount of energy used and lessen the amount of greenhouse gases that City Hall and the Police Station emit.

Maintenance Plan:
Occupancy sensors require essentially no maintenance once installed. The timers on the occupancy sensors can be easily adjusted by removing the cover plate. Should a problem arise, the installer could return and address any issues.

IPS06-1LW

Occupancy Sensors

Brand Features

Leviton’s IPS06 Occupancy Sensor combines state-of-the-art technology with new aesthetics to provide optimal management of lighting loads. These energy-saving sensors are engineered to control current LED and Incandescent/Halogen loads and ensure that lights will turn ON automatically and turn OFF automatically when motion is no longer detected within the covered range. Designed to fit in a standard wallbox, the device offers 180° Field of View and 900 sq. ft. of coverage.
The IPS06 has screw terminals for easy installation and does not require a neutral wire for connection. The devices feature a time delay setting which allows users the option to delay the light load from switching off for 30 seconds, 5 minutes, 15 minutes or 30 minutes. For example, closet lighting would ideally be set to turn OFF 30 seconds after the space is vacated.
The IPS06 is single pole or 3-way, and is compatible with <u>screw-based</u> LED, Incandescent and Halogen loads.

Item Description

Occupancy/Motion detector, 180 Degree PIR Wall Box Sensor, 150W LED 600W Incandescent/Halogen, Single Pole and 3-Way, White, Wallplate/Faceplate not included.

UPC Code: 07847759050

Country of Origin: China

Features and Benefits

- Automatic-ON/Automatic OFF operation for seamless energy management
- Low-Profile design eliminates an obtrusive "scanning device" look. Elegant styling compliments any interior and coordinates with Leviton's popular line of Decora® wiring devices
- 180 degree field-of-view provides approximately 900 square feet of coverage suitable for bathrooms, basements, garages, utility rooms and a variety of other residential areas
- Convenient push-button provides Manual OFF light switching at any time
- Segmented lens provides optimum sensitivity and performance. It is designed with an extensive "minor motion" area where even slight body movements will be detected
- Four optional manual adjustments for delayed-OFF time settings maximize energy savings: 30 seconds (for walking test), 5 minutes, 15 minutes and 30 minutes
- LED Indicator Light flashes when sensor detects motion to verify detection is active
- Fits in standard wallbox and replaces single-pole wall switch
- Neutral wire not required, suitable for retrofit and new construction applications
- Five-Year Limited warranty

SPECIFICATION SUBMITTAL

JOB NAME:	CATALOG NUMBERS:	
JOB NUMBER:		

Leviton Manufacturing Co., Inc.
201 North Service Road, Melville, NY 11747
Telephone: 1-800-323-8920 · FAX: 1-800-832-9538 · Tech Line (8:30AM-7:30PM E.S.T. Monday-Friday): 1-800-824-3005

Leviton Manufacturing of Canada, Ltd.
165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 · Telephone: 1-800-469-7890 ·
FAX: 1-800-824-3005 · www.leviton.com/canada

Leviton S. de R.L. de C.V.
Lago Tana 43, Mexico DF, Mexico CP 11290 · Tel.: (+52)55-5082-1040 · FAX: (+52)5386-1797 · www.leviton.com.mx

Visit our Website at: www.leviton.com
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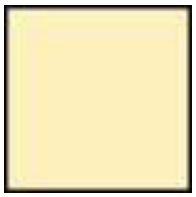
Leviton has a global presence.
If you would like to know where your local Leviton office is located please go to: www.leviton.com/international/contacts/

PRODUCT SPECIFICATIONS / INFO

Trade Price: $81.34 E

Color: Ivory



OSSMT-MDI

Description

Product Line: OSSMT, Technology: Multi-Technology PIR/Ultrasonic, Switch Type: Single-Pole, Mounting: Wall Switch, Device Type: Occupancy Sensor, Coverage (Sq.Ft.): 2400 Sq. Ft., Pattern: 180°, Color: Ivory, Warranty: 5-Year Limited

UPC Code: 07847727938

Product Features

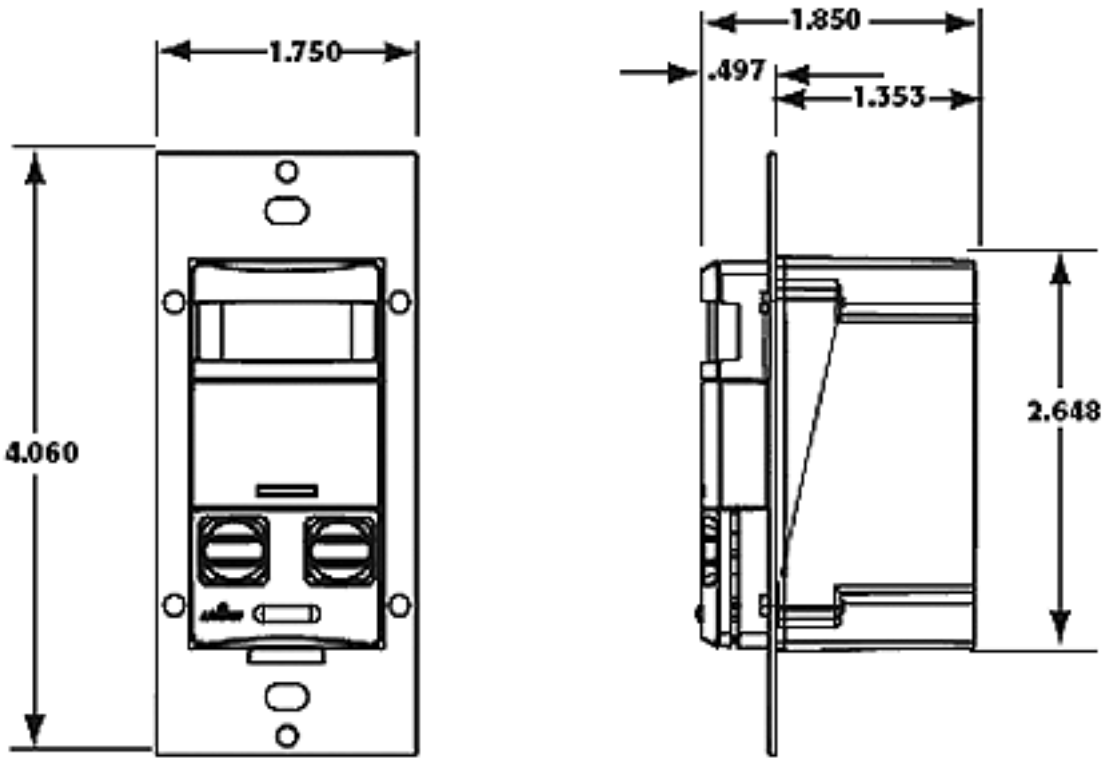
Product Line:	OSSMT
Technology:	Multi-Technology PIR/Ultrasonic
Switch Type:	Single-Pole
Mounting:	Wall Switch
Device Type:	Occupancy Sensor
Grade:	Commercial
Coverage (Sq.Ft.):	2400 Sq. Ft.
Pattern:	180°
Mounting Height (Ft.):	4 Ft.
Adjustment:	Self-Adjusting
Time Delay:	30s-30m
Voltage:	120/277 Volt AC 60Hz
Load Rating:	800W@120V INC 1200VA@120V 2700VA@277V FL
Motor:	1/4 HP @ 120V
Power Pack:	External Power Pack Not Required
Consumption (mA):	N/A
Photocell:	Internal
HVAC Relay:	N/A
Operating Temperature:	0C to 50C
Storage Temperature Range:	-10°C to 85°C
Relative Humidity:	20% to 90% non-condensing
Neutral Wire Connection:	Required
Color:	Ivory
LED Color:	Green and Red
Wallplate:	Order Separately
Standards and Certifications:	UL/cUL
Code Compliance:	California Title 24
Size:	4.06" H x 1.75" W x 1.85" D (103.2mm x 44.4mm x 47.2mm)
Warranty:	5-Year Limited

Features and Benefits

- Exclusive dual PIR design provides unmatched range and small motion detection.
- Self-Adaptive Technology: callbacks for adjustment are eliminated. Time delay and sensitivity settings are continually adjusted to occupant patterns of use in auto adapt mode.
- Exclusive Walk-through Feature: provides increased energy savings by not leaving the lights ON for an extended period after only momentary occupancy.
- Maximum Reliability, Low Cost: All digital circuitry uses a minimum of components.

- Convenient Push-Button: Provides manual ON/OFF light switch at any time.
- Fast, Simple Installation: Fits in a standard wall box and replaces a single-pole wall-switch; neutral and ground connection required. Sensor can be ganged together with other units in a multiple-switch wallplate.
- Adjustable Horizontal Field of View (PIR): May be adjusted between 180 degree and 32 degree of arc by using integral blinders located on either side of the lens.
- Optional Manual Adjustments for Delayed OFF Time Settings: Allows customized adjustments to maximize energy savings.
- Ambient Light Recognition: Integrated photocell prevents lights from turning ON when the room is adequately illuminated by natural light.
- Small Motion Sensitivity (US): The ultrasonic technology provides excellent small motion sensitivity.
- True Zero-Cross Relay: Switches at the zero crossing point of the AC power curve to ensure maximum contactor life and compatibility with electronic ballasts.

Packaging Specifications	
Standard Pack	10
Inner Pack	0
Unit Pack	BOXED
Carton Length	11.75
Carton Width	6
Carton Depth	5.25
Cube	.21
Carton Weight	3.8



SPECIFICATION SUBMITTAL

JOB NAME:	CATALOG NUMBERS:	
JOB NUMBER:		