



Wireless
Wall-mount
PIR Sensor



Power Pack
0-10V
Dimming Module



Daylight
Sensor



Wireless
Control Dimmer

You can save up to 60% of lighting electricity usage with this wireless smart control system.

The wireless system consists of transmitting device that send out RF commands to the load controllers. Then the load controllers perform the corresponding action based on the commands received.

This system include :

1.Power Pack 0-10V Dimming Module:

Which control load according to radio frequency (RF) command sending from sensor or dimmer.

2.Wireless PIR Occupancy / Vacancy Sensor:

Which detect heat from people movement to see if the space is occupied, then send wireless command to dimming module to control the light on/off/dim automatically.

3.Wireless daylight harvest sensor:

Which measure light in the space, then wirelessly transmits the light level to the associated dimming module that automatically control the lights to balance light level in the space.

4.Wireless manual controller:

Which can be used to manually turn on/off and dimming up/down lights .

What are the benefits to use this system ?

To distinguish from other traditional sensing control products in the market , with our wireless system , you can :

1. Extremely **reduce overall labor and cabling cost** due to wireless communication .
2. Greatly **reduce the equipment cost** , for example there are 10 lights in an office , you need to buy and install 10 wired sensors , but with our system , only need one or two dimming module (load up to 10 Amp) + one PIR sensor + one Daylight sensor to have both occupancy and daylight harvest function .
3. Highly **enhance the stability** of control system and **reduce the maintenance cost** in the future .
4. No damage to light surface to install the sensors , wireless system can be used for any kinds of lights , **without considering light structures** .
5. **Different energy-saving strategy** is recommended for different using situation .
6. **Quick payback** according to TITLE24 USA .

Note:

1. You will need to have one 0-10V dimming module + at least one wireless transmitter PIR sensor / daylight sensor / dimmer + 0-10V LED driver to control the system .
2. All wireless transmitters are battery powered , sending RF command , wireless communication range up to 30 m .

Energy-saving control strategy

How to design your energy-saving system ?

The appropriate control solution is defined by the needs of the space and occupants.

Follow the steps to design an ideal solution

STEP 1 Is occupancy / vacancy sensing required ?

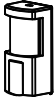


STEP 2 Is daylight harvesting required ?

STEP 3 Is manual control required ?

STEP 4 Decide the parameters according to practical condition
- such as Timeout , Dimming level , Sensitivity .

STEP 5 Decide the component quantity needed according to the area of space .

IMPORTANT : Below is a very useful form recommended for you to make decision .

Model	Picture	Component	Private office		Public Bathroom	Walk Way	Public Office	Classroom
BMS401		PIR Occ/Vac Sensor	YES	Timeout: 30min Dimming: off Sensitivity: 100%	10min 10% 100%	5min 10% 100%	30min off 80%	30min off 80%
BDS401		Daylight Sensor	YES		Optional	Optional	YES	YES
WP401		Wireless Controller	YES		Optional	Optional	YES	YES

Daylight sensor is unneeded for space lack of natural light

Wireless controller is for manually turning on/off and dimming lights anywhere in the space

Specification

Power Pack 0-10V Dimming Module



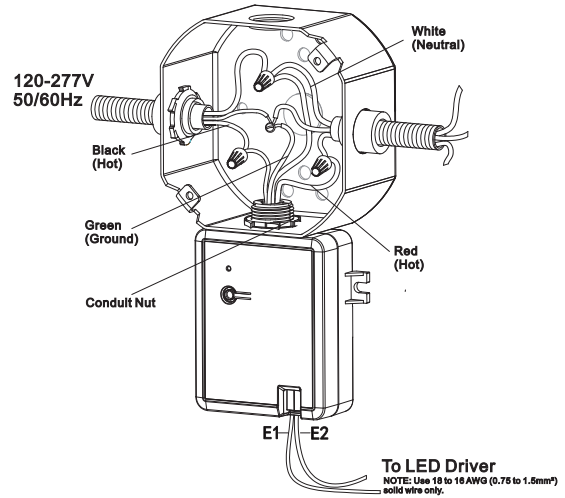
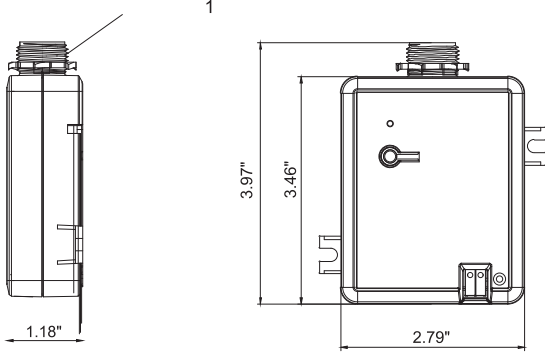
Mounts through standard knockout on electrical box without moving any previous wire .

You can save up to 60% of lighting electricity usage with this wireless smart control system.

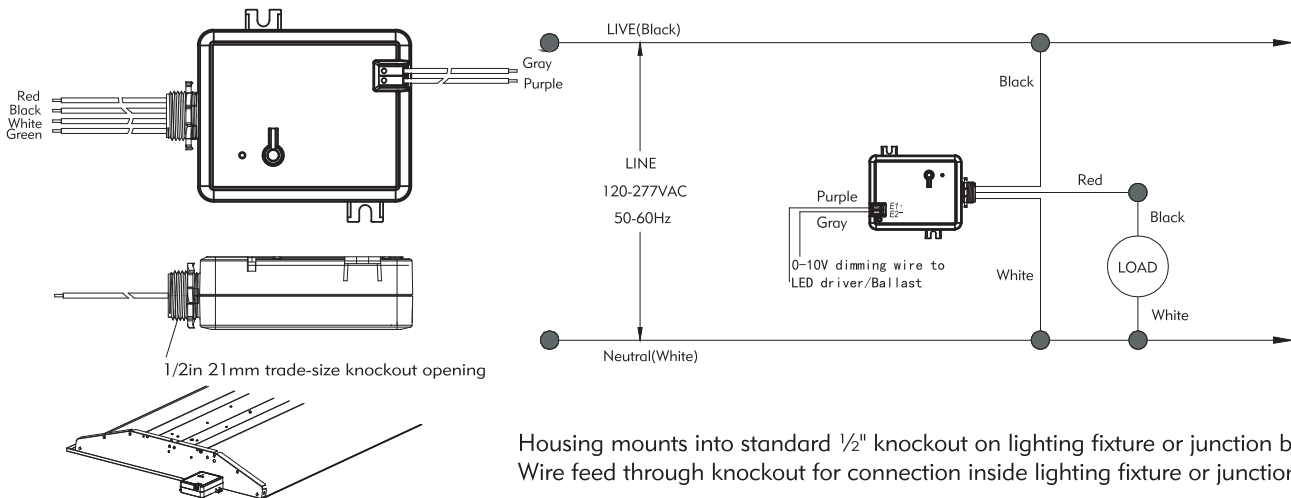
Model Number	Voltage	Standby Power	Max. Current	Max. Power	Frequency Band	RF Range	Environment
PPA401S	120V/277V 50~60Hz	0.6W	10A	1200W	443.92Mhz	30m	Indoor use

Dimension

1/2" in 21mm trade-size knockout opening



Wiring Schematic



Housing mounts into standard 1/2" knockout on lighting fixture or junction box. Wire feed through knockout for connection inside lighting fixture or junction box.

Wireless PIR Occupancy / Vacancy Sensor

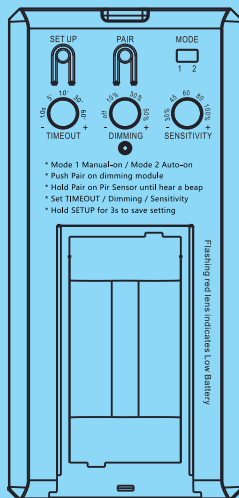
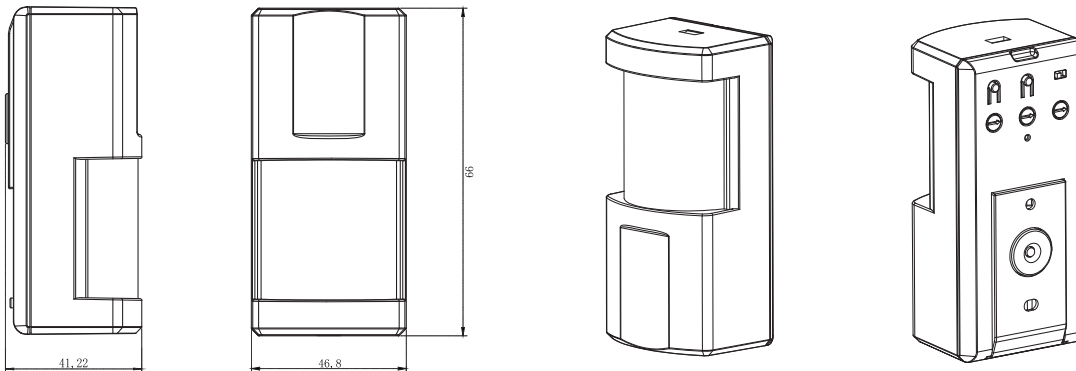


Mount sensor to have a best unobstructed view of the whole room , far away from hot object .

Setup easily on surface buttons

Model Number	Voltage	Standby Current	Battery Life	Frequency Band	RF Range	Field-of-view	Detect Distance
BMS401	3V	2.5uA	5-year	443.92Mhz	30m	120°	4m-15m

Dimension



Quick Setup:

Chose Mode 1 Occupancy mode : light need to be manually switched on with manual controller , delay time 30min , automatically off if no people detected in 30min . This mode is usually for meeting room .
 Mode 2 Auto-on : Light automatically on once detect people , automatically off or go down to dimming level after people leave .

1. Push PAIR on Power Pack 0-10V dimming module , the small led on dimming module will flash quickly .
2. Push PAIR on PIR sensor for 3s.
 You will hear a beep indicate the sensor has linked with the dimming module.
3. Set Timeout: 10s (as test mode) 5min 10min 30min 60min.
 Set Dimming level: Off 10% 30% 50% .After people leave , light will off or dim to this level automatically.
 Set Sensitivity: 30% 45% 60% 80% 100%.
4. Hold SETUP for 3s to save setting , small led light on sensor flash twice indicate set up .

Note: Every time you change settings , DO remember to HOLD SETUP for 3s to save .

Flashing red lens indicates Low Battery / Customized default setting is available

Default Setting :
 Timeout : 10min
 Dimming : Off
 Sensitivity : 100%

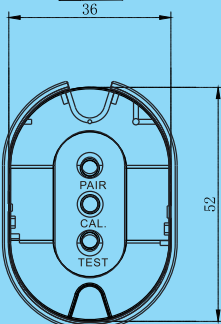
Wireless daylight harvest sensor



Balance and dim the light in response to available daylight .

Surface mount near the window facing the sunlight , far away from strong electrical lights .

Model Number	Voltage	Standby Current	Battery Life	Frequency Band	RF Range	Light Range
BDS401	3V	2uA	5-year	443.92Mhz	30m	0 to 1000 lux



Quick Setup:

1. Push PAIR on Power Pack 0-10V dimming module, the small led on dimming module will flash quickly .
2. Push PAIR for 3s on Daylight Sensor.
You will hear a beep indicate the sensor has linked with the dimming module.
3. Set lights in room to desired light level with manual controller.
4. Push CAL. to calibrate the daylight sensor .

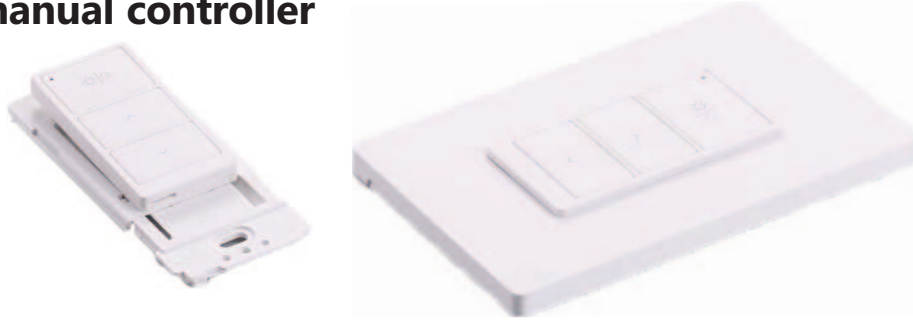
The sensor will collect the Current Light Level in room , and dim the light according to this level you calibrate . When you push CAL. , please do not point the transparent hole to strong light or very dark place , it may collect wrong light level . Find a place where is about 1-2m away from window with proper light level you want, point the daylight sensor (the transparent hole side , and don't cover the hole) to window with proper daylight , then push CAL., small green led flash .

5. Push TEST to enter into test mode, the white led light of the sensor will flash to indicate test mode .
Cover the sensor to see if the lights in room dim up , shine the sensor to see if lights dim down . It takes about 10 seconds to dim , if the performance is not that good , repeat last step to CAL. another light level .
6. After calibration , hold TEST for 3s until two small leds (green and red) on sensor flash once to quit test mode .Important , or battery will power off very soon.

After quitting test mode , the sensor will not react and dim lights quickly as test mode .

Because sun light changes very slowly , so the sensor is designed to react half an hour , so as to guarantee the battery life .

Wireless manual controller

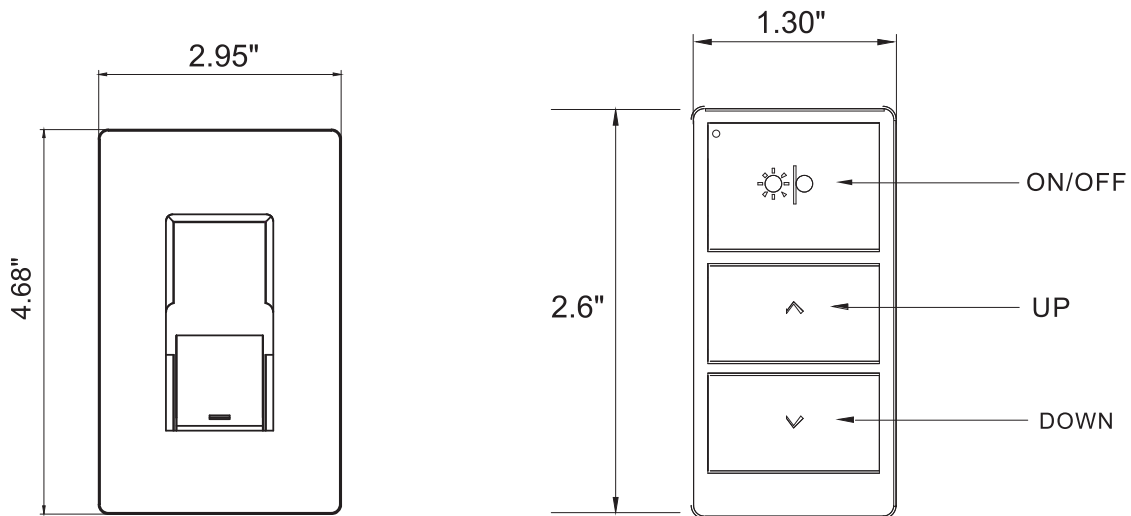


Manually turn on/off and dim lights anywhere in the space

Easy configuration for use as a handheld control or wall-mount control

Model Number	Voltage	Standby Current	Battery Life	Frequency Band	RF Range
WP401	3V	<1uA	10-year	443.92Mhz	30m

Dimension



Quick Setup :

1. Push PAIR on Power Pack 0-10V dimming module
2. Push ON/OFF button for 3s to PAIR with dimming module
You will hear a beep indicate the controller has linked with the dimming module.
3. Try the buttons to see if light is successfully controlled