Ceiling Mount PIR Occupancy Sensor Switch
(DC Power Supply)

Model #: BRT-320

Features:

BRT-320 is a ceiling mount occupancy sensor switch which utilizes passive infrared (PIR) sensor to detect the heat (in the form of infrared energy) from people moving within a space. It can determine when a space is occupied and turns on or turns off the loads automatically. It has an advanced micro controller unit and uses a proprietary signal processing technique to avoid false triggers.

- Instant on and adjustable delay off time from 2 minutes to 60 minutes;
- Ambient light override. Automatically measures the ambient light level, and there is no trigger on when it is above a light level which can be set by the user;
- Easy installation onto the ceiling with or without a holder;
- Good for 24V DC loads;
- ABS-V0 flame resistance material; and
- High quality build.

Fig. 1 and Fig. 2 show the front view and the back view of the BRT-320 PIR occupancy sensor switch respectively.

Fig. 1 Front View

Fig. 2 Back View

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Specification Parameters:

Input Voltage	24VDC	Operation Environment	No-condensation 20-90% RH，-20℃～40℃
Wattage	200W	Working Range	5m to 7m in diameter when mounted at a height of 2.4m
Mounting Hole Diameter	68mm	Dimension (max)	Oval faceplate: 105mm Circular faceplate: 77mm
Weight	115g		

Wiring Diagram:

BRT-320 occupancy sensor switch is powered by 24V DC supply:

In+: Coming from the positive of power supply;

In-: Coming from the negative of power supply; and

Load wires: Going to the load.

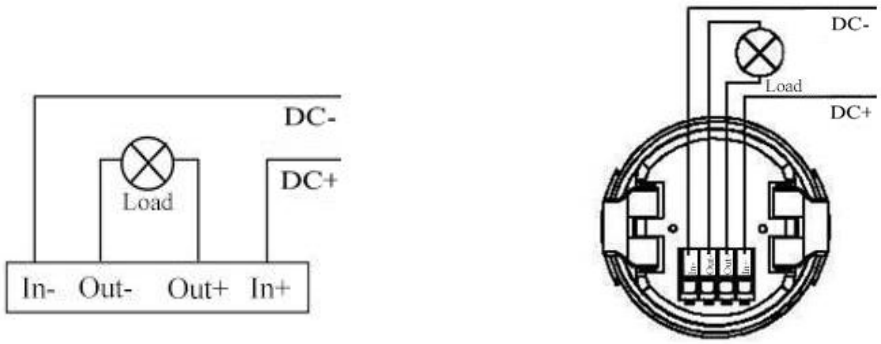

Fig. 3 BRT-320 Wiring Diagram

Fig. 3 shows the wiring diagram. Wiring must be done according to the diagram and the labelled ports of the switch.

Installation Guide:

There are two ways to install BRT-320 PIR sensor switches to the ceiling. Fig. 4 and Fig. 5 show the step-by-step installation instructions, respectively.

Cautions:

Avoid mounting the sensor switch close to air vents, as the vibration and air flow can reduce the effectiveness of the sensor switch;

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1. Installation using a holder

As shown in Fig. 4, a holder is attached to the ceiling using screws first. Then, the PIR sensor switch can be easily snapped into the holder.

The holder is specially designed for BRT-320 sensor switch. Please talk to our sales representative wh

Fig. 4 Installation with a Holder

2. Installation without a holder

As shown in Fig. 5, without a holder, an opening in the ceiling needs to be made first. There are four steps:

Step one: Open a hole of 68mm in diameter in the ceiling;

(Attach the electrical wires as shown in the Wiring Diagram Fig. 3).

Step two: Open the two flexible clamps on the side surface of the sensor switch;

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Fig. 5 Installation without a Holder

Operation Guide:

BRT-320 PIR sensor switch needs a warm-up time about two minutes before it can operate properly. It has dip switches to adjust the delay off time, and has a precision tuning screw to adjust the ambient light override threshold, as shown in Fib. 6.

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Fig. 6 Dip Switches and Fine Tuning Screw

As shown in Fig. 7, please rotate the front cover counter-clockwise to remove it so that the dip switches and the fine tuning screw are exposed.

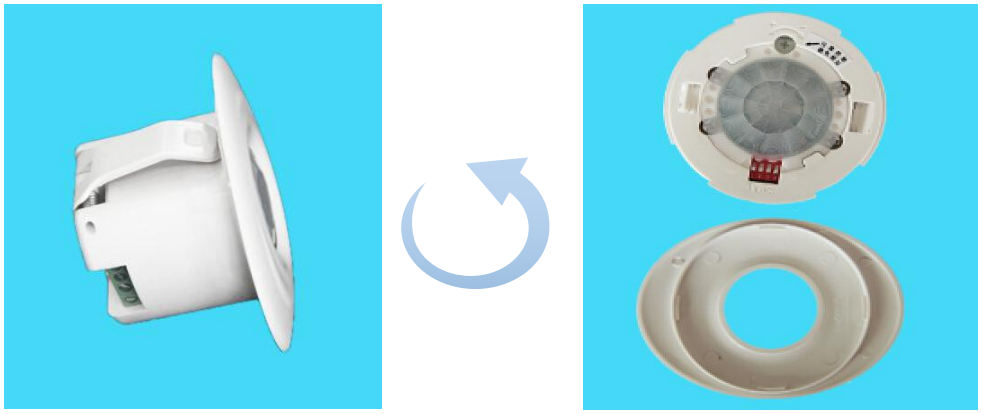

Fig. 7 Removing the Front Cover

1. Adjust the delay off time

The 4 dip switches are used to set the delay off time to 8 settings based on different combinations. Fig. 8 shows all the dip switches are in "off" positions. Each combination corresponds to a delay off setting.

0001	delay off time = 2 minutes
1000	delay off time = 5 minutes
0100	delay off time = 10 minutes
1100	delay off time = 20 minutes
0010	delay off time = 30 minutes
1010	delay off time = 40 minutes
0110	delay off time = 50 minutes
1110	delay off time = 60 minutes

0 = off and 1 = on

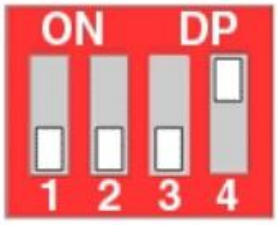

Fig.8 Dip Switches in 0001 Positions

(Other factory settings are available. Please talk to our sales representatives).

2. Adjust the ambient light override threshold

The fine tuning screw is used to set the ambient light override threshold. Use a screw driver to tune the screw gently.

Caution: The tuning screw can not make a full turn. To avoid possible damage to the screw, please do not use strong force to tune it.

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a. Counter-clockwise to "+": increase the threshold, so that the PIR triggers will be overridden in bright lighting condition; and
b. Clockwise to "-": decrease the threshold, so that the PIR triggers will not be overridden in dark lighting condition.

Applications:

BRT-320 ceiling mount PIR occupancy sensor can be used for automatically turning on and/or turning off various loads such as lights, fans, appliances, or other kinds of electrical equipment.

BRT-320 PIR occupancy sensor switch is perfect for saving energy and bringing convenience and safety to our daily life and work. It has wide applications at various locations such as stairwells, corridors, washrooms, offices, conference rooms in homes, schools, laboratories, hospitals, offices, etc., especially useful where AC power supply is not available.

How to Order:

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