Product Descriptions

Ceiling Mount PIR Occupancy Sensor Switch

Model #:   BRT-306C

(Please visit our website www.a-brt.com for more info)

▶ Features:

BRT-306C 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 10 seconds to 15 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;
- Load power up to 1200W;
- Good for all kinds of loads (resistive, capacitive, and inductive);
- 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-306 PIR occupancy sensor switch respectively.

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▶ Specification Parameters:

Input Voltage	220～240V(50Hz/60Hz)	Operation Environment	No-condensation 20-90% RH，-20℃～40℃
Wattage	1200W	Load type	All Types
Mounting Hole Diameter	68mm	Working Range	5m in diameter when mounted at a height of 2.4m
Dimension (max)	Oval faceplate: 105mm Circular faceplate: 77mm	Weight	110g

▶ Wiring Diagram:

BRT-306 PIR sensor switch requires both hot wire and neutral wire for installation:

Hot wire (ACL):   Coming from the power line with 220V;

Neutral wire (ACN):   Usually coming with the hot wire; and

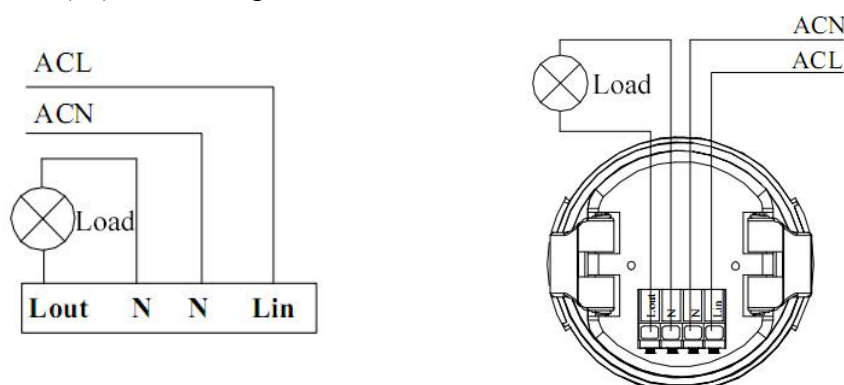Load wires (Ns):   Going to the load.

Fig. 3   BRT-306C 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-306C PIR sensor switches to the ceiling. Fig. 4 and Fig. 5 show the step-by-step installation instructions, respectively.

Warnings:

1.   Please make sure power is turned off before starting installation!

2. Load shorting or using a load with a power rating higher than the specified wattage of the sensor switch is prohibited.

Cautions:

1. Avoid mounting the sensor switch close to air vents, as the vibration and air flow can reduce the effectiveness of the sensor switch;
2. Avoid installing the sensor switch in an electrical circuit which has other frequent on/off switch or appliance, as those on/off actions could cause false triggers.

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-306C sensor switch. Please talk to our sales repres

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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;

Step three: Insert the sensor switch into the hole; and

Fig. 5   Installation without a Holder

▶ Operation Guide:

BRT-306C PIR sensor switch needs a warm-up time about two minutes before it can operate properly. It has a precision tuning screw to adjust the delay-off time, and has a precision tuning screw to adjust the ambient light override threshold, as shown in Fib. 6.

Fig. 6 Fine Tuning Screws for Initial Setups

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

Fig. 7 Removing the Front Cover

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

1. **Adjust the delay-off time**

Please use the fine tuning screw marked I Fig. 6 to set the delay-off time. Use a screw driver to tune the screw gently.

    a. Counter-clockwise to "+": increase the delay-off time. The maximum available delay-off time is 15 minutes.

    b.   Clockwise to "-":   decrease the delay-off time. The minimum available delay-off time is 10 seconds.

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.

    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-306C 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. They are perfect for saving energy and bringing convenience and safety to our daily life and work.

They have wide applications at various locations such as stairwells, corridors, washrooms, offices, conference rooms in homes, schools, laboratories, hospitals, offices, etc.

▶ How to Order:

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