HDL-MSPU05-RF.1C

Wireless Ceiling Mount Ultrasonic & PIR Sensor

buspro WIRELESS

Datasheet

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Figure 1. Wireless Ceiling Mount Ultrasonic & PIR Sensor

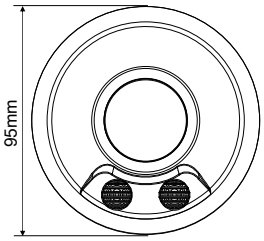


Figure 2. Dimensions - Front View

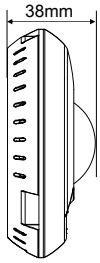


Figure 3. Dimensions - Side View

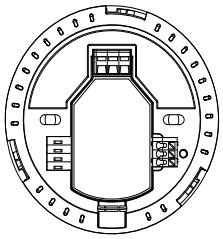


Figure 4. Back View

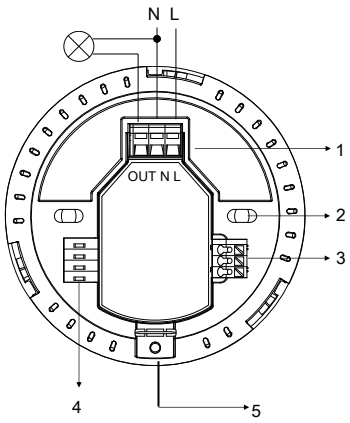


Figure 5. Wiring

Overview

Wireless Ceiling Mount Ultrasonic & PIR Sensor (See Figure 1) contains logic conditions such as luminance sensor, universal switch, etc. The internal logic combines different logic functions such as luminance sensor, ultrasonic sensor, and universal switch, etc. to meet complex control needs.

Functions

- Supports 1 channel 5A relay output
- Real-time status review
- 8 logic conditions including PIR sensor, luminance sensor, ultrasonic sensor, manual button, ultrasonic, universal switch, etc.
- Adjustable PIR sensor sensitivity range from 1 to 100
- Adjustable ultrasonic sensor sensitivity range from 1 to100
- 24 logic blocks, each of which can be set to 20 target outputs no matter the logic block is true or false.
- Target types: scene switch, sequence switch, universal switch, single channel adjustment, broadcast scene or channel, curtain switch, GPRS control, panel control, music control
- 2 logical relationships: OR, AND
- Security protection (security module required)
- Supports online upgrade

Important Notes

- Installation - Ceiling mount
- Please ensure correct connection of the ports/interfaces.
- Installation - Indoor installation. Keep the sensor away from air conditioning outlet, heat source and objects (such as curtains, screens, etc.) that may block the detection area.

Product Information

Dimensions - See Figure 2 and 3

Back View - See Figure 4

Wiring - See Figure 5

1. Power input and relay output terminal
2. Hole for fixing screw
3. Reserved
4. Reserved
5. Programming button:

When the sensor works properly, keep pressing the button for about 3 seconds, then the address can be modified in HDL Buspro Setup Tool. Keep pressing the button for 3 seconds in programming mode to exit.

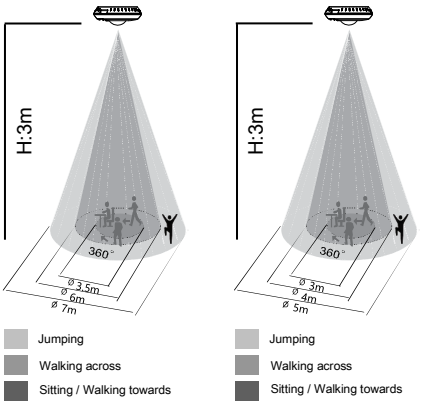
When the sensor works properly, keep pressing the button for 3 times to enter frequency configuration mode, and the wireless gateway should also enter frequency configuration mode. Then the wireless parameters of the sensor can be set, and press the button in frequency configuration mode to exit.

Safety Precautions

- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- HDL does not take responsibility for all the consequences caused by installation and wire connection that are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.

Package Contents

HDL-MSPU05-RF.1C*1 / Angle cover*1 / Screw*2 / Datasheet*1



PIR Detection Range (At 31℃)

Mounting height	Sitting / Walking towards	Walking across	Jumping
3m	3.5m	6m	7m

Ultrasonic Detection Range (At 31℃)

Mounting height	Sitting / Walking towards	Walking across	Jumping
3m	3m	4m	5m

Figure 6. Detection Range

Technical Data

Basic Parameters

Input voltage	AC100-240V (50/60Hz)
Working current	5mA/220V AC
Relay output	5A
Brightness detection range	0~300LUX
PIR detection range in diameter	7m (Installation height: 3m)
Ultrasonic detection range in diameter	5m (Installation height: 3m)
Communication	Buspro Wireless
Wireless transmission power	+10dbm
Wireless sensitivity	-90dbm
Indoor communication distance	≤30m
RSSI (Received Signal Strength Indication)	>-80dbm

Frequency Allocation

WPAN (China)	780 to 786MHz
SRD (Europe)	864 to 870MHz
ISM (North America)	904 to 928MHz
Default PSK	HDL-SecurityKey0

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	Φ95x38 (mm)
Net weight	280g
Housing material	ABS
Installation	Ceiling mount
Protection rating (Compliant with EN60529)	IP20

Name and Content of Hazardous Substances in Products

Components	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Chromium VI (Cr (VI))	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)
Plastic	o	o	o	o	o	o
Hardware	o	o	o	o	-	-
Screw	o	o	o	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

The symbol “-” indicates that the hazardous substance is not contained.

The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.

The symbol “×” indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

Technical support
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