

### Datasheet

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Figure 1. Ceiling Mount Indoor Microwave Sensor

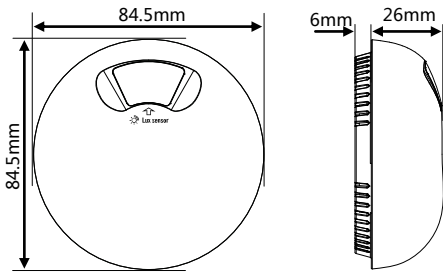


Figure 2. Dimensions - Front View Figure 3. Dimensions - Side View

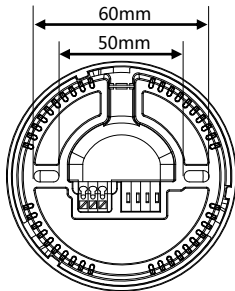


Figure 4. Dimensions - Back View

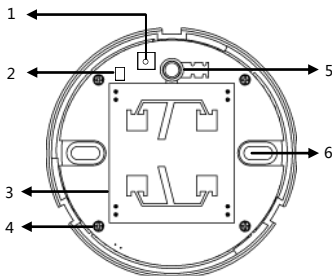


Figure 5. Components - Interior View

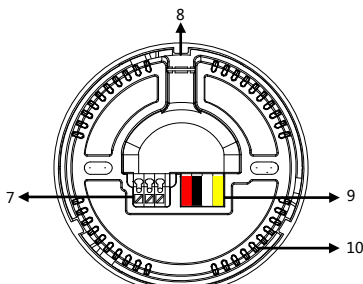


Figure 6. Components - Back View

## Overview

Ceiling Mount Indoor Microwave Sensor (See Figure 1) includes LUX sensor, microwave sensor, temperature sensor, dry contact, universal switch, which can satisfy different requirements according to different logics. The sensor supports HDL-Security mode.

## Functions

- Built-in LUX sensor, microwave sensor, temperature sensor, dry contact, universal switch.
- Two logical relations: OR, AND.
- It has 24 logic blocks, Both true logic and false logic can trigger the targets respectively. Each logic can set 20 targets.
- Microwave sensitivity range: 1-100.
- Each logic supports trigger delay time from 0 to 3600s.
- The range of universal switch number in logic is 201-248, each logic has 2 universal switch numbers.
- Support security function
- Support online update

## Important Notes

- Buspro cable - CAT5E or dedicated HDL Buspro cable.
- Buspro connection - Series connection (hand-in-hand recommended).
- Installation position - Ceiling mount
- Check the connection, avoid any mistake
- Installation position: Indoor, keep it away from AC outlet and heat source.

## Product Information

Dimensions - See Figure 2 - 4

Components - See Figure 5 - 6

1. Programming button, when the module is in normal working mode, keep pressing this button for 3s, the indicator turns red, then the address can be modified via HDL Buspro Setup Tool.
2. Indicator
3. Microwave sensor
4. Screw for fixing PCB
5. Lux sensor
6. Screw hole
7. Dry contact 1, dry contact 2
8. Wiring channel, open it for wiring
9. HDL Buspro terminal, from left to right: 24V DC, COM, D-, D+,
10. Vents

Detection range - See Figure 7

Installation - See Figure 8 - 11

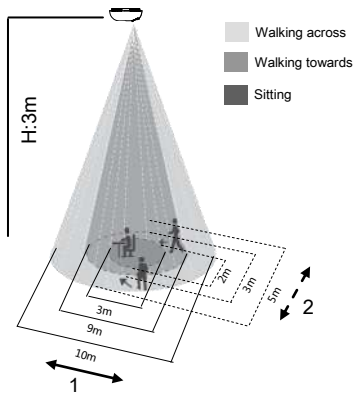
- Step 1. Rotate and take the cover off. Screw the plate on the wall box with screws.
- Step 2. Install the sensor onto the plate with screws.
- Step 3. Rotate and attach the cover to the sensor.

## 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-MSW01.4C\*1 / Buspro connector\*1 / Screw\*2 / Datasheet\*1



Detection Range (At 21°C)

Mounting height	Directions	Sitting	Walking towards	Walking across
3m	1. major axis direction	3m	9m	10m
	2. minor axis direction	2m	3m	5m

Figure 7. Detection Range

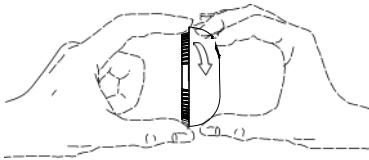


Figure 8

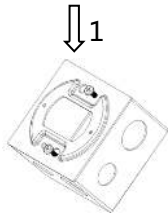


Figure 9

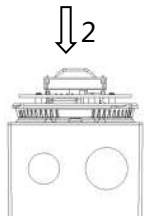


Figure 10

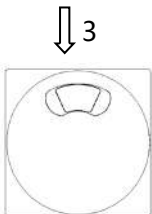


Figure 11

Figure 8-11. Installation

#### Technical support

E-mail: [support@hdlautomation.com](mailto:support@hdlautomation.com)

Website: <https://www.hdlautomation.com>

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## Technical Data

### Basic Parameters

Working voltage	12~30V DC
Working current	32mA/24V DC
Temperature detection range	-40°C~60°C
Illumination detection range	0~5000LUX
Microwave detection range	Major axis direction: Φ10m Minor axis direction: Φ5m (Installation height: 3m)

### External Environment

Working temperature	-20°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C
Storage relative humidity	≤93%

### Specifications

Dimensions	Φ84.5mm×32mm
Net weight	67.5g
Housing material	ABS
Installation	Ceiling mount (See Figure 8 - 11)
Protection rating (Compliant with EN 60529)	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	x	-	-
Solder	x	o	o	o	-	-
PCB	x	o	o	o	o	o
IC	o	o	o	o	x	x

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 "x" 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.

## HDL Buspro Cable Guide

HDL Buspro	HDL Buspro Cable	CAT5/CAT5E
DATA+	Yellow	Blue/Green
DATA-	White	Blue white/Green white
COM	Black	Brown white/Orange white
24V DC	Red	Brown/Orange