



Figure 1. Ceiling Mount Indoor Microwave Sensor  
图 1. 室内微波传感器

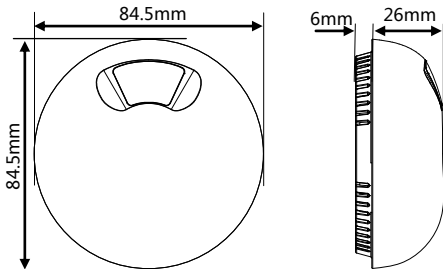


Figure 2. Dimensions - Front View Figure 3. Dimensions - Side View  
图 2. 尺寸图 - 正面 图 3. 尺寸图 - 侧面

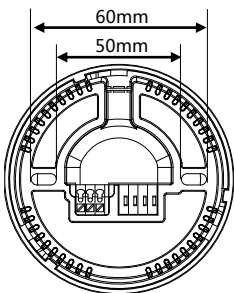


Figure 4. Dimensions - Back View  
图 4. 尺寸图 - 背面

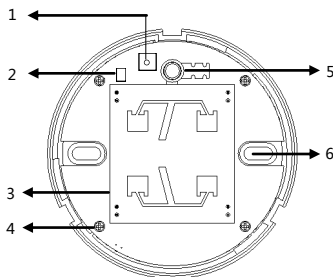


Figure 5. Components - Interior View  
图 5. 部件 - 内部图

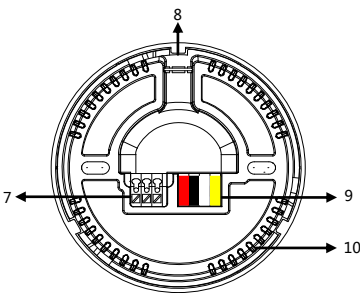


Figure 6. Components - Back View  
图 6. 部件 - 后视图

## 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 upgrading

## Important Notes

- Buspro - CAT5E or HDL Buspro/KNX cable
- Buspro connection - Series connection (hand-in-hand recommended)
- Installation position - Ceiling mount
- Check the connection, avoid any mistake
- Installation position: Indoor, 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 software.
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

## 产品概述

室内微波传感器 (见图 1) 包含照度传感器, 微波移动传感器, 温度传感器, 通用开关, 干接点。内部逻辑将照度传感器、微波移动传感器、通用开关等条件根据需求组成不同的逻辑功能, 满足客户复杂的控制需求。支持 HDL 安防预警功能。

## 功能说明

- 内置照度传感器, 微波移动传感器, 温度传感器, 干接点, 通用开关
- 具有两个逻辑关系: OR, AND
- 具有 24 个逻辑功能, 逻辑成立与否均可触发控制目标, 每个逻辑可设置 20 个目标输出
- 微波传感器的灵敏度可调, 范围 1-100
- 每个逻辑支持触发延时, 0 到 3600 秒
- 逻辑条件中通用开关号分配为 201-248, 每个逻辑两个通用开关号
- 安防预警功能
- 支持 HDL Buspro 在线升级

## 注意事项

- 总线 - CAT5E 或者 HDL Buspro/KNX 专用电缆
- 总线连接 - 推荐使用手拉手的连接方式
- 安装方式 - 吸顶
- 按照总线定义连接相应的端口, 不能接错
- 安装位置: 室内, 远离空调出风口, 远离热源

## 产品信息

产品尺寸 - 见图 2-4

产品部件 - 见图 5-6

1. 模块地址设置键, 正常工作时, 长按该键约 3 秒红色长亮, 此时在 HDL Buspro 系统软件中可修改地址。
2. 指示灯
3. 微波传感器
4. PCB 固定螺钉
5. 照度传感器
6. 螺丝固定孔
7. 干接点 1 干接点 2
8. 走线槽, 如需从侧面走线, 请将走线槽的挡板拨开。
9. HDL Buspro, 从右至左:  
24V DC, COM, DATA -, DATA +
10. 通风孔

感应范围 - 见图 7

设备的安装 - 见图 8-11

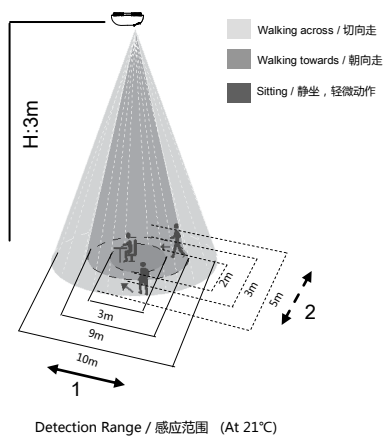
- 步骤 1. 拧开传感器。用螺丝将铁板固定在暗盒上。
- 步骤 2. 用螺丝将室内微波传感器安装在铁板上。
- 步骤 3. 盖上面盖。

## 安全警告

- 本设备的安装及调试工作必须由我司或我司指派的机构进行。其电气安装的计划和施工, 必须遵守当地相关的安全标准和法规。
- 未按照本说明书进行安装及接线方式的, 所造成的一切后果皆与我司无关。
- 请不要私自拆装或更换零部件, 否则可能会导致机械故障、电击、火灾或身体伤害。
- 请将一切维修工作交由我司售后部门或指定机构进行, 本产品的保修范围不适用于因用户拆卸产品而导致的故障。

## 装箱清单

HDL-MSW01.4C\*1 / 总线端子\*1 / 螺丝\*2 / 说明书\*1



Detection Range / 感应范围 (At 21°C)

| Mounting height / 安装高度 | Directions / 方向                | Sitting / 静坐, 轻微动作 | Walking towards / 朝向走 | Walking across / 切向走 |
|------------------------|--------------------------------|--------------------|-----------------------|----------------------|
| 3m                     | 1. major axis direction / 长轴方向 | 3m                 | 9m                    | 10m                  |
|                        | 2. minor axis direction / 短轴方向 | 2m                 | 3m                    | 5m                   |

Figure 7. Detection Range

图 7. 感应范围

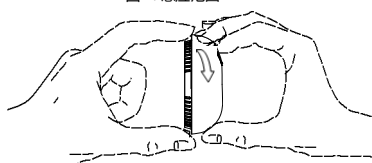


Figure 8 / 图 8

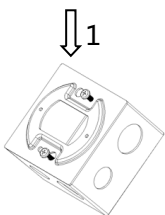


Figure 9 / 图 9

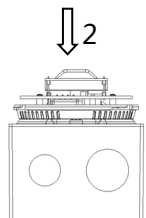


Figure 10 / 图 10

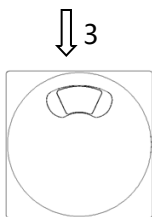


Figure 11 / 图 11

Figure 8-11. Installation  
图 8-11. 安装图

#### 技术支持

服务热线: 020-85820195

(工作时间: 9:00-12:00, 13:00-18:00, 星期一至星期五)

邮箱: kfb@hdlchina.com.cn

网址: http://www.hdlchina.com

#### Technical support

E-mail: support@hdlautomation.com

Website: https://www.hdlautomation.com

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## Technical Data

### Electrical 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<br>Minor axis direction: Φ5m<br>(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<br>(See Figure 8 - 11) |
| Protection rating<br>(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/KNX | CAT5/CAT5E               |
|------------|----------------|--------------------------|
| DATA+      | Yellow         | Blue/Green               |
| DATA-      | White          | Blue White/Green White   |
| GND        | Black          | Brown White/Orange White |
| 24V DC     | Red            | Brown/Orange             |

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## 技术参数

### 电气参数

|        |                                       |
|--------|---------------------------------------|
| 工作电压   | 12~30V DC                             |
| 工作电流   | 32mA/24V DC                           |
| 温度测量范围 | -40°C~60°C                            |
| 亮度感应范围 | 0~5000LUX                             |
| 微波感应距离 | 长轴方向: Φ10m<br>短轴方向: Φ5m<br>(安装高度: 3m) |

### 外部环境

|        |            |
|--------|------------|
| 工作温度   | -20°C~45°C |
| 工作相对湿度 | ≤90%       |
| 储存温度   | -20°C~60°C |
| 储存相对湿度 | ≤93%       |

### 产品规格

|                       |                  |
|-----------------------|------------------|
| 尺寸                    | Φ84.5mm×32mm     |
| 净重                    | 67.5g            |
| 外壳材料                  | ABS              |
| 安装方式                  | 吸顶安装<br>(见图8-11) |
| 防护级别<br>(符合 EN 60529) | IP20             |

### 产品中有害物质的名称及含量

| 部件名称  | 有害物质   |        |        |               |            |              |
|-------|--------|--------|--------|---------------|------------|--------------|
|       | 铅 (Pb) | 汞 (Hg) | 镉 (Cd) | 六价铬 (Cr (VI)) | 多溴联苯 (PBB) | 多溴二苯醚 (PBDE) |
| 塑胶组件  | o      | o      | o      | o             | o          | o            |
| 五金铜件  | o      | o      | o      | o             | -          | -            |
| 螺丝组件  | o      | o      | o      | x             | -          | -            |
| 焊锡    | x      | o      | o      | o             | -          | -            |
| PCB组件 | x      | o      | o      | o             | o          | o            |
| IC    | o      | o      | o      | o             | x          | x            |

- : 表示不含有该有害物质。

o : 表示该有害物质在该部件所有均质材料中的含量均在IEC62321-2015规定的限量要求以下。

x : 表示该有害物质至少在该部件的某一均质材料中的含量超出IEC62321-2015规定的限量要求。

### 总线定义

| HDL Buspro | HDL Buspro/KNX | CAT5/CAT5E |
|------------|----------------|------------|
| DATA+      | 黄              | 蓝/绿        |
| DATA-      | 白              | 蓝白/绿白      |
| GND        | 黑              | 棕白/橙白      |
| 24V DC     | 红              | 棕/橙        |