



Figure 1. Wall Mount Outdoor Microwave Sensor  
图 1. 室外微波传感器

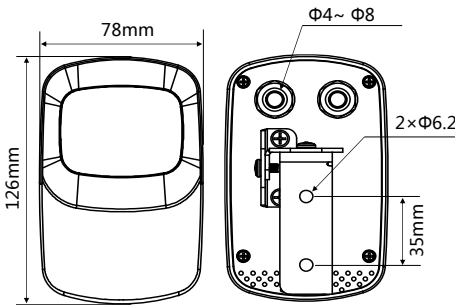


Figure 2. Dimensions - Front View 图 2. 尺寸图-正面  
Figure 3. Dimensions - Back View 图 3. 尺寸图-背面

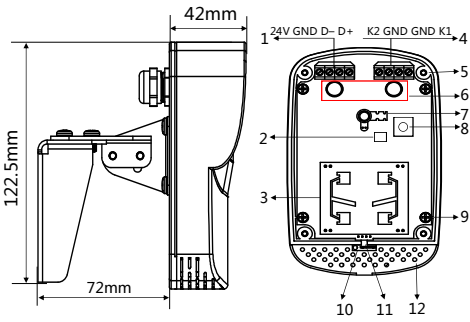
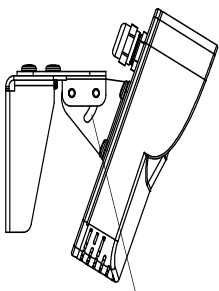
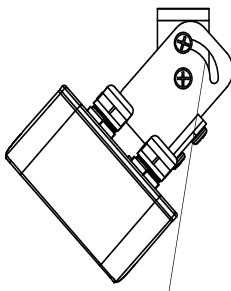


Figure 4. Dimensions - Side View 图 4. 尺寸图-侧面  
Figure 5. Components - Interior View 图 5. 部件 - 内部图



Adjustable range is  $\pm 25^\circ$   
Figure 6. Adjustable range upwards and downwards  
6. 上下可调节范围



Adjustable range is  $\pm 45^\circ$   
Figure 7. Adjustable range on left and right  
7. 左右可调节范围

## Overview

Wall Mount Outdoor Microwave Sensor (See Figure 1) has various logic conditions, including LUX sensor, microwave movement sensor, humidity sensor, temperature sensor, dry contact, universal switch, etc. Internal logic makes certain arrangements of the conditions to form various logic functions in order to satisfy customers' requirements. It also supports HDL-Security mode.

## Functions

- Built-in LUX sensor, microwave movement sensor, humidity sensor, temperature sensor, dry contact, universal switch.
- Two logical relations: OR, AND.
- 24 logic blocks: Either true logic or false logic can trigger the targets respectively. Each logic can set 20 targets.
- Adjustable microwave sensitivity between 1 to 100
- Each logic supports trigger delay time from 0 to 3600s.
- The range of universal switch number in logic is from 201 to 248, and each logic has 2 universal switch numbers. Universal switch can close automatically, and the time range is 1-3600s.
- Supports security function.
- The adjustable range of sensor angle in up-down direction is  $-25^\circ \sim +25^\circ$ , and in left-right direction is  $-45^\circ \sim +45^\circ$ .
- Sensor has heating function. When the temperature is below  $-5^\circ\text{C}$ , it will heat until the circuits can work normally.
- Tamper-proof function.
- Supports online upgrading.

## Important Notes

- Buspro cable - Dedicated HDL Buspro cable.
- Buspro connection - Series connection (hand-in-hand recommended).
- Installation - Fix with screws.
- Check the connection, avoid any mistake.
- The angle of the sensor can be adjusted by a screwdriver.
- Installation position: Outdoor. Keep it away from AC outlet and heat source.
- To avoid unintentional triggering, the HDL Buspro cables should be fixed tightly when installing the sensor.

## Product Information

Dimensions - See Figure 2 - 4

Components - See Figure 5

1. Buspro terminal, from left to right are: 24V GND D- D+
2. Indicator
3. Microwave sensor
4. Dry contact terminal, from left to right are K2 GND GND K1
5. Screw hole
6. Wiring hole
7. Lux sensor
8. Press the button for 3s, the address can be modified by HDL Buspro Setup Tool.
9. Screw for fixing PCB
10. Temperature sensor
11. Humidity sensor
12. Ventilation hole

Adjustable range - See Figure 6 - 7

Installation - See Figure 9-11

- Step 1. Fix the Wall Mount Outdoor Microwave Sensor on the bracket with screws.
- Step 2. Install the sensor fixed on the bracket in an appropriate position with screws.

## 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-MSOUT.4W\*1 / Screw\*2 / Datasheet\*1

## 产品概述

室外微波传感器(见图1)包含照度传感器,微波移动传感器,湿度传感器,温度传感器,干接点,通用开关等逻辑条件。内部逻辑将根据照度传感器、微波移动传感器、干接点、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,湿度传感器,温度传感器,干接点输入,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,从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,通用开关具有自动关闭功能,时间范围为1-3600s
- 安防预警功能
- 传感器上下角度可调范围 $-25^\circ \sim +25^\circ$ ,左右角度可调范围 $-45^\circ \sim +45^\circ$
- 低温加热功能,温度低于 $-5^\circ\text{C}$ ,系统自行加热至电路板能够正常工作范围
- 干接点防拆功能
- 支持HDL Buspro在线升级

## 注意事项

- 总线 - HDL Buspro专用电缆
- 总线连接 - 推荐手拉手的连接方式
- 安装方式 - 螺钉固定
- 按照总线定义连接相应的端口,不能接错
- 需用螺丝刀调节传感器的角度
- 安装位置:室外,远离空调出风口,远离热源
- 为防止误触发,安装时,需固定总线

## 产品信息

产品尺寸 - 见图 2 - 4

部件 - 见图 5

1. Buspro 端子, 从左到右为24V GND D- D+
2. 指示灯
3. 微波传感器
4. 干接点端子, 从左到右为 K2 GND GND K1
5. 外壳螺钉孔
6. 穿孔孔
7. 照度传感器
8. 模块地址设置键, 正常工作时, 长按该键约3秒, 此时在HDL Buspro系统软件中可修改地址。
9. PCB固定螺钉
10. 温度传感器
11. 湿度传感器
12. 通风孔

可调节范围 - 见图 6-7

设备的安装 - 见图 9-11

- 步骤1. 用螺丝将室外微波传感器固定在支架上。
- 步骤2. 用螺丝将已固定在支架上的传感器安装在合适的位置。

## 安全警告

- 本设备的安装及调试工作必须由我司或我司指定的机构进行。其电气安装的计划 and 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-MSOUT.4W\*1 / 螺丝\*2 / 说明书\*1

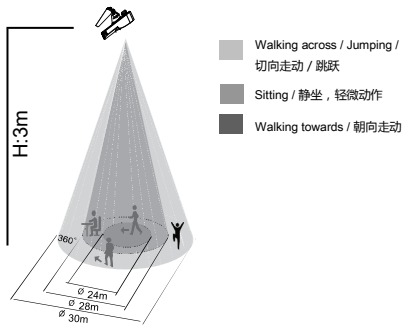


Figure 8. Detection Range / 感应范围 (At 26°C)

Mounting height / 安装高度	Walking towards / 朝向走动	Sitting / 静坐, 轻微动作	Walking across / 切向走动/跳跃
3m	24m	28m	30m

Figure 8. Detection Range / 图 8. 感应范围

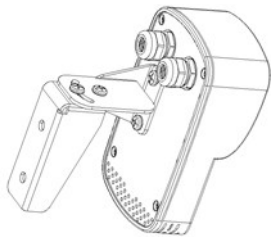


Figure 9 / 图 9

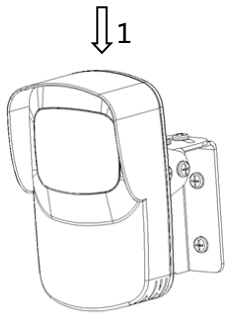


Figure 10 / 图 10

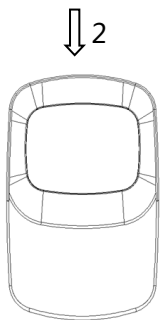


Figure 11 / 图 11

Figure 9 - 11. Installation / 图 9 - 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

### Basic Parameters

Working voltage	12~30V DC
Working current	31mA/24V DC
Temperature detection range	-40°C~60°C
Illumination detection range	0~15000LUX
Humidity detection range	20~95%RH
Microwave detection range	Φ30m (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	126mm×78mm×42mm
Net weight	360g
Housing material	ABS, stainless steel
Installation	Screw fixation (See Figure 9 - 11)
Protection rating (Compliant with EN 60529)	IP56

### 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
DATA+	Yellow
DATA-	White
GND	Black
24V DC	Red

ZH

## 技术参数

### 基本参数

工作电压	12~30V DC
工作电流	31mA/24V DC
温度测量范围	-40°C~60°C
亮度感应范围	0~15000LUX
湿度感应范围	20~95%RH
微波感应距离	Φ30m (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	126×78×42(mm)
净重	360g
外壳材料	ABS、不锈钢
安装方式	螺钉固定安装 (见图9-11)
防护级别 (符合 EN 60529)	IP56

### 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 电缆
DATA+	黄
DATA-	白
GND	黑
24V DC	红