产品规格书

PRODUCT SPECIFICATION

PRODUCT—产品: 12VDC IC方案感应器

MODEL NO—型号: HDI02-01VR

DATE——日期: 2021-12-16

PREPARED—编制: 夏勇

CHECKED—审核: _(signature)_

APPROVED—批准: _(signature)_

客户确认

CUSTOMER RECEIVED

CUSTOMER—客户: _____

CHECKED——审核: _____

APPROVED—批准: _____

DATE———日期: _____

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12VDC IC方案感应器
12VDC IC Solution Microwave Sensor
HDI02-01VR ⓊL FC

• 12VDC输入，IC方案 •遥控设置 •尺寸小巧，应用广泛

• 12VDC Input,IC Solution •Remote Control
• Small Size, widely applied.

On/Off Control 开/关功能	Detection Area 探测范围设置	Daylight Sensor 日光阀值设置	Hold Time 延时时间设置
Stand-by period 守候时间设置	Stand-by dimming level 守候亮度设置	Remote Control 遥控设置	Warranty 5年质保 (5 years)

Technical Data 参数规格

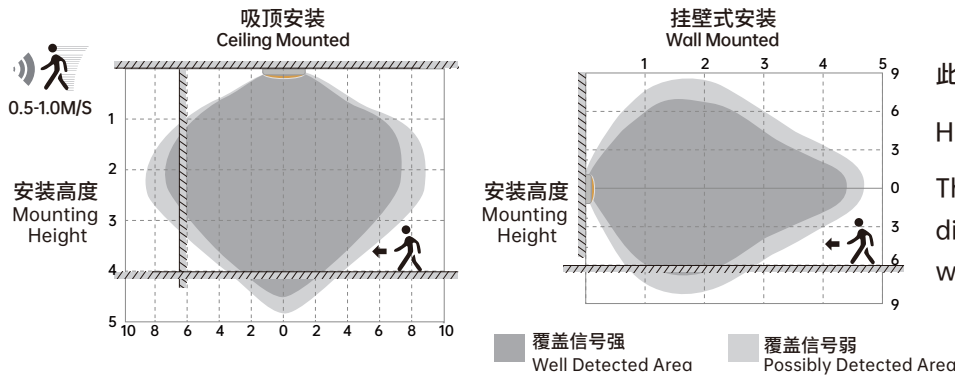|		
工作电压 Operating Voltage **10-15V**	灵敏度设置 Detection Area **25%/50%/75%/100%**	微波频率 Microwave Frequency **5.8GHz±75MHz**
连接端子 Quick Connector **VCC黑白线 GND粉线 0-10V紫线** VCC Black/White GND/Pink 0-10V/Purple	延迟时间设置 Hold Time **5S/30S/1min/10min/20min/30min**	微波功率 Microwave Power **<0.3mW**
负载能力 Switching Capacity **<40mA**	日光阀值设置 Daylight Threshold **2Lux/10Lux/30Lux/50Lux/80Lux/120Lux/Disable**	安装高度 Mounting Height **2.5-4.5m/8.2-14.76ft 垂直安装** 2.5-4m/8.2-14.76ft Ceiling Mounted
工作电流 Operating Current **<30mA**	守候时间设置 Stand-by period **0s/10s/30s/1min/5min/10mim/30min/+∞**	探测范围 Detection Range **半径3-7m/ 9.84-22.96ft** Radius 3-7m/9.84-22.96ft
控制方式 Control Method **0-10V**	守候亮度设置 Stand-by dimming level **10%/20%/30%/50%**	IP 防护等级 IP Rating **IP20**
探测角度 Detection Angle **壁装150°，垂直安装360°** 150° Wall Mounted, 360° Ceiling Mounted	工作温度 Operating Temperature **-35℃~+70℃**	功能设置方式 Remote **遥控器配 03R** Standard Remote Partner HD03R

出厂默认设置: 探测范围100%，延时时间5s，日光阈值"Disable" /守候时间0s/守候亮度10%。可按客户要求更改出厂设置
Factory Default Setting: Detection area 100%/ Hold time 5s/ Daylight threshold Disable/Stand-by period 0s/ Stand-by dimming level 10%. Can be customized default programming.

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Detection Patterns 探测范围图

吸顶安装
Ceiling Mounted

0.5-1.0M/S

安装高度
Mounting
Height

挂壁式安装
Wall Mounted
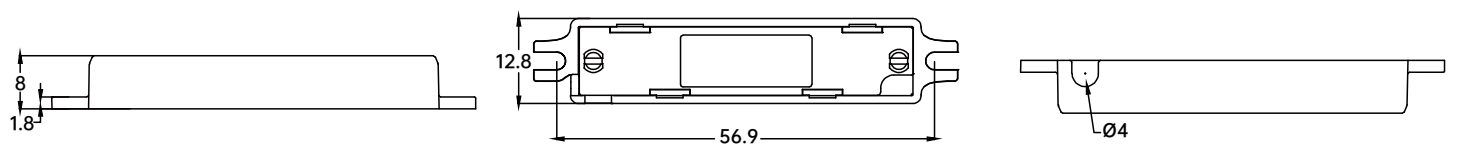
安装高度
Mounting
Height

此图表示探测范围为100%时检测距离的参考图。

Highest mounting height is 4.5m

This figure indicates the maximum
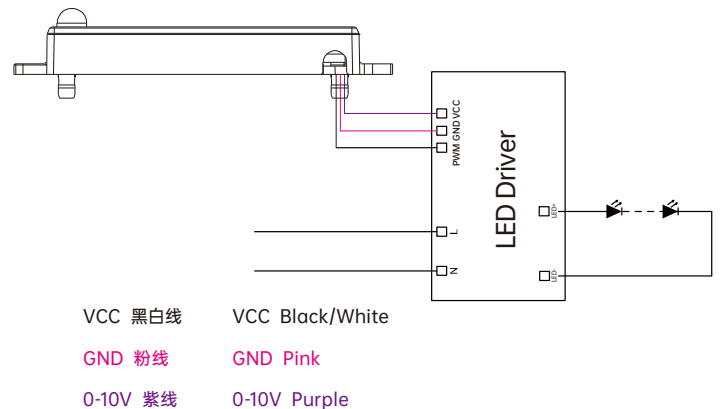distance at the highest mounting height
with 100% sensitivity.

覆盖信号强
Well Detected Area

覆盖信号弱
Possibly Detected Area

Dimensions尺寸图

Unit:mm

8
1.8

12.8

56.9

Ø4

Mechanical structure 结构图

红外接收器
IR Signal Receiver

安装孔
Installation Hole

Wiring Diagram接线图

PWM GND VCC

LED Driver

L

N

VCC 黑白线

GND 粉线

0-10V 紫线

VCC Black/White

GND Pink

0-10V Purple
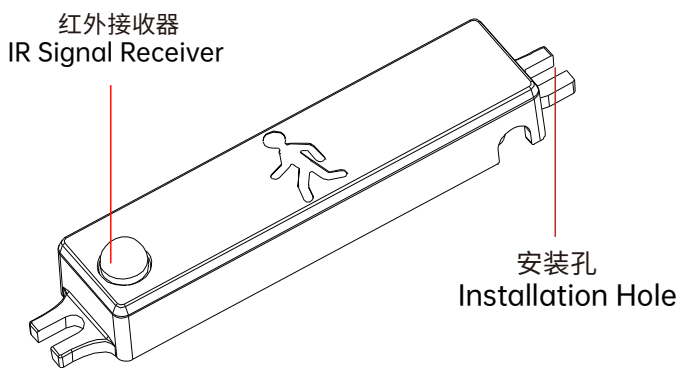
Installation Method 安装方式

Please ensure no any metal is thielding the sensor antenna. 安装时注意微波模组上不能有金属物遮挡
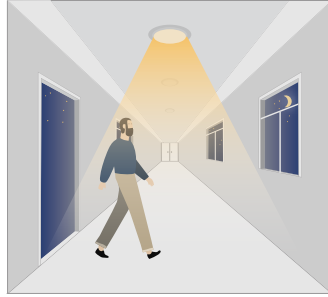
Sensor & Intelligent Control
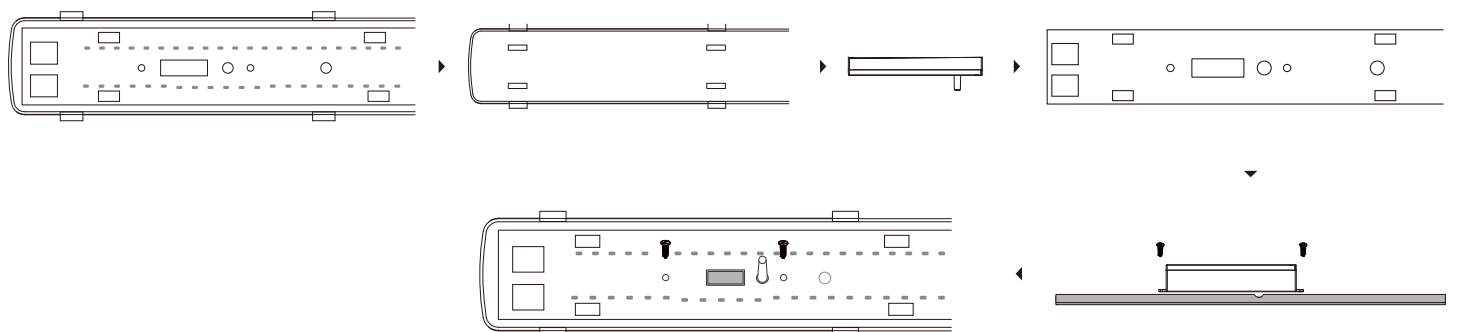
1.Automatically ON/OFF function 自动开/关功能
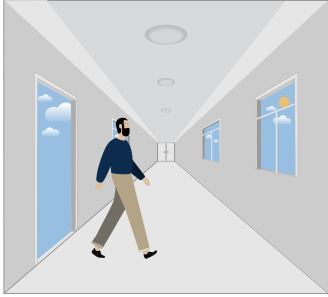
环境光亮度充足时，即使检测到运动，感应器也不亮灯。
With sufficient daylight, even when motion detected, light remains OFF.

当环境光亮度不足时，检测到运动后，感应器自动亮灯。
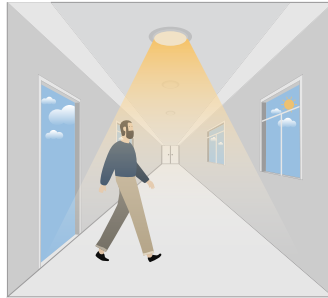With insufficient daylight, the sensor turns light ON when motion gets detected.

感应器检测不到运动后，自动进入延时时间，延时时间后自动关灯。
The sensor turns OFF light automatically after the holdtime when there's no motion detected.

2.Daylight Disable 光感不受控功能

当自然光阈值设定为disable时，即完全不考虑自然光亮度，感应器检测到运动即亮灯。
When daylight threshold is preset as "disable", the sensor turns light ON when motion gets detect-ed, and OFF after hold-time.
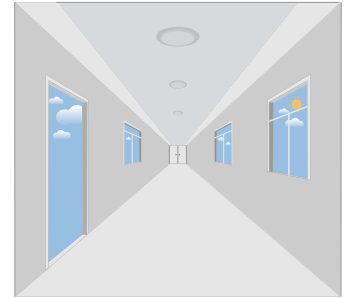

检测到运动后，感应器自动亮灯。
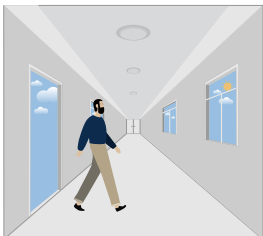The sensor turns light ON when motion gets detected.

感应器检测不到运动后，自动进入延时时间。
The sensor keeps light ON for holdtime period after motion leaves.

延时时间后自动关灯。
The sensor turns OFF light automatically after the holdtime.

3.Corridor Function, Bi-level Dimmable 三段式调光功能

环境光亮度充足时，即使检测到运动，感应器也不亮灯。
With sufficient daylight, the sensor keeps light OFF even motion gets detected.
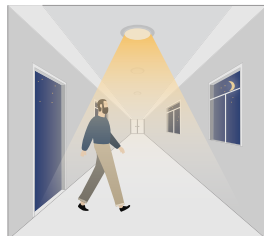
当环境光亮度不足时，检测到运动后，感应器自动亮灯。
With insufficient daylight, the sensor turns light ON when motion gets detected.
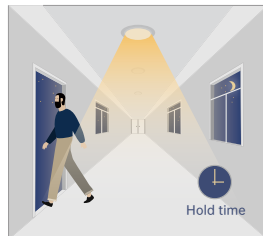
感应器检测不到运动后，自动进入延时时间；延时时间段内灯亮100%。
After there's no motion detected, the sensor keeps light ON 100% for holdtime.
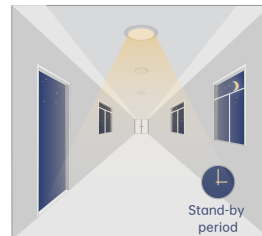
延时时间后，感应器自动进入守候时间，保持守候亮度。
After holdtime, sensor dims light to standby dimming level for standby period.
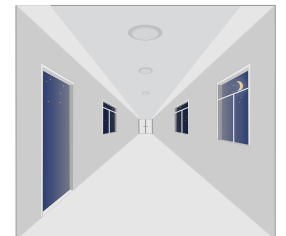
守候时间结束后，感应器自动灭灯。
The sensor turns OFF light automatically after the standby period when there's no motion detected.

Sensor & Intelligent Control

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1. Please read the instructions carefully before using this product and keep it well for all users to read at any time.

2. The sensor should be installed by qualified electrician and ensure power is off before the installation.

3. We reserve the right to modify any incorrect text, image and necessary technical parameters.

4. Any unauthorized modification is forbidden, otherwise all guarantees will be immediately invalid.

Attention
注意事项

1、使用本产品前请仔细阅读使用说明，并妥善保管以便所有使用者随时参阅。

2、感应器应由专业的电工安装，并确保在安装前，切断电源。

3、我们将保留对任何错误文字或图像以及必要的技术参数做出修改的权利。

4、未经授权不得擅自修改感应器，否则一切签约保证将立即失效。

Installation precautions 安装注意事项

1. Microwave sensor can be installed in any lamp except the one with full metal shell.

2. The detected surface cannot be shielded by metal objects.

3. Make sure the microwave module is completely exposed outside.

4. The detection surface of the sensor module shall be installed facing the detection area.

5. Should be kept away from the driver to avoid interference generation and lamp flashing.

6. Wiring must be strictly in accordance with the wiring diagram to avoid short circuit.

1、除全金属壳灯具外，微波感应器可内置安装在其它任意灯具内。

2、微波感应面不能有金属物体遮挡。

3、开孔安装时，确保微波模块应完全裸露在外，否则会导致灯常亮或不灭。

4、感应模组探测面应面对检测区安装，否则会导致无感应或灯常亮。

5、应与驱动保持距离，否则会产生干扰，导致灯闪。

6、须严格按照接线图接线，否则会导致感应器短路。

Application Environment 应用环境

1. Suitable for indoor installation to avoid false triggering due to external factors such as rain, wind or tree swing.

2. Shall not be installed in the place with all four metal shelters and small space (such as galvanized-iron roof).

3. Shall note be mounted installation, so as to avoid false trigger caused by the lamp itself shaking.

4. Shall not be installed next to large operating machines such as ventilator/ceiling fan to avoid false triggering caused by machine vibration.

1.适用于室内安装，以免外界因素如下雨、刮风或树木摆动而误触发微波感应器。

2.避免安装在四面都有金属遮挡物，且空间狭小的地方（如铁皮房），以免造成灯常亮等自激现象。

3.避免悬挂式安装，以免灯具自身摇晃引起的误触发。

4.避免安装在大型运作的机器旁（如抽风机 / 吊扇），以免机器震动引起误触发。

User Notes 用户须知

1.Microwave can penetrate walls or glass thinner than <20mm and attenuate if thicker than <20mm.

2. The driver voltage shall be stable and float within 10%.

3. Detection area will be affected by speed of motion, mounting height and movement volume.

4. Conduct test on sunny days without the lampshade which will affect the tested lux value.

1.除金属外，微波可穿透墙壁或玻璃（＜20mm），但会有衰减。

2. 驱动电压需稳定，不能超出或低于工作电压 ±10%

3.微波感应器会受安装环境、灯具、测试人员身形和速度的影响，探测范围会有所差异。

4. 测试所得的 Lux 值会受灯具安装方式和灯罩材料的影响，建议在没有灯罩的晴天进行测试。

REMOTE FOR DIMMABLE SENSORS WITH MEMORY FUNCTION

支持设置记忆与一键发送
配合调光功能感应器

Model: HD03R
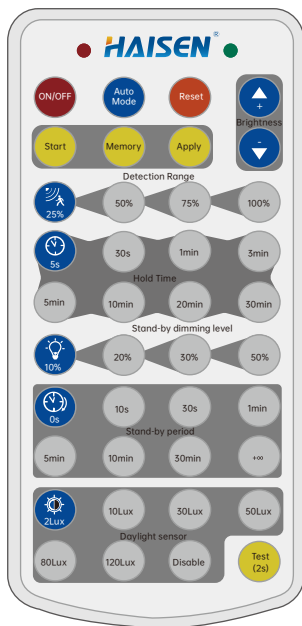
Remote Keys 遥控按键	Function 按键功能	Performance 按键介绍
ON/OFF	ON/OFF 开/关功能	1. "ON/OFF" key only functions as a switch of the light. 2. If press this button to turn off the lamp before it's short-circuited, the lamp will remain off after power-on again. 1. 开 / 关灯常亮长灭模式; 2. 关闭微波感应模式
Auto Mode	Auto Mode 自动模式	Press "Auto Mode" button, the sensor starts to work and all settings remain the same before the light gets switched on/off. "此键为模式切换，在 ON/OFF 模式下按此键切换到感应模式，且保留进入 ON/OFF 模式之前的感应设置参数。
Reset	Reset 重置/复位	1.Press "Reset" button, change brightness to max level. 2.Press "Reset" button, products with DIP switch will be controlled by DIP switches; otherwise all the setting will be just initial, that is 100% detection range,hold time 5S, no stand-by time and daylight threshold disabled. 此键为复位键，返回出厂默认设置（默认值为探测范围 100%，延迟时间 5s，无守候时间，光感不受控），如果产品带有拨码即返回拨码设置的状态。
▲/▼	+/- 调光按键	1. To adjust brightness 10-100% in on/off mode. 2. To adjust highest brightenss 60-100% in sensor mode. 此键可以调光亮度，在开关模式下调节范围为 10-100%; 在感应模式下调节范围为 60-100%。
Start	Start 开始设置键	Press "Start" to customize scene, users can change detection range, daylight threshold, holdtime, standby dimming level and standby period. 1. Press "Memory" to save all the settings. 2. The settings remained as the last time if not get resetted values.
Memory	Memory 存储/保存键	1. Press "Apply" to deliver the saved setting. 2. Press "Apply" without "memory"will make all the setting one-time operation. 3. Settings should be done within 30S, otherwise it exits memory mode.
Apply	Apply 发送指令键	先按 start 键开始自定义场景存储，按了此键开始设置探测范围 / 延迟时间 / 守候亮度 / 守候时间 / 光感阀值的设置，设置完成再按 Memory 键保存，应用该存储模式时，按 Apply 按键一键发送功能。 注：设置时有时间限制，在开始设置之后，按键与按键设置之间的时间间隔是 <30s，>30s 就会自动退出该设置模式。
	Detection area 检测范围	Detection area (Press to define detection area 100%/75%/50%/25%.) 即检测区域大小或探测灵敏度强弱的设置，分别为: 25%/50%/75%/100%。
	Hold time 延迟时间	Hold time (Press to define holdtime 5s/30s/1min/3min/ 5min/10min/20min/30min) 指人离开感应区后灯亮度保持不变的时间设置，分别为: 5s/30s/1min/ 3min/5min/10min/20min/30min。
	Daylight Threshold 守候亮度	Stand-by dimming level (Press to define stand-by dimming level 10%/20%/30%/50%.) 守候亮度是与守候时间结合同时使用的，在守候时间时的亮度设置，分别为:10%/20%/30%/50%。
	Stand-by period 守候时间	Stand-by period (Press to define stand-by period 0s/10s/ 30s/1min/5min/10min/30min/+∞.) Note: "0s" means no standby period; "+∞" means unlimited standby period. 即延时时间结束灯的亮度变暗进入等候的这段时间为守候时间，为别是: 0s/10s/30s/1min/5min/ 10min/30min/+∞。（注意 :"0"指的无守候时间; "+∞"指的是守候时间为无穷大）。
	Stand-by dimming level 日光感应	Daylight threshold (Press to define daylight level 2Lux/ 10Lux/30Lux/50Lux/80Lux/120Lux/Disable.) Note: Disable means light will be turned on once sensor detects movement, regardless of the ambient lux. 也叫光敏阀值，指检测环境的亮度值，分别为 : 2Lux/10Lux/30Lux/50Lux/80Lux/120Lux/Disable。（注意: 选择 Disable 时，即光感关闭，运动感应优先，有人来灯即亮，光感不工作）。
Test (2s)	Test mode 测试模式	The button "Test (2s)" is for testing purpose after commissioning. Pressingthis button, the sensor goes to test mode (hold time is only 2s) 测试 2s 按键为测试模式，（探测范围为 100%，延迟时间 2s，守候亮度 10%，守候时间 0s，光感不受控）。此键无记忆。

How to Use HD03R

Sensor Programming:
For singla sensor testing purpose
1. ON/OFF button to turn on the light

2. RESET button so start programming

3. Choose necessary functional buttons of all the zones: detection area, holdtime, standby dimming level, standby period and daylight threshold

4. Done and leave it; the program has been well kept in the remote now

For project programing purpose
@the 1st sensor
1. ON/OFF button to turn on the light

2. RESET button so start programming

3. START button

4. Choose necessary functional buttons of all the zones, detection area, holdtime, standby dimming level, standby period and daylight threshold

5. MEMORY button to keep the program inside the remote

6. APPLY button to deliver the kept program

7. Done and leave it

@the rest sensors
1. ON/OFF button to turn on the light

2. RESET button so start programming

3. APPLY button to deliver the kept program

Manually dimming:
1. ON/OFF button to turn on the light

2. Press + - Buttons on the right top corner to manually dim up or down the light.

3. Press TEST(2S) button to test if the sensor has been well connected; it will keep light ON for 2S only.

HD03R 遥控使用步骤

感应设置
1、ON/OFF键开灯

2、 RESET键进入感应设置

3、 选择各个功能区不同的数值参数进行设置（依次分别是灵敏度，延时时间， 守候亮度，守候时间与光感阀值）

4、设置完成，自动保存在遥控器内。感应器即执行操作

以上方法通用于测试或者单独几个感应器时的操作；
如果是对全部感应器进行设置，建议使用此遥控器的特色功能"一键存储与发送"，步骤如下:

遥控器对准第一个感应器做如下操作:
1、ON/OFF键开灯

2、 RESET键进入感应设置

3、 START键开启设置记忆功能

4、选择各个功能区不同的数值参数进行设置（依次分别是灵敏度，延时时间，守候亮度，守候时间与光感阀值）

5、设置完成按MEMORY键

6、 APPLY键直接发送设置

7、设置完成

操作第二、三台和后面的感应器时做如下操作:
1、ON/OFF键开灯

2、RESET键进入感应设置

3、APPLY键直接发送设置

4、设置完成

手动调光
1、ON/OFF键开灯

2、按右上角+ - 键自动加减调光；常亮状态下的最低亮度60%，最高亮度100%