

## Technical Sheet For KNX Presence Sensor, Microwave

CSBPM-04/00.1.00  
CSBPM-04/00.1.01

The worldwide STANDARD for home and building control

### CHARACTERISTICS

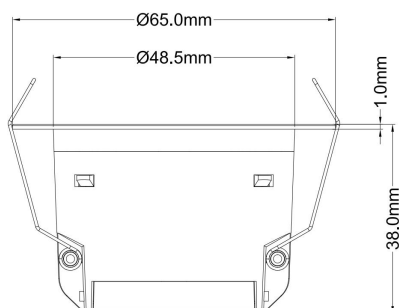
- Different behavioral detection of normal movement, tiny movement and static presence, with 24GHz microwave detection technology
- Sensitivity is configurable and can be adjusted by day/night
- Work modes of master/slave
- Up to 4 presence control outputs, and the first channel with 3 levels control
- Automatic mode and semi-automatic mode
- Built-in brightness sensor, and control the light via brightness threshold and also control logically with presence signal
- Individual presence control telegram according to Day/Night
- Built-in temperature and humidity sensors
- Constant lighting control
- RTC functions for heating/cooling system, as well as support additional heating/cooling
- Logic functions and scene group functions
- Support the KNX Data Secure

### PARAMETERS

<b>Power Supply</b>	Bus voltage	21-30V DC, via the KNX bus
	Bus current	<4.5mA / 24V; <4mA / 30V
	Bus consumption	<120mW
<b>Auxiliary supply</b>	Voltage	12-30V DC
	Current	<24.5mA / 24V; <20mA / 30V
	Consumption	<0.6W
<b>Detection range</b>	Illuminance	0-2000lux
	Temperature	0-40°C
	Humidity	20-90%
<b>Connection</b>	KNX	Bus connection terminal
	Auxiliary supply	KNX auxiliary connection terminal
<b>Operation and display</b>	Programming button and red LED	For assigning the physical address
	Green LED flashing	Display the device running normally
<b>Temperature</b>	Operation	- 5 °C ... + 45 °C
	Storage	- 25 °C ... + 55 °C
	Transport	- 25 °C ... + 70 °C

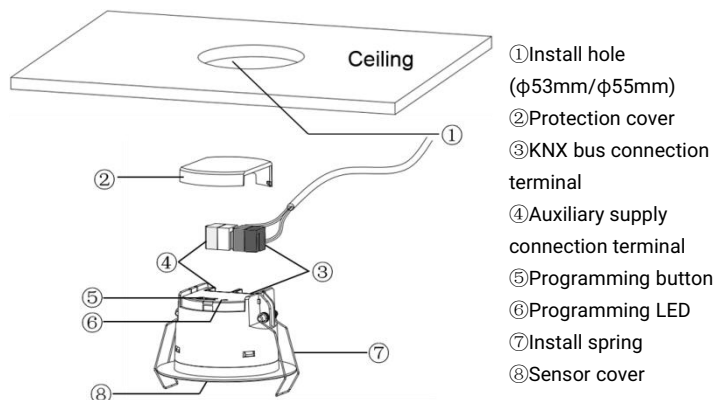
<b>Environment</b>	Humidity	<93%, except dewing
<b>Mounting</b>	Ceiling mounted	

### DIMENSIONS

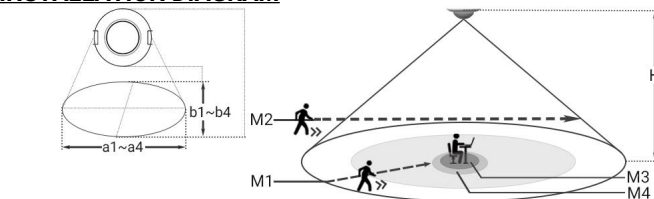


Model	Dimension	Weight
CSBPM-04/00.1.0x	φ65 x 38 mm	0.05kg

### DESCRIPTIONS



### INSTALLATION DIAGRAM



H	M1		M2	
	a1	b1	a2	b2
2.5	6	5	7	5.5
3	7	6.5	8	7.5
4	8.5	7.5	8.3	8.5
H	M3		M4	
	a3	b3	a4	b4
2.5	6.5	5	6.5	6
3	7.5	6	8	6
4	8.5	7.5	8.5	7.5

The Installation height is 3m:

Sensitivity	S1	S2	M3	M4
Lowest	2.8	2.5	3.5	4.5
Low	3.5	3	4	5.2
Medium	5	4	5	6.5
High	6	5	6	7
Highest	7	6	7.5	8

Above table shows the maximum reachable range in meter of the different areas for different installation heights (H) or sensitivity:

a: the wide range of detection diameter; b: the narrow range of detection diameter; a, b is corresponds to direction of sensor installation

M1: walking straight to sensor; M2: walking across sensor; M3: tiny movement; M4: static presence; S1: walk slowly, 0.3m/s; S2: walk fast, 1.0m/s.

**Note: the data is referred from internal laboratory, there may be differences in results depending on the environment and object.**

### INSTALLATION FIGURE

1. The distance between product and wireless devices (such as router) is suggested to be greater than 1m.
2. Product installation should be far away from large metal equipment, the pipes, air-conditioner outlet, exhaust outlet and etc., to avoid vibration of the equipment affecting detection.
3. Product should avoid closing to AC drive power supply, and be far away from high-power devices (such as rectifier bridge of drive power, transformer, switch tube and etc.) to avoid the high frequency signals interfering with the normal operation of the microwave module.
4. Radar is a wireless electromagnetic wave detection sensor, the movement or vibration of an active non-living object may cause false alarm, such as oscillating fan, moving cars / pets, swinging metal curtains and etc. Because metal reflects radar wave and causes false alarm, avoid installing in all-metal environment.

5. Radar wave will penetrate clothes for the human body, curtain, thin wooden planks (lower than 3mm), glass and etc., user should reasonably install the sensor position according to the application requirements.
6. The orientation of sensor cannot be installed in where near object, such as ceiling light, pipes and etc. Otherwise, it may affect the detection result.

### IMPOFORMATION

Installation and commissioning of the device may only be carried out by trained electricians. The relevant standards, directives, regulations and instructions must be observed when planning and implementing the electrical installation.

● Protect the device against moisture, dirt and damage during transport, storage and operation!

● Do not operate the device outside the specified technical data (e.g. temperature range)!

Should the device become soiled, it may be cleaned with a dry cloth. If this does not suffice, a cloth lightly moistened with soap solution may be used. On no account should caustic agents or solvents be used.

KNX 微波存在传感器技术规格书

适用型号：  
CSBPM-04/00.1.00  
CSBPM-04/00.1.01

国际标准的家庭和楼宇控制系统

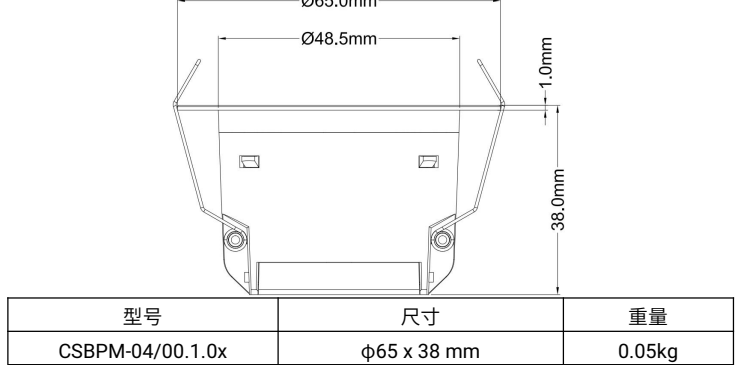
产品功能

- 采用 24GHz 微波的检测技术，能支持移动、微动和静止存在的不同行为探测
- 检测灵敏度可配置，且可根据白天/夜晚信号而灵活调节
- 支持主从的工作模式
- 可配置多达 4 个通道的移动控制功能，其中第 1 通道支持三级控制
- 支持全自动和半自动的模式功能
- 内置光照度传感器，且可根据光照度阈值进行灯光控制，还可与移动信号联动进行逻辑控制
- 支持根据白天/夜晚配置发送不同的移动控制报文
- 内置温湿度检测传感器
- 支持恒照度控制
- 支持温控器功能，用于加热/制冷系统，同时支持额外的加热/制冷阀门控制
- 支持逻辑和场景组功能
- 支持 KNX 安全协议

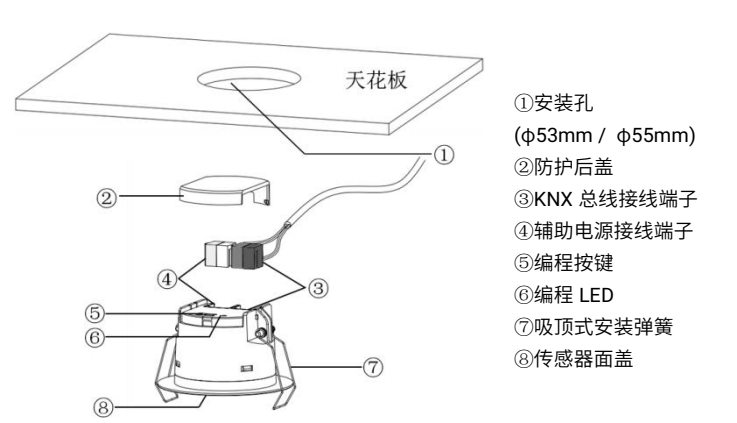
技术参数

电 源	总线电压	21-30V DC，由 KNX 总线提供
	总线电流	<4.5mA / 24V；<4mA / 30V
	总线功耗	<120mW
辅助电源	电压	12-30V DC
	电流	<24.5mA / 24V；<20mA / 30V
	功耗	<0.6W
检测范围	光照度	0-2000lux
	温度	0-40℃
	湿度	20-90%
连 接	KNX	总线连接端子（红/黑）
	辅助供电	KNX 辅助供电端子（黄/白）
操作和指示	编程按键和红色 LED	分配物理地址
	绿色 LED 闪烁	指示设备应用层运行正常
温度范围	运行	- 5 °C ... + 45 °C
	存储	-25 °C ... + 55 °C
	运输	- 25 °C ... + 70 °C
环 境 安 装	湿度	<93%，结露除外
	吸顶式安装	

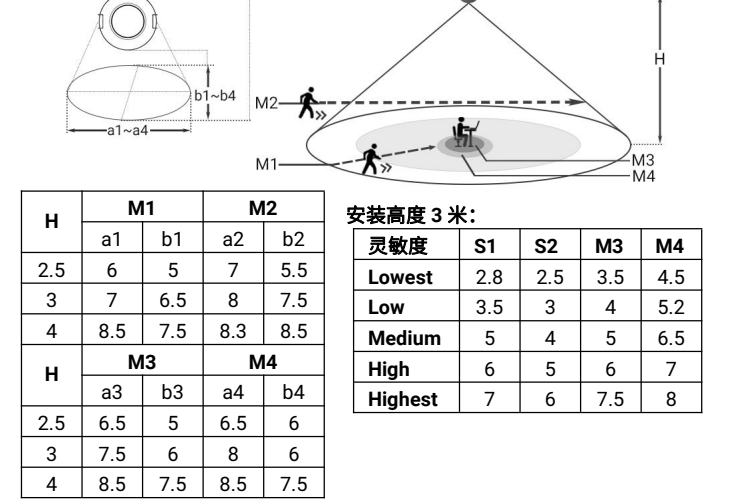
尺寸规格



接线图



安装感应示意图



上表显示不同安装高度(H)/灵敏度所对应的最大感应范围(米)：  
a：检测直径的宽边；b：检测直径的窄边；a、b 对应于传感器安装方向  
M1：走向传感器；M2：经过传感器；M3：微动；M4：存在；  
S1：慢走，0.3m/s；S2：快走，1.0m/s。

注意：仅参考内部实验室测试的数据，不同环境和物体，可能存在结果差异。

安装说明

1. 产品与路由器等无线设备的安装间距建议大于 1m。
2. 产品安装尽量远离大型金属设备、管道、空调出风口、抽风口、排烟机等场景，以免设备震动影响探测效果。
3. 产品应避免靠近交流驱动电源，应远离驱动电源的整流桥、变压器、开关管等大功率器件，以免高频率信号干扰微波模块正常工作。
4. 雷达属于无线电电磁波探测传感器，活动的非生命体产生的运动或者震动可能会导致误报，例如摇头风扇，移动的车辆、宠物，金属窗帘摆动等。同时因为金属会反射雷达波造成误报，所以要避免安装在全金属的环境。
5. 雷达电磁波会穿透人体的衣服，窗帘，薄木板（低于 3mm），玻璃等，用户需要根据应用效果需求，合理布点传感器位置。
6. 传感器的感应探头朝向内不能有遮挡物（如吊灯、管道等），否则可能会影响产品的正常工作。

重要提示

- 安装和调试设备只能由合格的熟练电工来操作。在计划与实施电气安装的过程中相关的标准、指令、规则和指示都要严格执行。
- 需要避免器件在运输、储存、使用的过程中受潮、脏污以及受损。
  - 不要使器件运行在指定的技术指标之外（例如温度范围）。
- 当设备脏污时，只可以使用干燥的布来清洁。如果这样不足以清洁干净,可以使用湿布蘸少许肥皂溶液轻轻擦拭。绝不能使用碱剂或者腐蚀性溶剂。