



Figure 1. KNX Wall Mount Outdoor Microwave Sensor

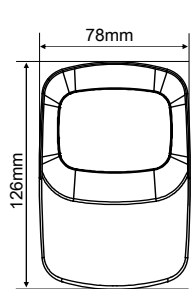


Figure 2. Dimensions-Front View

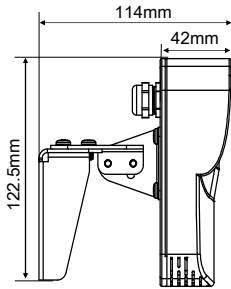


Figure 3. Dimensions-Side View

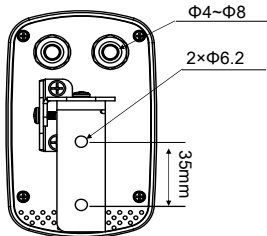
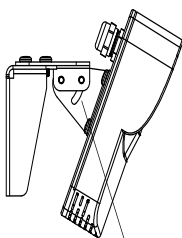
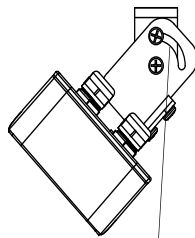


Figure 4. Dimensions-Back View



Adjustable range is  $\pm 25^\circ$   
 Figure 5. Adjustable Range in Upwards and Downwards



Adjustable range is  $\pm 45^\circ$   
 Figure 6. Adjustable Range on Left and Right

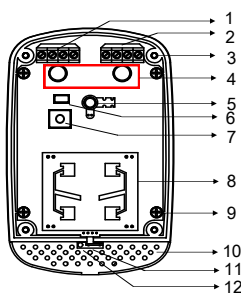


Figure 7. Interior View

## Overview

KNX Wall Mount Outdoor Microwave Sensor (See Figure 1) contains four independent logic blocks and one combined logic block. Supported input logical conditions include: Microwave sensing status, brightness value, temperature value, dry contact status and external telegram. The sensor can control lighting, curtain and threshold value.

## Functions

- With 2CH constant brightness control function, the sensor supports 4 preset constant values and forced operation dimming.
- 5 logic blocks with 10 target output for each and supports dry contacts and external telegram locking/unlocking, or delay unlocking. Telegram locking/unlocking can be set to send on/off telegram.
- Control types: Switch control, Absolute dimming control, Curtain control, Alarm control, Percentage control, Sequence control, Scene control, String(14 bytes) control, Logic combination control.
- 5 logical condition sources: Microwave sensing status, brightness value, temperature value, dry contact status and external telegram.
- 2 logical relations: AND, OR
- 2 working modes: Single mode and Master & Slave mode.
- 2 dry contact input interfaces can work as dry contact or LED indicators. The control types of dry contact target output can be set as switch, dimming and scene.
- The logic validity can be set through external telegram input.
- The sensor can be set to automatic or semi-automatic mode.

## Important Notes

- Installation - installed outdoor, be away from rain, or install shelter panels if needed.
- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.
- KNX Bus voltage - 21-30V DC.

## Product Information

**Dimensions - See Figure 2 - 4**

**Components - See Figure 5 - 6**

**Interior View - See Figure 7**

1. KNX terminal
2. Dry contact terminal, from left to right: K2 GND GND K1
3. Screw hole
4. Wiring hole
5. Lux sensor
6. Indicator
7. Programming button
8. Microwave sensor
9. Screw for fixing PCB
10. Vents
11. Humidity sensor
12. Temperature sensor

**Microwave Detection Range - See Figure 8**

**Installation - See Figure 9 - 11**

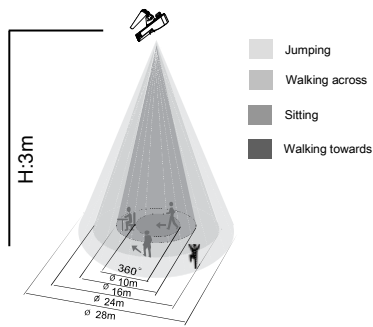
- Step 1. Fix the Wall Mount Outdoor Microwave Sensor on the bracket with screws.
- Step 2. Install the sensor fixed on the bracket in an appropriate position with screws.

## Safety Precautions

- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- HDL will not be responsible for any consequence caused by the inexpert or faulty installation and wiring methods, which are not in accordance with the instructions contained in this operating instruction.
- Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.
- Please contact our after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to this warranty.

## Package Contents

M/WS05.1\*1 / Mounting bracket\*1 / Screw(M4\*6mm)\*4 / Screw(M4\*10mm)\*2 / Screw(M6\*50mm)\*2 / Silica gel stopper\*1 / Datasheet\*1



Detection Range (At 26°C)

Mounting height	Walking towards	Sitting	Walking across	Jumping
3m	10m	16m	24m	28m

Figure 8. Microwave Detection Range

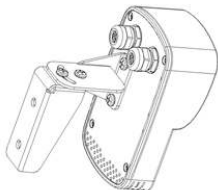


Figure 9



Figure 10

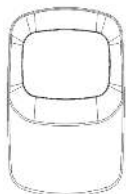


Figure 11

## Technical Data

### Basic Parameters

Working voltage	21~30V DC
Working current	20mA/30V DC
Communication	KNX
Cable diameter of KNX terminal	0.6 - 0.8mm
Microwave detection range	Φ28m (Installation height:3m)
Temperature detection range	-30°C~70°C
Humidity detection range	20~95%RH
Brightness detection range	0~35000LUX

### External Environment

Working temperature	-5°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C
Storage relative humidity	≤93%

### Specifications

Dimensions	126×78×114(mm)
Net weight	360g
Housing material	ASA, stainless steel
Installation	Wall mount (See Figure 9 - 11)
Protection rating (Compliant with EN 60529)	IP54

### 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.

## KNX Cable Guide

KNX	KNX Cable
-	Black
+	Red

#### Technical support

E-mail: [hdltickets@hdlautomation.com](mailto:hdltickets@hdlautomation.com)  
 Website: <https://www.hdlautomation.com>

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