

Specification

Product series: Low-mounting PIR motion sensor (KNX version)

Product model: MSA017K IR

Product version: V1.0

Version	Release/ change Date	Publishing
V1.0	2024.05.14	Jacky

【Product Description】

MSA017K IR is a low-mounting PIR motion sensor with daylight detection function and KNX output. Combined with the unique software algorithm of Merrytek, it can accurately detect human movements in almost all indoor spaces to trigger smart scene application by KNX communication in smart homes, smart hotels, and smart offices.

【Product Feature】

- PIR motion detection
- KNX bus power and KNX communication available
- Daylight sensor detection available
- Detection area, hold time can be set by remote or ETS
- Max detection range: 6-10m in diameter
- 6m max mounting height
- Warehouse, workshop and lobby motion detection highly recommended
- Flush mounting and surface mounting available



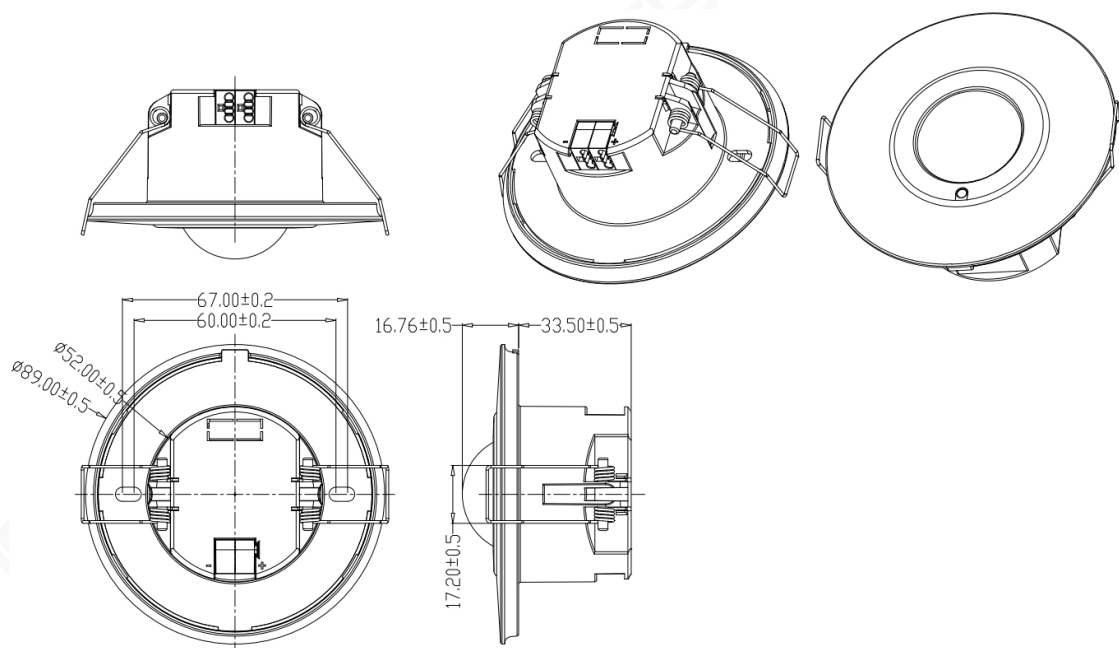
【Dimension】

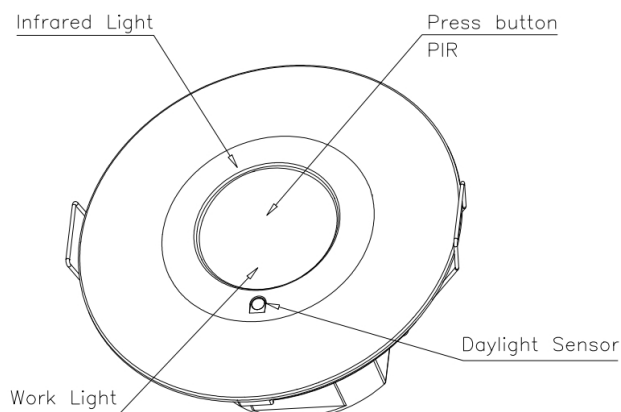
- Product size: $\phi 89 \times 34 \text{mm}$
- Connection interface: 4-pin KNX terminal

【Parameter】

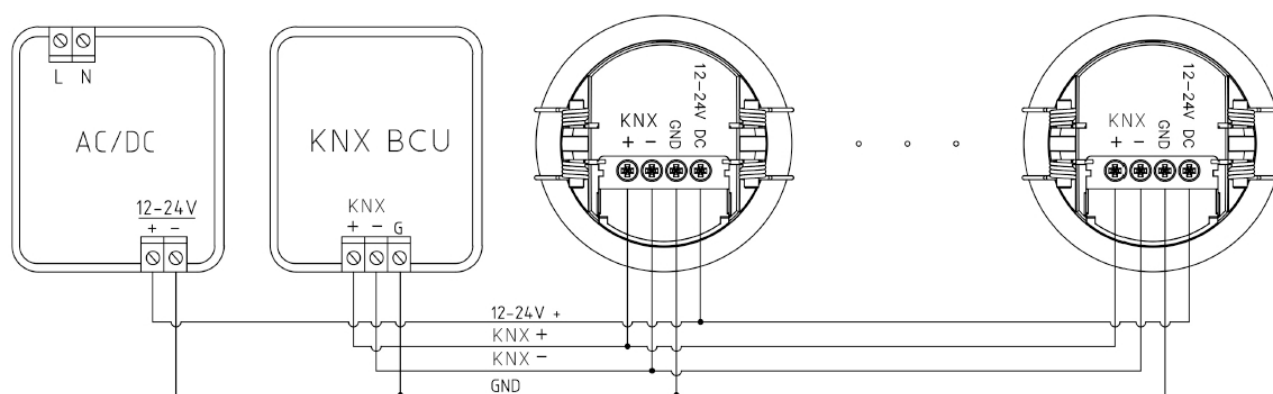
Input/Output	Input voltage	21-30V DC KNX bus power
	KNX current	≤10mA
	Consumption	≤0.5W @24V DC
Sensor parameter	Function	PIR motion detection+ daylight sensor
	Detection Area	ETS setting:8%/16%/24%/32%/40%/48%/56%/64%/72%/80%/88%/100%
	Hold Time	ETS setting
	Radius detection range(based on 100% sensitivity)	2.5-4m @25℃ based on 3m mounting height
	Remote control	Available
	Mounting height	2-6m typical value:3m
Application environment	Drill hole	Φ60mm
	Working temperature	-25℃...+50℃(detection range might differ based on different temperature)
	Storage temperature	-40℃~+80℃
	Warranty	3 years (available based on product quality problem)
Certificate Standard	Certificate	Compliant to CE
	Environmental requirements	Compliant to RoHS
	IP rating	IP20
"N/A" means not available		

【Dimension and Function diagram】





【Wiring Diagram & Recommendations】



Wiring recommendations:

1. KNX bus wiring suggestion hand in hand to the end, star or tree wiring is not recommended to ensure the stability of signal transmission.
2. KNX bus wiring wire recommends KNX standard EIB shielded wire or Category 6 network cable, the length of the bus wiring is recommended not to exceed 400 meters, and the number of sensor connected to a bus is recommended to not exceed 12.
3. The number of sensors connected to a bus needs to fully consider the current load capacity of the power supply: that is the sum of the currents of all KNX devices (including sensors) shall not be greater than the load current of the KNX power supply.

【Start Process & Initialization】

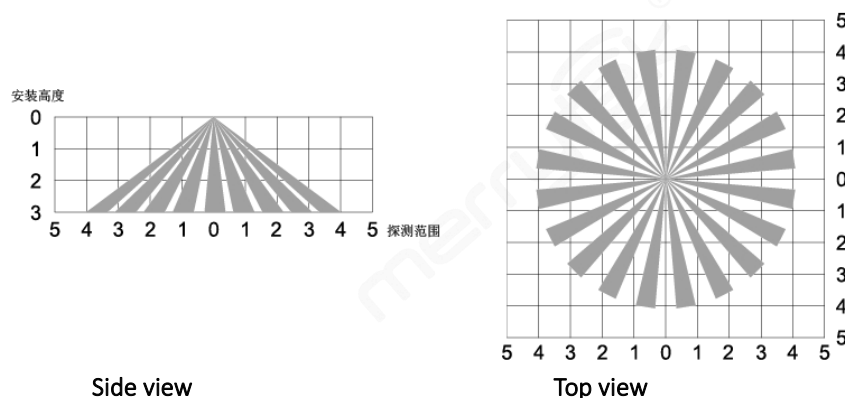
After routing the physical addresses and setting the channel parameters, follow these steps:

- (1) Connect Bus interface;
- (2) Set Bus and auxiliary power on (note: please make sure that product has auxiliary power supply, otherwise the device may not work properly);
- (3) Press the programming switch of the product, the LED light will turn red;
- (4) Use the bus interface to download the physical address through the ETS software. The programming LED light is off to indicate that the physical address download is successfully completed;
- (5) Download the application after setting the required application parameters.
- (6) After downloading the application, the product goes into initialization. During initialization, detection function is disable. After 20S, the initialization is completed, and the product works normally;

Note: Please use the latest version of ETS 5 or 5.7.2 version. Please obtain the ETS engineering configuration file of this sensor from our sales staff.

【Detection radiation】

MSA017K IR is highly recommended ceiling flush mounting and its detection radiation is as below shows:

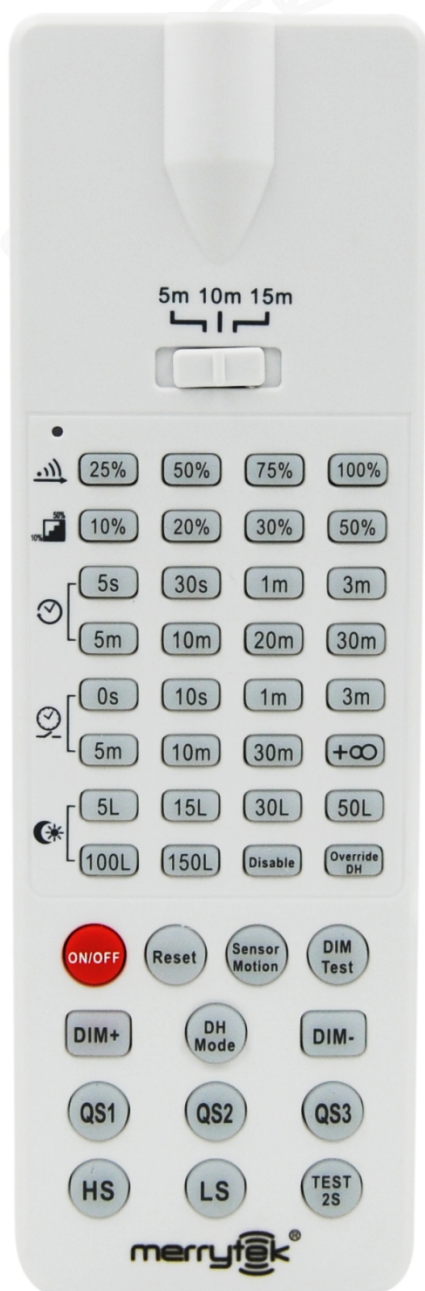


【Detection Signal】

The product detects human moving signals and below is a description of the moving signals:

- **Moving signal:** detect the human significant moving (walking) in the detection area.

【Remote manual】



Detection range: 25%/50%/75%/100%

Hold time: 5s/30s/1min/3min/5min/10min/20min/30min

Daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable

ON/OFF: disable sense function

Sensor motion: enable sense function

Reset: all parameter back as factory setting

HS: turn on indicator

LS: turn off indicator

【Disclaimer】

Due to the complexity of product technology and differences in application environment, it is difficult to guarantee a completely accurate or complete description, so this specification is only for user reference. We will reserve the right to make changes to the product specifications without notifying the user, and do not make any commitments and guarantees in the legal sense. At the same time, our company encourages users to supplement or modify the contents of our specifications after using our products.