Multifunctional presence sensor
User Manual

KTE2MLS-T3

Safety instructions

● Before installation, please read user manual carefully and observe relevant standards, directives, regulations and instructions.
● Electrical equipment must be installed and programmed by qualified technicians only.
● This device is manufactured according to the relevant technical specifications and have CE.
● For more information of this product, please contact the technical engineer of manufacturer.
● Users are not permitted to alter and maintain the product without the authorization of manufacturer.
● Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

Product Overview

The multi-functional sensor KTE2MLS-T3 has the functions of human body sensing, illuminance detection and constant illuminance control. It is a 24GHz radar sensor based on a large-beam orthogonal antenna, which has a high antenna gain and a wide sensing range. Combined with a unique software algorithm and the automotive-grade FMCW radar modulation mode, it can achieve precise detection of the subtle movements brought about by the human vital signs in almost all indoor spaces. Furthermore, based on KNX communication, it provides fast and accurate front-end sensing input for current smart home scenarios based on human presence, as well as for smart hotels, smart offices and other scenarios.
It adopts the method of indoor ceiling embedded installation (concealed installation). The trigger delay time, brightness threshold and constant illuminance brightness value can be adjusted, making it more suitable for office areas, conference rooms and other places. The day/night function can be realized by setting the brightness threshold. At the same time, the constant illuminance function can be turned on/off according to human body sensing to achieve a constant brightness in the controlled area.

Product Features

● Adopt live body respiration presence and stillness detection.
● Have master-slave and constant illuminance control functions.
● Use FMCW to detect the presence state of the human body.
● Adopt German radio frequency technology.
● Accurately output signals indicating the presence or absence of people.
● Support the function of reporting illuminance sensing data and setting the illuminance sensing threshold.
● It is an internationally common 24GHz ISM band millimeter-wave radar.
● The maximum range of movement/slight movement/presence sensing: 1-8 meters in diameter.
● The sensing ranges of respiration presence, slight movement sensing and movement sensing highly overlap.
● With a circular radiation pattern, it can effectively realize the full-space management of a single unit.
● The switching time from the absence of people to the presence of people: within 0.5 seconds.
● The switching time from the presence of people to the absence of people: more than 15 seconds.
● Support hidden embedded installation.
● Set the sensing parameters through ETS and remote control.
● Realize intelligent sensing functions based on millimeter-wave radar technology.
● With ultra-low radio frequency power output, it is harmless to human health.

Installation instructions

1. Make a hole at the position on the ceiling where the installation is required. The hole size is: φ47-55mm.
2. After connecting the auxiliary power supply and the KNX bus terminal to the sensor, insert the sensor into the hole and fix it with a spring buckle.
3. If it is necessary to repair or replace the sensor, please operate carefully to prevent being pinched by the spring buckle.

Programming instructions

1. Select the corresponding product database and import it into ETS.
2. Add the device to the project created in ETS.
3. Press the programming button of the device, and download its physical address through ETS. After the download is completed, the indicator lights of the programming button and the lens will turn off.
4. Open the device database. After setting its parameters and associating the corresponding group objects, perform the application download.
5. After changing the physical address of the device, repeat "Step 3".
6. After modifying the parameter settings or re - associating the "group objects", repeat "Step 4" to implement new functions.

Presence sensing range

1. Maximum detection distance: 8 meters in diameter, adjustable via ETS.
2. This function is supported only when the delay time is set to be ≥ 30 seconds.

Product parameters

Input/Output	Auxiliary voltage range	12-30V DC
	Rated power	1W
	KNX power supply	21-30V
	KNX current	≤10MA
	Output signal	KNX Bus Communication
Sensing parameters	Operating frequency	24GHz-24.25GHz　frequency band
	Transmission power	5mW Max
	Sensing range	Settings via ETS/Remote Control; Levels 1 to 10
	Delay setting	Settings via ETS/Remote Control: 5S-600Min
	Detection range	Settings via ETS/Remote Control：1-8m
	Installation height	2.7m，typical value：4m
Product parameters	Remote Control Function	Support
	Operation	0℃...+50℃
	Storage	-40℃...80℃　humidity：≤85%
	Installation method	Embedded snap - in installation
	Opening size	φ:47-55mm H:35mm
	Type of protection	IP20
	Programming mode	S-mode

Product dimensions

Φ63.00±0.3
Φ47.00±0.3
1.50±0.1
34.50±0.5
43.86±1.0
14.70±0.2

Sensing range

Installation height of 4m
Installation height of 3m
8m
9m
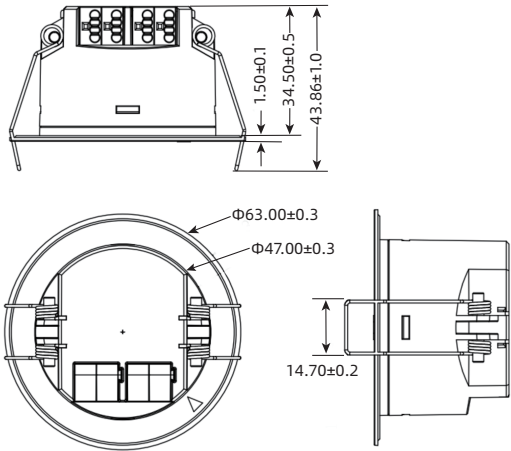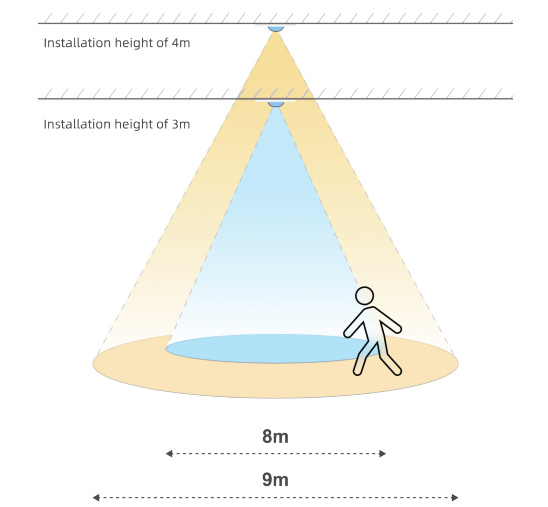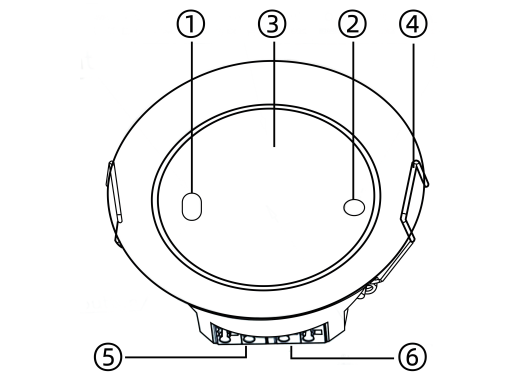
Operating instructions

① Programming button and programming button indicator light
② Illuminance sensing detection probe
③ Radar sensing area
④ Embedded snap fastener
⑤ KNX terminal
⑥ Auxiliary power supply terminal

Operating instructions

【Startup Process and Initialization】
After the physical addresses are assigned through wiring and the parameters of each channel are set, proceed with the following steps:
(1) Connect the bus interface.
(2) Power on the bus and the auxiliary power supply. (Note: Ensure that the sensor is provided with auxiliary power supply; otherwise, the device may not operate properly.)
(3) Press the programming switch of the device. The red programming LED will light up after pressing.
(4) Use the bus interface to download the physical address via the ETS software. When the programming LED goes out, it indicates that the physical address has been successfully downloaded.
(5) Set the required application parameters and then download the application program.
(6) After the application program is downloaded, the product enters the initialization phase. During initialization, it does not detect external sensing signals. The initialization is completed after 20 seconds, and the product starts to operate normally.