CONTACTLESS KNOWING ACT SENSOR
FOR AUTOMATIC DOORS

## DESCRIPTION

## RECESSED INSTALLATION



SURFACE INSTALLATION


## FEATURES



Antimicrobial front face
Multicoloured LED-feedback
IP65
Toggle-function
Audible feedback
Remote control adjustments
Application-focused settings through external signal input


## WIRING



* See page 3.


## ADJUSTMENTS



COLOUR LOGIC


## OUTPUT MODE

## PULSE MODE :

recommended for automatic doors applications


TOGGLE MODE: recommended for switch applications


## NORMALLY OPEN (NO)



NORMALLY CLOSED (NC)


## AUDIO ALERT

Detection activities an audio alert.

## CONTROL INPUT

Connect the input to an external signal to control the switch and make the LED red.
.
Input signal must be a dry contact (no voltage).



For restroom application, see application note for more details.


After unlocking, the red LED flashes and the sensor can be adjusted by remote control.


If the red LED flashes quickly after unlocking, you need to enter an access code from 1 to 4 digits. If you do not know the access code, cut and restore the power supply. During 1 minute, you can access the sensor without introducing any access code.


To end an adjustment session, always lock the sensor.

## SAVING AN ACCESS CODE

The access code is recommended for sensors installed close to each other.


DELETING AN ACCESS CODE


RESTORING TO FACTORY VALUES


## FIELD SIZE

FIELD SIZE

In order to change these settings by remote control, adjust the potentiometer to minimum.


## OUTPUT




[^0]

## Example :



| ANIMATION | F1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\square$ | $\square$ |  |  |  |  |  |  |


| BRIGHTNESS | (D) 1 | 23 |
| :---: | :---: | :---: |
|  | 央央 | - - - - - - |
| AUDIO ALERT |  |  |
| TONE | (-1) 1 | 2) 3 |
|  | $\cdots$ | WW WWO |

$\square$

## CONTROL INPUT（CLOSED）

COLOUR LOGIC Visual，audible feedback and output response when the control input is activated ：

LED ANIMATION FO 1

| DOOR CONTROL © | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | AUTO OPEN CLOSED RESTROOM |  |  |  |


| 1 | AUTO | A hand wave in front of the sensor opens the door． |
| :--- | :--- | :--- |
| 2 | OPEN | Door is maintained open． |
| 3 | CLOSED | Door is maintained closed． |
| 4 RESTROOM | Door is maintained closed and opens once when the control input is released． |  |

$\square$ Factory value
(a) 0 (必) 俊 (1)








## TROUBLE SHOOTING

| Door does not open even <br> when moving the hand <br> towards the sensor. | Bad or no power supply. | Check power supply. If LED switches on or flashes, <br> power connection is OK. |
| :--- | :--- | :--- |
|  | Detection range is too short. | Adjust the detection range. |
|  | Incorrect wiring / connection. | Remove any metal plates in front of the sensor. |
| Check wiring and relay connection. |  |  |
| Sensor stays in detection. | The environment influences the <br> good functioning of the sensor. | Remove any moving object around the sensor. |
| Incorrect wiring / connection. | Check wiring and relay connection. |  |
| Door remains open after | Wrong output mode. | Switch the output mode to PULSE. |
| detection/activation. | Incorrect wiring / connection. | Check wiring and relay connection. |

## TECHNICAL SPECIFICATIONS

| Technology | Microwave motion sensor |
| :---: | :---: |
| Radiated frequency | 24.150 GHz |
| Radiated power | $<20 \mathrm{dBm}$ EIRP |
| Radiated power density | $<5 \mathrm{~mW} / \mathrm{cm}^{2}$ |
| Detection range (hand) | +/- 10 to 60 cm (adjustable) * if movement towards sensor at $90^{\circ}$ |
| Detection mode | Motion (bidirectional) |
| Speed of target | Min. 5 Hz or $+/-3 \mathrm{~cm} / \mathrm{s}$, Max. 200 Hz or $+/-1.2 \mathrm{~m} / \mathrm{s}$ |
| Supply voltage | 12-24V AC +/-10\% |
| The Equipment must be powered by an approved Class II SELV limited power source. This requirement consists of the need for double insulation between primary voltages and the Equipment supply. The supply current should be limited to 1.5 A . | 12-24V DC +30\% / - 10\% |
| Mains frequency | $50-60 \mathrm{~Hz}$ |
| Power consumption | < 1.5 W |
| Output | Electronic relay (galvanic isolation - polarity free) |
| Max. voltage | 42V AC/DC |
| Max. current | 100 mA |
| Output hold time | 0.5 s (in PULSE mode) |
| Temperature range | $-20^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$ |
| Degree of protection | IP65 with front face and gasket mounted on a smooth surface |
| Material | $P C+A B S$ |
|  | Front face is treated with biomaster silver biocide tested to ISO 22196:2011. Please use biocides responsibly. |
| Dimension | Recessed version: 86*86*20.7mm Surface version: $80 * 80 * 21 \mathrm{~mm}$ |
| Recommended wiring cable | Stranded cable up to 16 AWG - $1.5 \mathrm{~mm}^{2}$ |

* An adjustment of the detection field below 10 cm is possible but the detection capability of the sensor can not be guaranteed. Technical specifications are subject to changes.

BEA | A-B Area, 3rd Floor | No. 1 Building, No. 5 Xinghai Road, Beijing Economic Technological Development Area, Beijing | China T +86 10 57761630/F +86 1062628775 / E info-as@beasensors.com / W asia.beasensors.com
BEA hereby declares that the Magic Switch is in compliance with European Directives 2014/53/EU (RED) and 2011/65/EU (RoHS).
The full text of the EU declaration of conformity is available on our website.


[^0]:    * Warning: 5 seconds before the end of the timer, the LED flashes and a signal tone sounds.

