MAGIC SWITCH IP65

Contactless knowing act sensor
for automatic doors

DESCRIPTION

Radar module

Output mode :
Toggle or Pulse

Front face

Antenna

Terminal block

Detection range
adjustment

«click»

WHAT YOU NEED

ISO7045 M4 x 25 mm

DIN 7981 N°6 X1/2
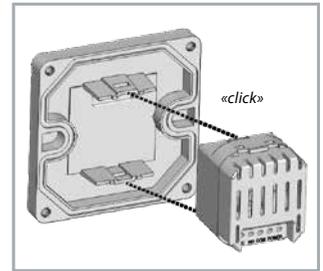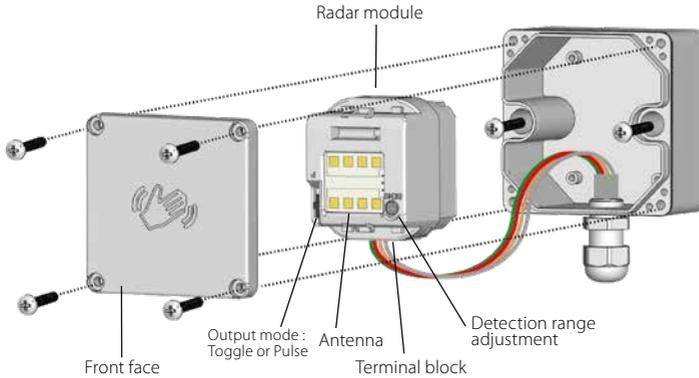
INSTALLATION TIPS
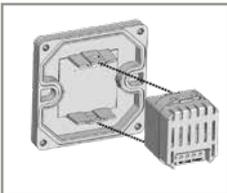
Assemble the module by clipping it to the front face.

If you need to unclip the radar module from the front face, use a screwdriver or a pencil.
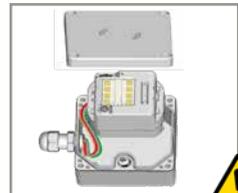
When you close the box, make sure the cables are not squeezed under the radar module !
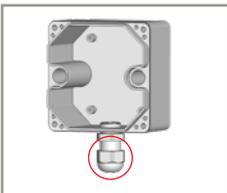
To ensure waterproofness, do not remove the cable gland.

Do not place the sensor in the opening range of the door.

Avoid moving objects in front of the sensor.

INSTALLATION
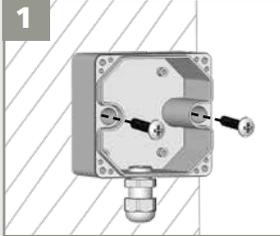
1

Screw the box to the wall.

2

NO POWER
NC COM
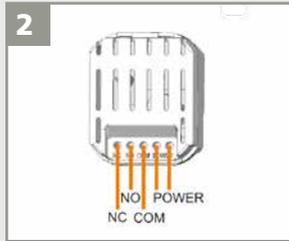
Connect the cables to the radar module.

3

10cm
50cm

10cm
50cm
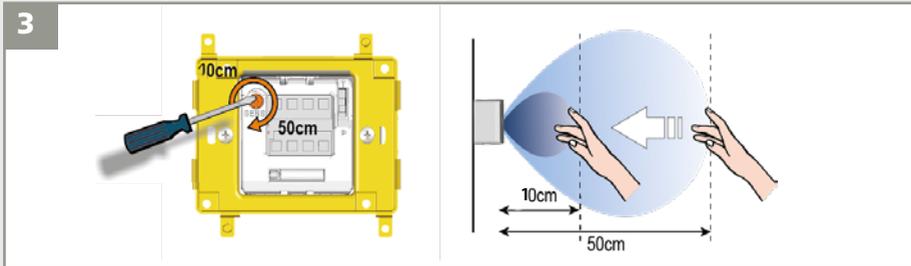
Adjust the detection range according to the future application. The detection range depends on the trajectory of movement, size and type (material) of the detected object.

4

T
P
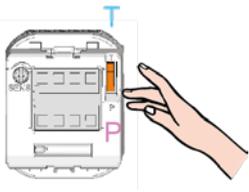
TOGGLE MODE (T): Recommended for switch applications. The first detection activates the relay output and the second detection deactivates it. In door applications the door remains open after the first activation.
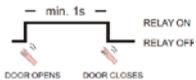
PULSE MODE (P): Recommended for automatic doors applications. The first detection activates the relay output for a short period of time (depending on the duration of the movement in front of the sensor).

— min. 1s —
RELAY ON
RELAY OFF
DOOR OPENS   DOOR CLOSES

RELAY ON
RELAY OFF
DOOR OPENS   DOOR OPENS
AND CLOSES   AND CLOSES

Make sure the output mode is set to PULSE-mode (P) for standard door applications.
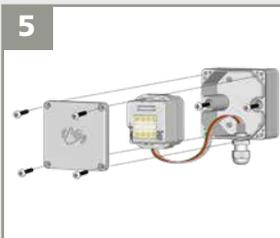
5

Screw the front face to close the box.
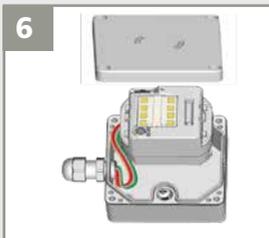
6

Make sure the cables are not squeezed under the radar module when you close the box.
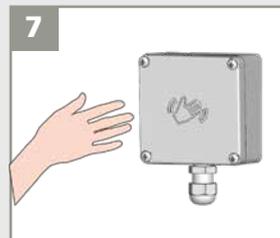
7

Test the good functioning of the sensor by moving the hand towards the sensor.

TROUBLESHOOTING

| The door does not open even when moving the hand towards the sensor. | ○ | Bad or no power supply. | | Check power supply. *If LED switches on or flashes, power connection is OK.* |
	○	Detection range is too small.		Adjust the detection range.
				Remove any metal plates in front of the sensor.
	✦	Wrong connection.		Check wiring and relay connection.
The door remains permanently open.	✦	The environment influences the good functioning of the sensor.		Remove any moving object close to the sensor.
	○	Wrong connection.		Check wiring and relay connection.
The door remains open after detection/activation.	✦	Wrong output mode.		Switch the output mode to PULSE mode.
	○	Wrong connection.		Check wiring and relay connection.

⚠ The LED is only visible when the front face is removed

TECHNICAL SPECIFICATIONS

Technology	Microwave motion sensor
Radiated frequency	24.150 GHz
Radiated power density	$\ll$ 5mW/cm²
Detection range (hand)	+/- 10 to 50 cm if movement towards sensor at 90° (adjustable)*
Detection mode	Motion (bidirectional)
Speed of target to create detection	Min. 5Hz or +/- 3cm/s Max. 200Hz or +/- 1.2m/s
Supply voltage	12 - 24V AC +/- 10% 12 - 24V DC +30% / - 10%
Mains frequency	50 - 60 Hz
Power consumption	< 1.2W
Output Max. voltage Max. current Max. switching power	Relay with switch-over contact (free of potential) 48V AC - 60V DC 1A (resistive) 30W (DC) / 48VA (AC)
Output hold time	0.5s (in PULSE mode)
Temperature range	-20°C to +55°C
Degree of protection	IP65
Norm conformity	RED 2014/53/EU and 2011/65/EU
Material	ABS / PC
Colour	White
Recommended wiring cable	Stranded cable up to 16 AWG - 1.5mm²

* An adjustment of the detection field below 10 cm is possible but the detection capability of the sensor can not be guaranteed.

Specifications are subject to change without prior notice

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CE   BEA hereby declares that the MAGIC SWITCH IP65 is in conformity with the basic requirements and the other relevant provisions of the directives 2014/53/EU et 2011/65/EU.

The complete declaration of conformity is available on our website.

EC countries: according to the directive 2012/19/EU for Waste Electrical and Electronic Equipment (WEEE)