



be@ux glas !

APEX AUTOMATIC SLIDING DOORS

# APEX AUTOMATIC SLIDING DOORS

## Features of General Controller

Automatic Sliding doors are specifically designed for :

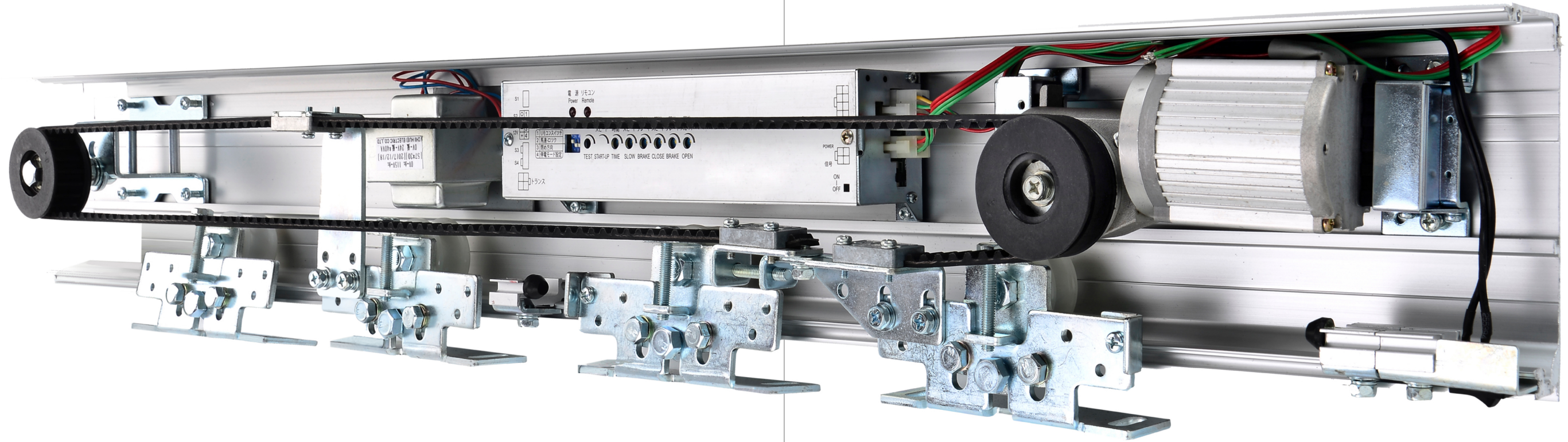
a variety of storefronts , banks , homes and access General buildings and public facilities and commercial spaces. Can be combined with frameless glass doors , wooden doors, iron frame doors , aluminum doors, so that APEX Automatic Sliding Door can save installation time and simple adjustment.

- The universal controller tests the running stroke each time the power is turned on.
- On/Off speed , on/off force , open position , door open stop time , open door test button , you can use the knob to set the parameters required for the automatic door.
- In severe weather conditions , the wind pressure design keeps the door in the closed position.
- Low noise design , less than 60 decibels, quiet operation.
- The system can be connected to various control devices , such as standby power supply , emergency open system , multi-function selector switch , anode lock , card reader , fingerprint machine , door open button , sensor , etc...

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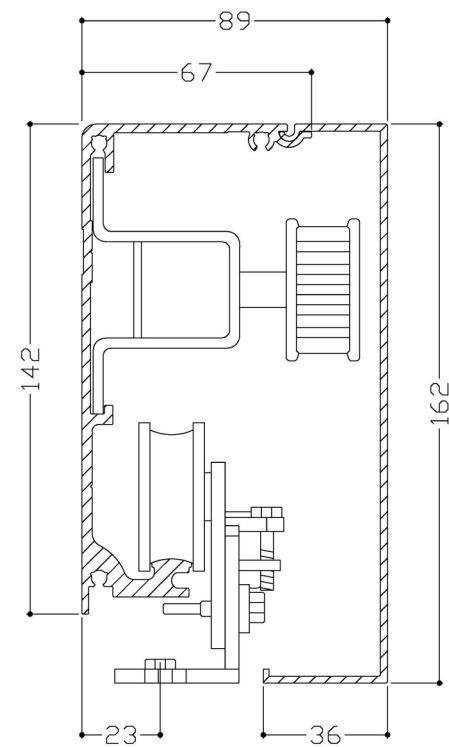
# AX-18-100-Series CE



## Specifications

Type	AX-120-01	AX-120-02
Door panel	Single Panel	Dual Panel
Door Weight	80kg x 1	80kg x 2
Door Width	500~2500mm	
Rail Length	3000mm	2000mm x 2
	4000mm	3000mm x 2
	6000mm	5600mm x 2
Opening Speed	200~600 mm/sec, adjustable	
Closing Speed	200~550 mm/sec, adjustable	
Power Supply	AC 90V~240V ; 50Hz, 60Hz	
Motor	DC MOTOR 24V/60W	
Belt	S8M high tension timing belt	
General Controller	Digital Logic Micro Processor	
Manual Opening Force	3kg Max	
Ambient Temperature	-20°C~55°C	
Noise Level	Max. 50dB	

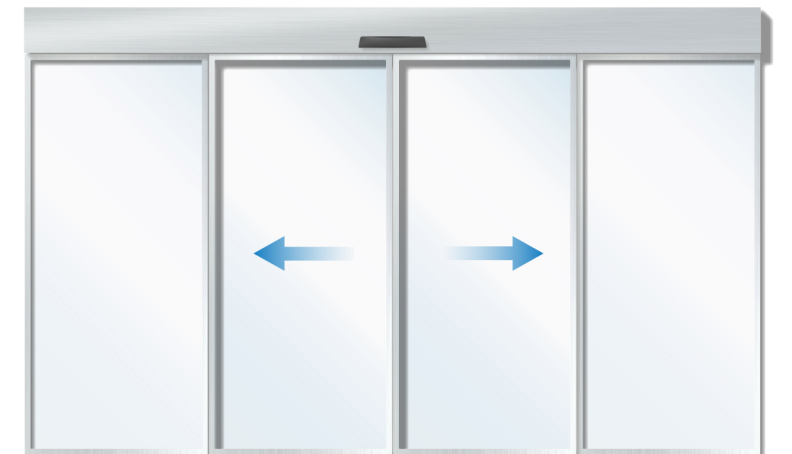
## Detail



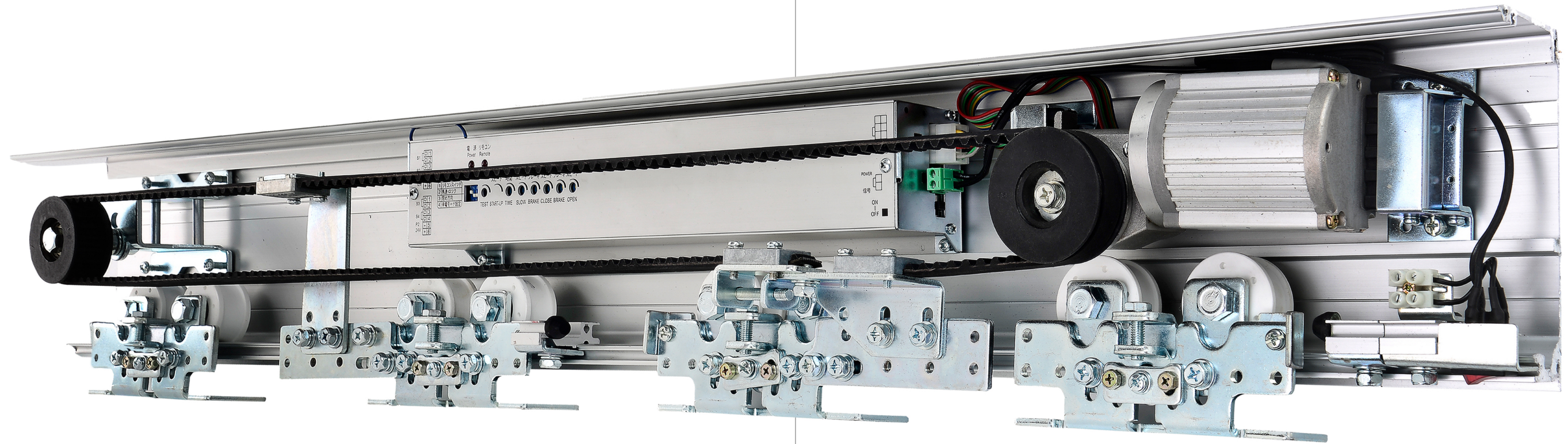
Single Panel 80kg x 1



Dual Panel 80kg x 2



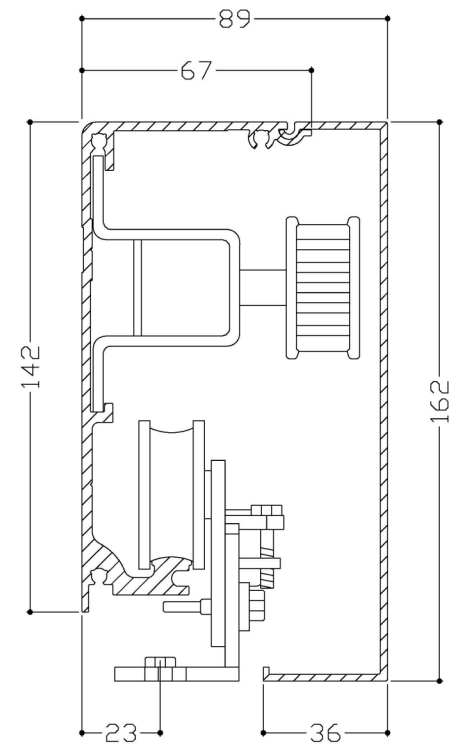
# AX-18-120-Series CE



## Specifications

Type	AX-120-01	AX-120-02
Door panel	Single Panel	Dual Panel
Door Weight	120kg x 1	120kg x 2
Door Width	500~2500mm	
Rail Length	3000mm	2000mm x 2
	4000mm	3000mm x 2
	6000mm	5600mm x 2
Opening Speed	200~600 mm/sec, adjustable	
Closing Speed	200~550 mm/sec, adjustable	
Power Supply	AC 90V~240V ; 50Hz, 60Hz	
Motor	DC MOTOR 24V/60W	
Belt	S8M high tension timing belt	
General Controller	Digital Logic Micro Processor	
Manual Opening Force	3kg Max	
Ambient Temperature	-20°C~55°C	
Noise Level	Max. 50dB	

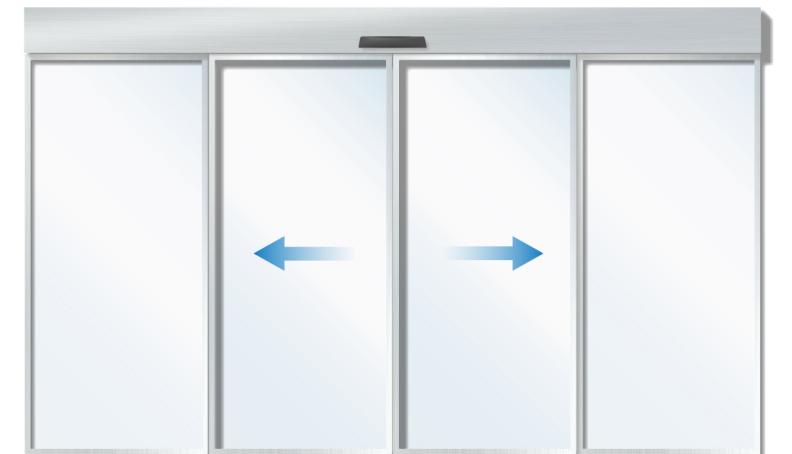
## Detail



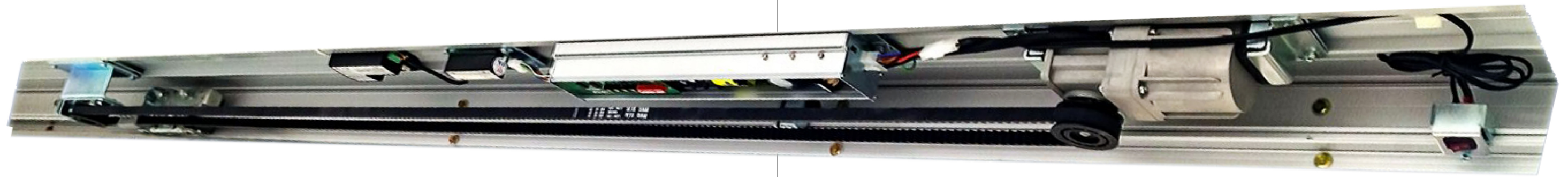
Single Panel 120kg x 1



Dual Panel 120kg x 2



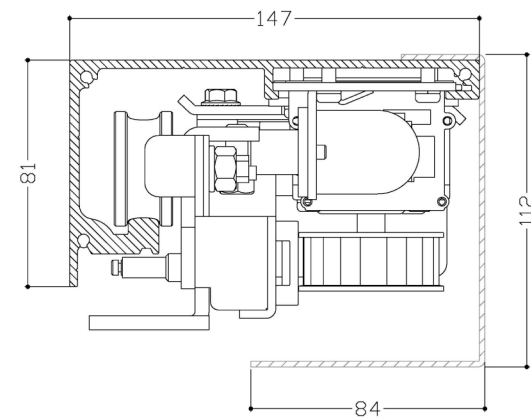
# AX-128-120-Series CE



## Specifications

Type	AX-128-1	AX-128-2
Door panel	Single Panel	Dual Panel
Door Weight	120kg x 1	120kg x 2
Door Width	500~2500mm	
Rail Length	3000mm	2000mm x 2
	4000mm	3000mm x 2
	6000mm	5600mm x 2
Opening Speed	200~600 mm/sec, adjustable	
Closing Speed	200~550 mm/sec, adjustable	
Power Supply	AC 90V~250V ; 50Hz, 60Hz	
Motor	DC MOTOR 24V/75W	
Belt	S8M high tension timing belt	
General Controller	Digital Logic Micro Processor	
Manual Opening Force	3kg Max	
Ambient Temperature	-20°C~55°C	
Noise Level	Max. 60dB	

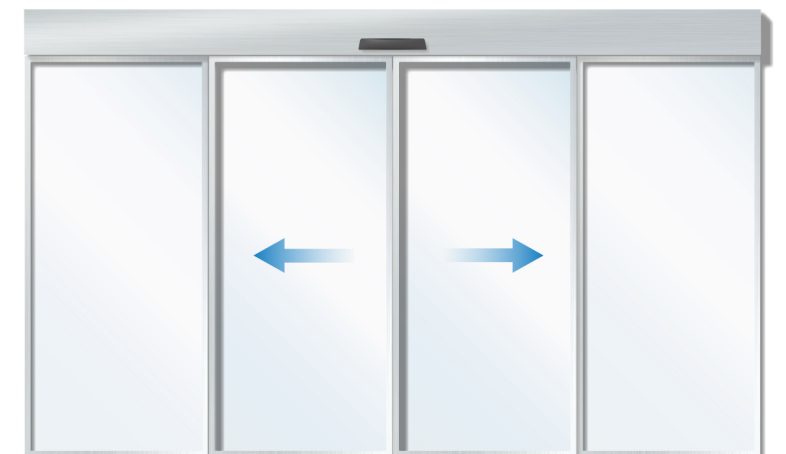
## Detail



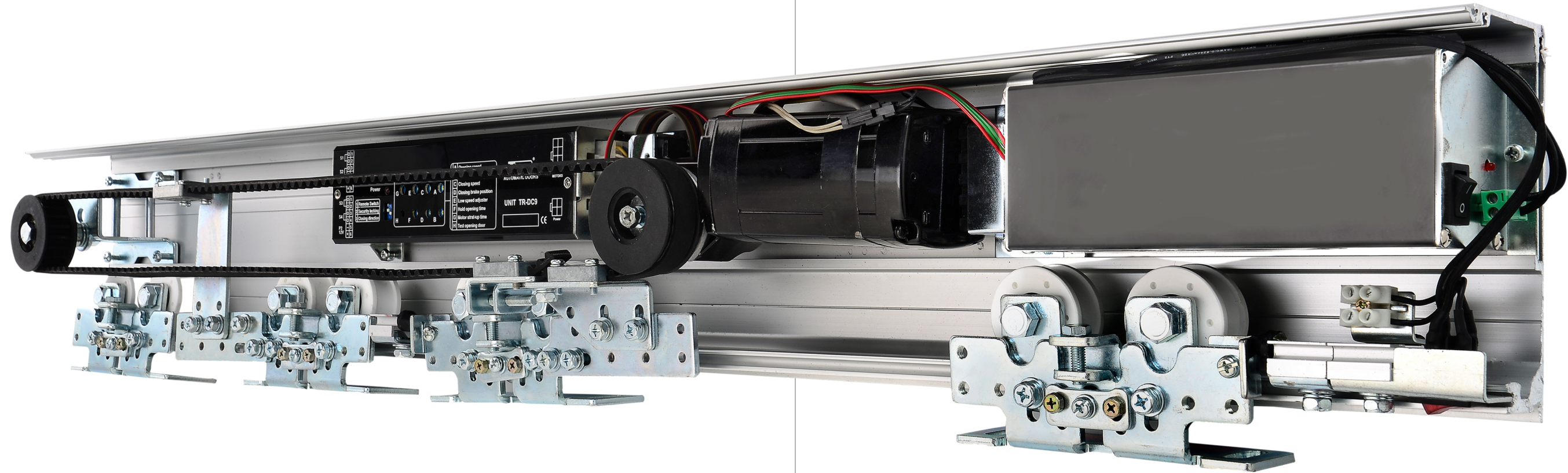
Single Panel 120kg x 1



Dual Panel 120kg x 2



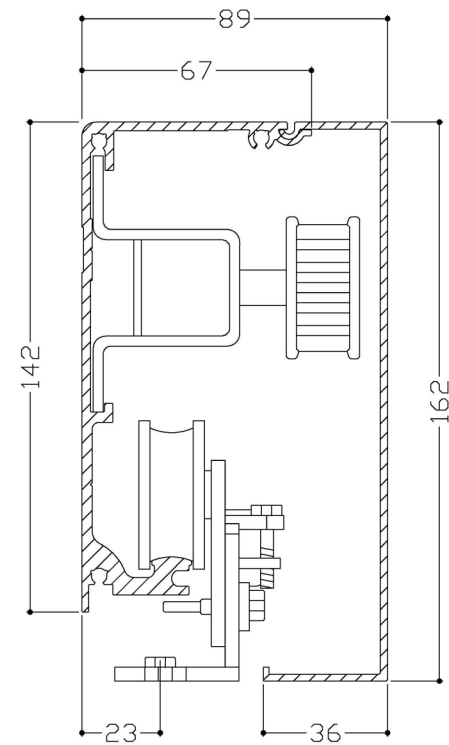
# AX-18-150-Series CE



## Specifications

Type	AX-18-150-01	AX-18-150-02
Door panel	Single Panel	Dual Panel
Door Weight	150kg x 1	140kg x 2
Door Width	500~2500mm	
Rail Length	3000mm	2000mm x 2
	4000mm	3000mm x 2
	6000mm	5600mm x 2
Opening Speed	200~600 mm/sec, adjustable	
Closing Speed	200~550 mm/sec, adjustable	
Power Supply	AC 90V~240V ; 50Hz, 60Hz	
Motor	DC MOTOR 24V/70W	
Belt	S8M high tension timing belt	
General Controller	Digital Logic Micro Processor	
Manual Opening Force	3kg Max	
Ambient Temperature	-20°C~55°C	
Noise Level	Max. 50dB	

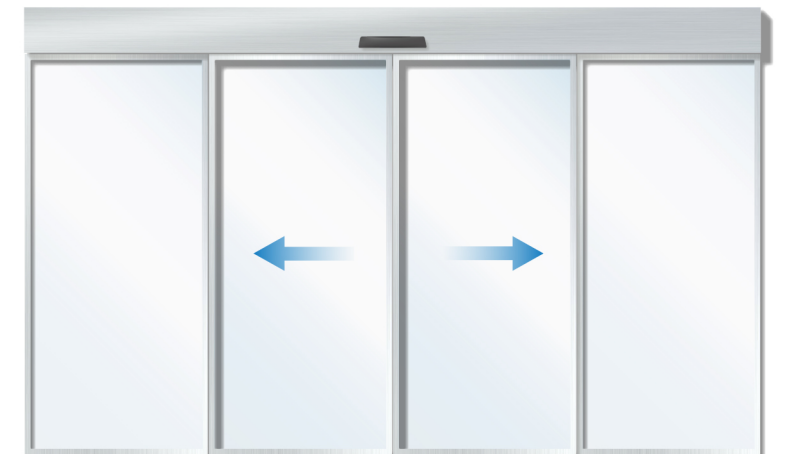
## Detail



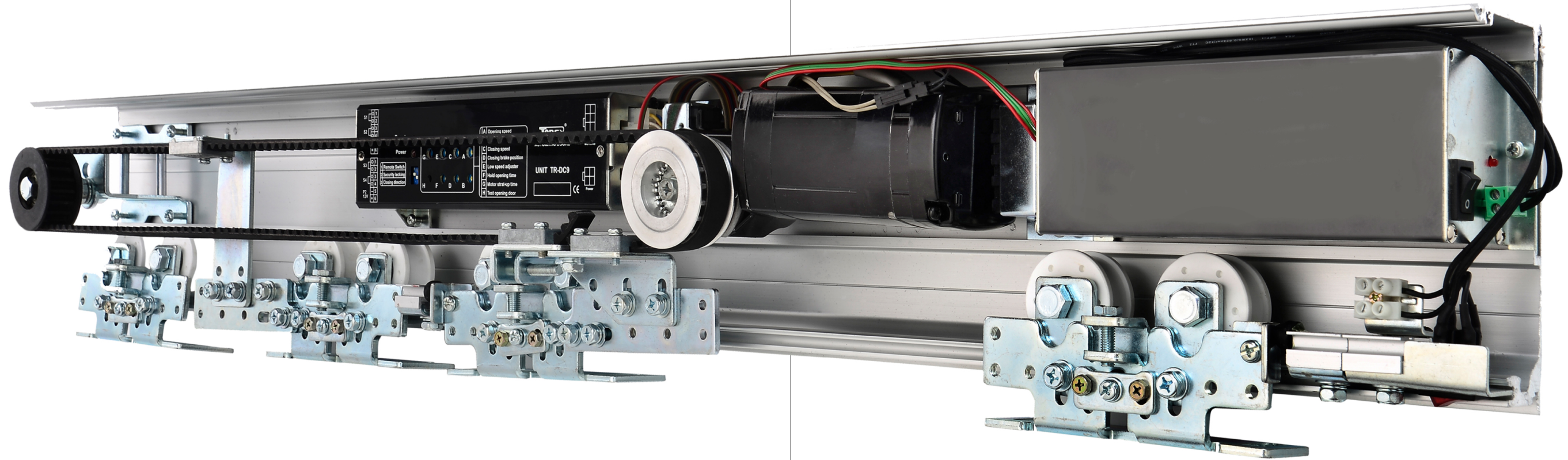
Single Panel 150kg x 1



Dual Panel 140kg x 2



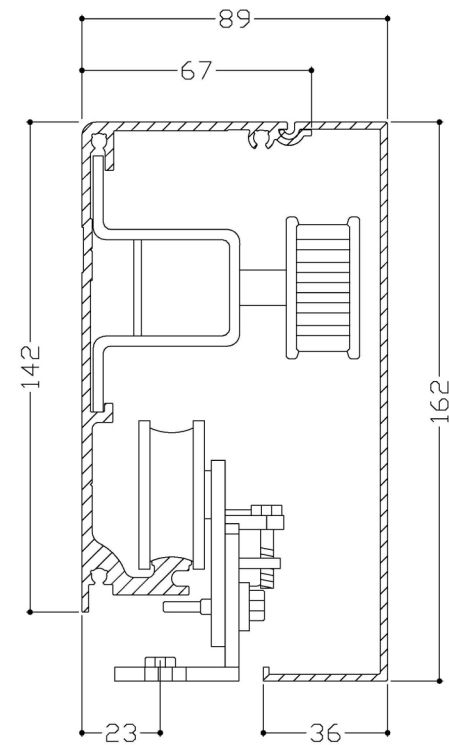
# AX-18-200-Series CE



## Specifications

Type	AX-18-200-01	AX-18-200-02
Door panel	Single Panel	Dual Panel
Door Weight	200kg x 1	190kg x 2
Door Width	500~2800mm	
Rail Length	3000mm	2000mm x 2
	4000mm	3000mm x 2
	6000mm	5600mm x 2
Opening Speed	200~600 mm/sec, adjustable	
Closing Speed	200~550 mm/sec, adjustable	
Power Supply	AC 90V~240V ; 50Hz, 60Hz	
Motor	DC MOTOR 24V/70W	
Belt	S8M high tension timing belt	
General Controller	Digital Logic Micro Processor	
Manual Opening Force	3kg Max	
Ambient Temperature	-20°C~55°C	
Noise Level	Max. 50dB	

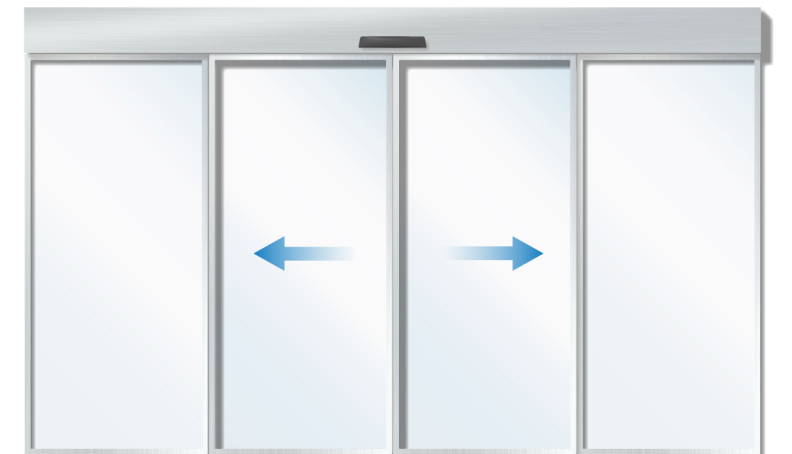
## Detail



Single Panel 200kg x 1



Dual Panel 190kg x 2





The Great Harbor Bridge  
Kaohsiung, Taiwan





Echo Across the Harbor  
Kaohsiung, Taiwan

# Opening sensors for automatic doors

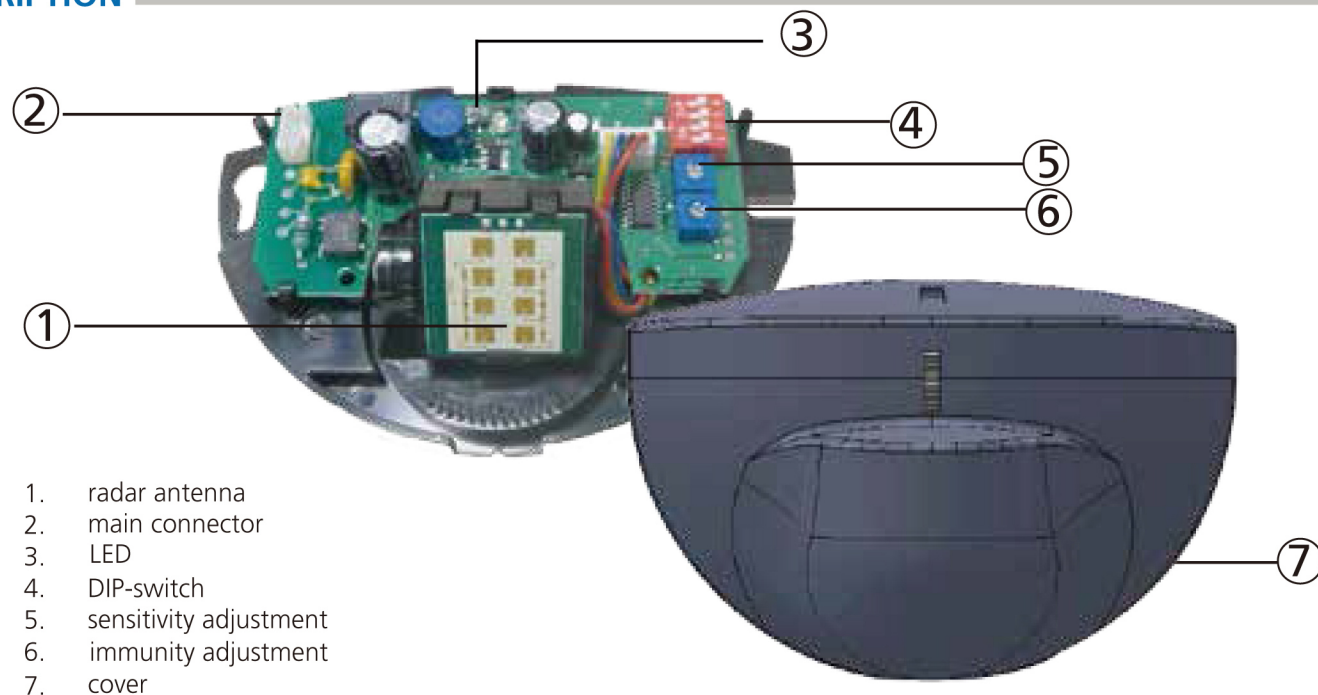
## EAGLE 6+DRO

Please keep for further use  
Designed for colour printing

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer.  
The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

### EAGLE 6+DRO: bidirectional sensor

#### DESCRIPTION



- 1. radar antenna
- 2. main connector
- 3. LED
- 4. DIP-switch
- 5. sensitivity adjustment
- 6. immunity adjustment
- 7. cover

#### TECHNICAL SPECIFICATIONS

Technology:	microwave doppler radar
Transmitter frequency:	24.150 GHz
Transmitter radiated power:	< 20 dBm EIRP
Transmitter power density:	< 5 mW/cm <sup>2</sup>
Detection mode:	motion
Min. detection speed:	5 cm/s (measured in sensor axis)
Supply voltage:	12 V to 24 V AC ±10%; 12 V to 24 V DC +30% / -10%
Mains frequency:	50 to 60 Hz
Max power consumption:	< 2 W
Output:	relay (free of potential change-over contact)
Max. contact voltage:	42 V AC/DC
Max. contact current:	1 A (resistive)
Max. switching power:	30 W (DC) / 60 VA (AC)
Mounting height:	from 1.8 m to 4 m
Degree of protection:	IP54
Temperature range:	from -20 °C to + 55 °C
Dimensions:	120 mm (L) x 80 mm (H) x 50 mm (W)
Tilt angles:	0° to 90° vertical; -30° to +30° lateral
Material:	ABS
Cable length:	2.5 m
Norm conformity:	R&TTE 1999/5/EC; EMC 2004/108/EC

Specifications are subject to changes without prior notice.  
Measured in specific conditions

#### TROUBLESHOOTING

	The door remains closed. The LED is OFF.	The sensor power is off.	<b>1</b> Check the wiring and the power supply.
	The door does not react as expected.	Improper output configuration on the sensor.	<b>1</b> Change the output configuration setting on each sensor connected to the door operator.
	The door opens and closes constantly.	The sensor is disturbed by the door motion or vibrations caused by the door motion.	<b>1</b> Make sure the sensor is fixed properly. <b>2</b> Increase the antenna angle. <b>3</b> Increase the immunity filter. <b>4</b> Reduce the field size.
	The door opens for no apparent reason.	It rains and the sensor detects the motion of the rain drops.	<b>1</b> Increase the immunity filter. <b>2</b> Install the ORA (rain accessory).
		In highly reflective environments, the sensor detects objects outside of its detection field.	<b>1</b> Change the antenna angle. <b>2</b> Decrease the field size. <b>3</b> Increase the immunity filter.
		In airlock vestibules, the sensor detects the movement of the opposite door.	<b>1</b> Change the antenna angle. <b>2</b> Increase the immunity filter.
	Detection area is too small	Sensitivity is too low Height mode is error set	<b>1</b> Adjust sensitivity potentiometer, increase sensitivity. <b>2</b> When mounting height is more than 3 meters, turn the switch 3 to ON.

# IXIO-D

## OPENING AND SAFETY SENSOR FOR AUTOMATIC SLIDING DOORS

Commercial sheet

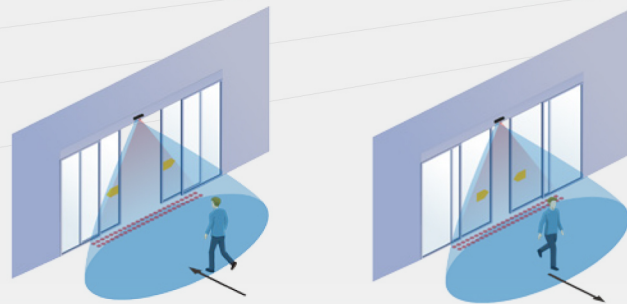


### THE SECOND-GENERATION DUAL SENSOR

#### DESCRIPTION

The IXIO-D is a sensor which combines radar technology for the activation of the door with infrared technology for the user protection. The unidirectional radar enables energy savings to be made. The three-dimensional infrared curtain protects people from any contact with the doors.

COMPLIANT WITH  
EN 16005/DIN 18650



#### UNIDIRECTIONAL

Due to the unidirectionality, the duration of the door opening cycle is shorter, which reduces heat loss from the building and saves energy. This also optimises the "airlock" function.



#### LCD

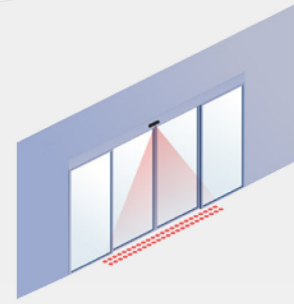
Intuitive configuration with an LCD screen displaying texts and symbols (LCD graphics).



#### INFRARED CURTAINS

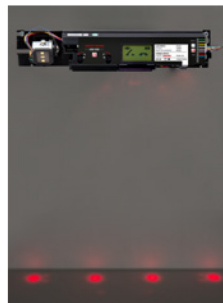
48 high-density infrared spotlights from 2 curtains protect users from any contact with the doors.


A 32-bit microprocessor optimises the processing of information coming from the environment, ensuring a stable performance throughout the year.



#### SAFETY


4 red spotlights visible on the ground to adjust the angle of the failsafe curtain.





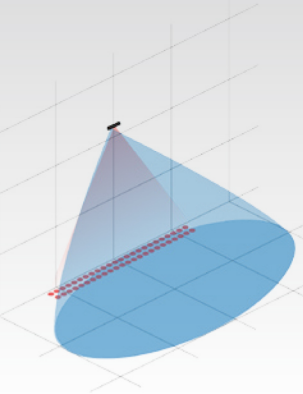
APPLICATIONS

Single leaf sliding doors




APPLICATIONS

Double leaf sliding doors





DETECTION RANGE

Area detection radar 4 m x 2 m @ 2.2 m  
infrared 2,2 m x 0,5 m @ 2,2 m



IXIO RANGE

IXIO-S  
Presence sensor with infrared technology  
for the safety of sliding doors

TOOL

Download the BEA DECODER app  
for a quick overview of settings

### APPLICATIONS

- Opening and safety of linear, telescopic and curved automatic sliding doors.

### EASE OF INSTALLATION

- Intuitive configuration thanks to an LCD screen and/or a BEA remote control.
- LCD graphics screen with choice of language.
- 10 adjustment options for the IR curtains.
- Lateral orientation from -15° to +15° for the radar antenna.
- 4 infrared spotlights visible on the ground for the easy adjustment of the failsafe curtain.
- Plug, push & go.
- The ZIP code is a compression of all sensor settings in encoded format (which can be decoded by the BEA DECODER app).

### VERSIONS

- IXIO-DT1: dual sensor with combined technologies and self-monitoring.
- IXIO-DT3: dual sensor with combined technologies for emergency doors and standard doors. 3-in-1 product with choice of 3 types of output (current/frequency/relay).
- IXIO-DP1: dual sensor with combined technologies for pulsed safety door controllers
- IXIO-DP3: dual sensor with combined technologies for emergency doors and standard doors with pulsed safety door control.

### ACCESSORIES



### TECHNICAL SPECIFICATIONS

<b>Detection mode</b>	Motion	Presence
<b>Technology</b>	Microwave doppler radar	Active infrared with background analysis
<b>Output</b>	Solid-state-relay (potential and polarity free) - in switching mode : NO/NC - in frequency mode*: pulsed signal (f = 100 Hz +/- 10%)	Solid-state-relay (potential and polarity free) Pulse output**
	Current source output*	
<b>Test input</b>		Sensitivity : Low : < 1 V; High : > 10 V
<b>Supply voltage</b>	12 V - 24 V AC +/-10%; 12 V - 30 V DC +/- 10%	
<b>Mounting height</b>	2 m to 3,5 m (local regulations may have an impact on the acceptable mounting height)	
<b>Temperature range</b>	-25°C to +55°C; 0-95% relative humidity, non condensing	
<b>Degree of protection</b>	IP54	
<b>Applicable directives /Norms</b>	R&TTE 1999/5/EC; MD 2006/42/EC; LVD 2006/95/EC; ROHS 2 2011/65/EU; EN 12978; DIN 18650-1:2010 Chapter 5.7.4; AutSchR; BS 7036-1:1996 Chapter 7.3.2; EN ISO 13849-1:2008 PL «c» CAT. 2(under the condition that the door control system monitors the sensor at least once per door cycle); IEC 61496-1:2012 ESPE Type 2; EN 16005:2012 Chapter 4.6.8; BS 7036-1:1996 Chapter 8.1	

\* DT3/DP3 \*\*DP1/DP3

Specifications are subject to change without prior notice.  
All values measured in specific conditions.

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IXIO-D OPENING AND SAFETY SENSOR FOR AUTOMATIC SLIDING DOORS

# MICROCELL SC

APPLIED TO THE PEDESTRAIN CHANNEL MANAGEMENT AND AUTOMATIC DOOR SAFETY PROTECTION SENSOR

Commercial sheet



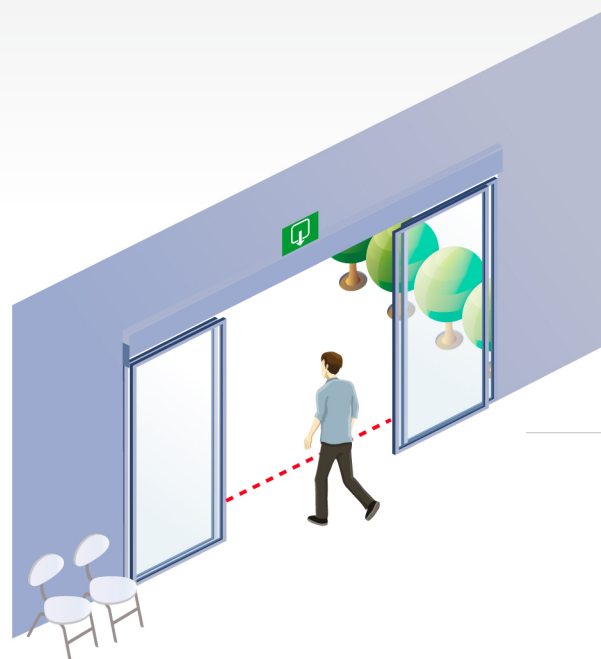
## INFRARED BARRIERS SENSOR

### DESCRIPTION

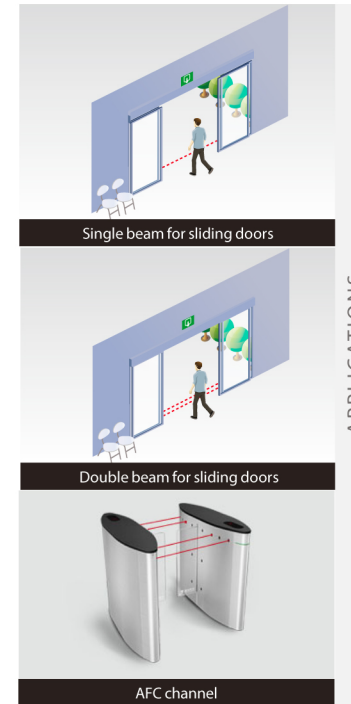
The MICROCELL SC is the infrared barrier consisting of a transmitter and a receiver.

### FEATURES

- Simple installation
- A red LED on receiver indicated the detection status.
- Easy integration in most doorprofiles thanks to small size.
- Infrared barrier consisting of a transmitter and a receiver.
- Mounting above on the floor (20 cm and 30 cm),



MICROCELL SC ■



### APPLICATIONS

- Safety for automatic sliding doors.
- AFC channel.

### EASE OF INSTALLATION

- This sensor could be installed without control box.

### TECHNICAL SPECIFICATION

Detection mode	Active infrared, microprocessor
Mounting height	short distance: 0.2m minimum above the ground long distance: 0.3m minimum above the ground
Distance between beams	0.3m minimum(crossed beams)
Distance from door	2cm
Detection range	
Short distance	0.6m to 1.5m
Long distance	1.5m to 5.0m
Beam aperture half-angle	Long distance 4°@5m Short distance 6°@1m
Response time	≤5ms (beam set-up of cut-off)
Supply voltage	12V to 24V DC -5/+20%
Power consumption	
Emitter	<10mA
Receiver	<10mA
Output (Open-collector transistor NPN)	
Maximum voltage	30V DC
Maximum current	30mA
Voltage drop	<2V at 30mA
Temperature range	-20° C to +60° C
Detection head sealing	IP65(DIN40050)
Cable length	short distance: 2m long distance: 5m
Housing material	PC

Specifications are subject to change without prior notice.

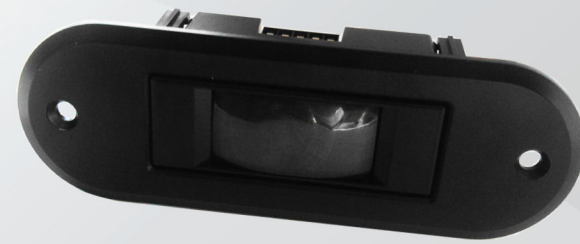
**DISCLAIMER** This document as well as all other enclosed documents (quotation / specification / other) are provided «as is» without warranties of any kind, either expressed or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. / Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will BEA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information from this document or the products to which the information refers. / BEA has the right without liability to change descriptions and specifications at any time. / Prices, shipping and availability are subject to change without prior notice.



# MINI FLY

## PASSIVE INFRARED SENSOR FOR OPENING

Commercial sheet



### PASSIVE INFRARED SENSOR

#### DESCRIPTION


MINI FLY is an opening sensor using passive infrared technology. This compact sensor offers a comfortable and reliable opening for revolving doors.

MINI FLY ■




#### FEATURES

- Smaller size and higher installation height up to 3.5m.
- Advanced temperature compensation technology ( guarantee the detection even when background temperature is close to human body).
- Excellent immunity performance against interference.
- -4° to +4° adjustable angle.
- Detection zone can be adjusted by using masking lens.
- Potentiometer to adjust detection sensitivity.
- Adjustable output setting.



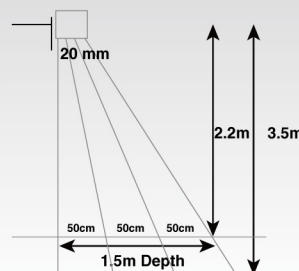
APPLICATIONS

Automatic revolving doors

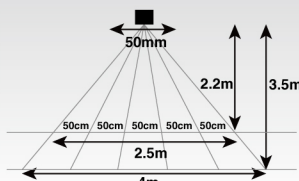


DETECTION RANGE

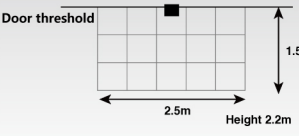
Automatic sliding doors



Sensing field dimensions--Profile view



Sensing field dimensions--Front view



Sensing field dimensions--Flat view

#### APPLICATIONS

- Opening for sliding doors, swing doors and revolving doors.
- Easily to be used in revolving doors using MFCA accessory.

#### EASE OF INSTALLATION

- Templates are provided for reliable installation.
- Mechanical adjustment of detection zone by adjusting angle and masking lens.

#### ACCESSORIES

- Ceiling mounting accessory MFCA.

#### TECHNICAL SPECIFICATIONS

Features:	Microprocessor control/ temperature compensation technology/ adjustable installed angle
Mounting height:	Up to 3.5m
Mounting angles:	-4° to +4°
Maximum detection area :	2.5m (W) x 1.5m (D) mounting height of 2.2m 4.0m (W) x 2.4m (D) mounting height of 3.5m
Detection mode:	Movement
Detection speed:	0.1 to 1.5m/s
Relay hold time:	0.5s/2s
Response time:	Max 200 ms
Power supply:	12 VDC -10% to 24 VDC+30% / 12 VAC to 24 V AC +/-10 %
Main frequency:	50/60 Hz
Power consumption:	<1W
Temperature range	From -30°C to +55°C
Degree of protection:	IP54
Standard output relay:	
Max contact voltage	60 V DC/ 42 V AC
Max contact current	1A (resistive)
Max switching power	30W (DC) / 60 VA(AC)
Dimensions of sensor:	64mm(W)x41mm(H)x23mm(D)
Immunity:	Electromagnetic compatibility(EMC) according to 89/336/EEC

Specifications are subject to change without prior notice.

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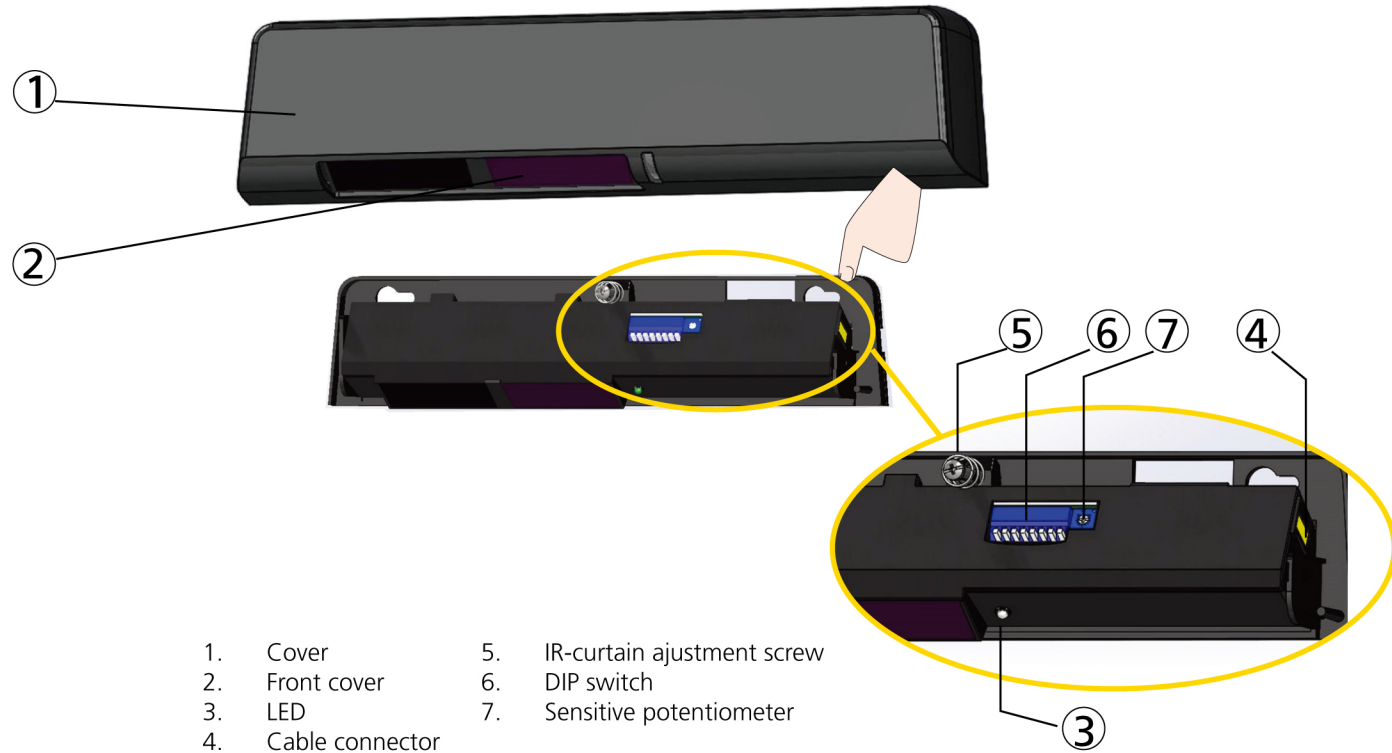


# SAFE 4-24

## Motion & Presence sensor for automatic sliding doors

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer. The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

### DESCRIPTION



- 1. Cover
- 2. Front cover
- 3. LED
- 4. Cable connector
- 5. IR-curtain adjustment screw
- 6. DIP switch
- 7. Sensitive potentiometer

### TECHNICAL SPECIFICATIONS

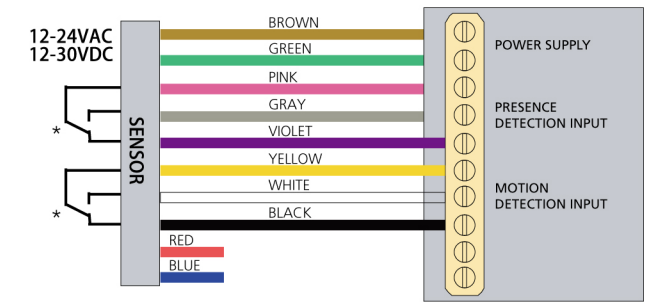
Product:	SAFE 4-24
Supply voltage:	12V-24 V AC +/-10%; 12V-30 V DC -5%/+10%
Power consumption:	< 2.5 W
Mounting height:	1.8 m to 3 m
Degree of protection:	IP54
Detection mode:	Motion/ Motion & Presence Typical response time: <320 ms (max. 600ms)
Technology:	Active infrared with background analysis Spot diameter: 6 cm (typ) Number of spots: 24/C1, 16/C2-C4 Number of curtains: 4
Angle adjustable range:	18.5 ° (the angle of 4 curtains change at the same time)
Output:	Relay (free of polarity) Max. contact voltage: 42 V AC/DC Max. contact current: 1 A (resistive) Max. switching power: 30 W (DC)/60 VA (AC)
Hold time output signal:	500ms

Specifications are subject to changes without prior notice. All values measured in optimal conditions.

## 1 MOUNTING & WIRING

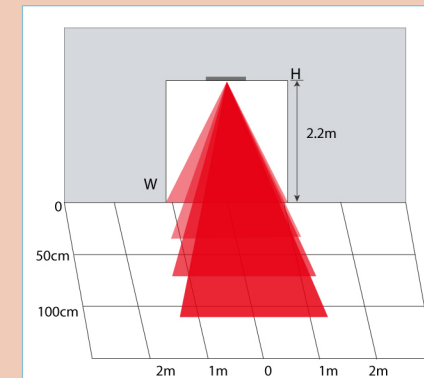


The door control unit and the door cover profile must be correctly earthed.

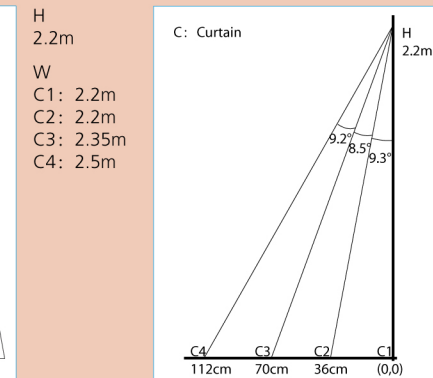


\* Output status when sensor is operational

## 2 INFRARED FIELD



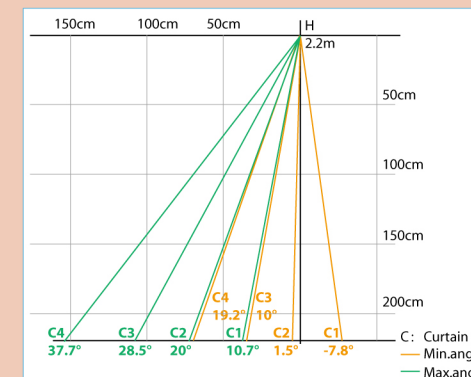
Curtain height and width



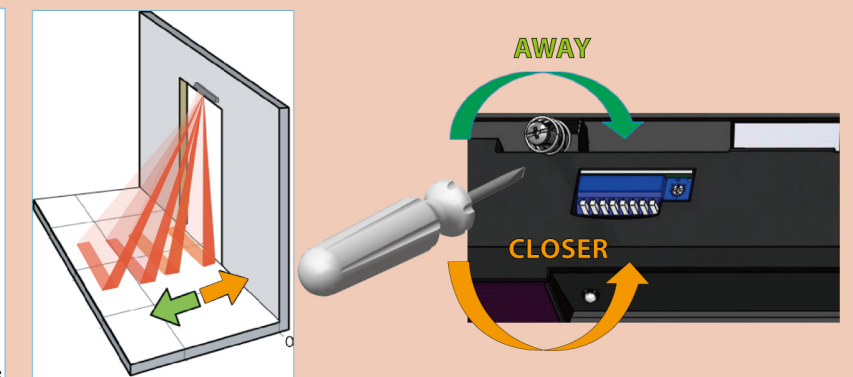
Angle and spacing between curtains



sensitivity

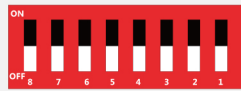


Adjustable angle range of each curtain



### 3 SETUP

Dip switch



**Step out of the detection field during setup.**

	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8
ON	Visible spot ON	Immunity High	Presence time seeTABLE 2		Frequency B	Curtain 1 Motion	Curtains seeTABLE 3	
OFF	Visible spot OFF	Immunity Low			Frequency A	Curtain 1 Presence		

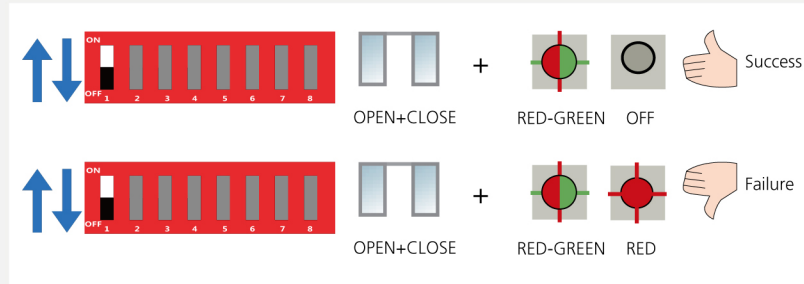
	DIP3	DIP4
30s	OFF	OFF
60s	ON	OFF
5min	OFF	ON
Infinity	ON	ON

(TABLE 2: Presence time)

	DIP7	DIP8
Curtain1-4	OFF	OFF
Curtain1-3	ON	OFF
Curtain1-2	OFF	ON
Curtain1	ON	ON

(TABLE 3: Curtains)

Assistance setting



(Pushing from OFF to ON and to OFF again, 0.5s < stay on < 1.5s, to start assistance set up)  
 \* If failure, please repeat the setting process, and ensure that no moving objects in the detection area.

**IMPORTANT:** Test the good functioning of the installation before leaving the premises.

It is recommended to clean the optical parts at least once a year or more often if required due to environmental conditions.

### LED-SIGNALS

	The ORANGE LED flashes every second.	The sensor goes into security mode.	<b>1</b> Cut and restore power supply.
	The ORANGE LED flashes 1 x.	The sensor signals an internal fault.	<b>1</b> Cut and restore power supply. <b>2</b> If orange LED flashes again, replace sensor.
	The ORANGE LED is on.	The sensor encounters a memory problem.	<b>1</b> Cut and restore power supply. <b>2</b> If orange LED lights up again, replace sensor.
	The ORANGE LED flashes 8 x.	The sensor encounters an internal fault.	<b>1</b> Replace the sensor.
	The RED keep lighting for 4s without detection then lights off.	Learning the background.	<b>1</b> N/A
	The Green / Red LED lights up sporadically.	The sensor vibrates.	<b>1</b> Check if the sensor is fastened firmly.
	The Green / Red LED lights up sporadically.	The sensor sees the door or some moving parts.	<b>1</b> Adjust the angle and launch a set up.
	Red LED	Presence detected.	<b>1</b> N/A
	Green LED	Motion detected.	<b>1</b> N/A

#### SAFETY INSTRUCTIONS



The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety. Only trained and qualified personnel may install and setup the sensor. The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel. Avoid touching any electronic and optical components.

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Only for EC countries: According to the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment (WEEE)

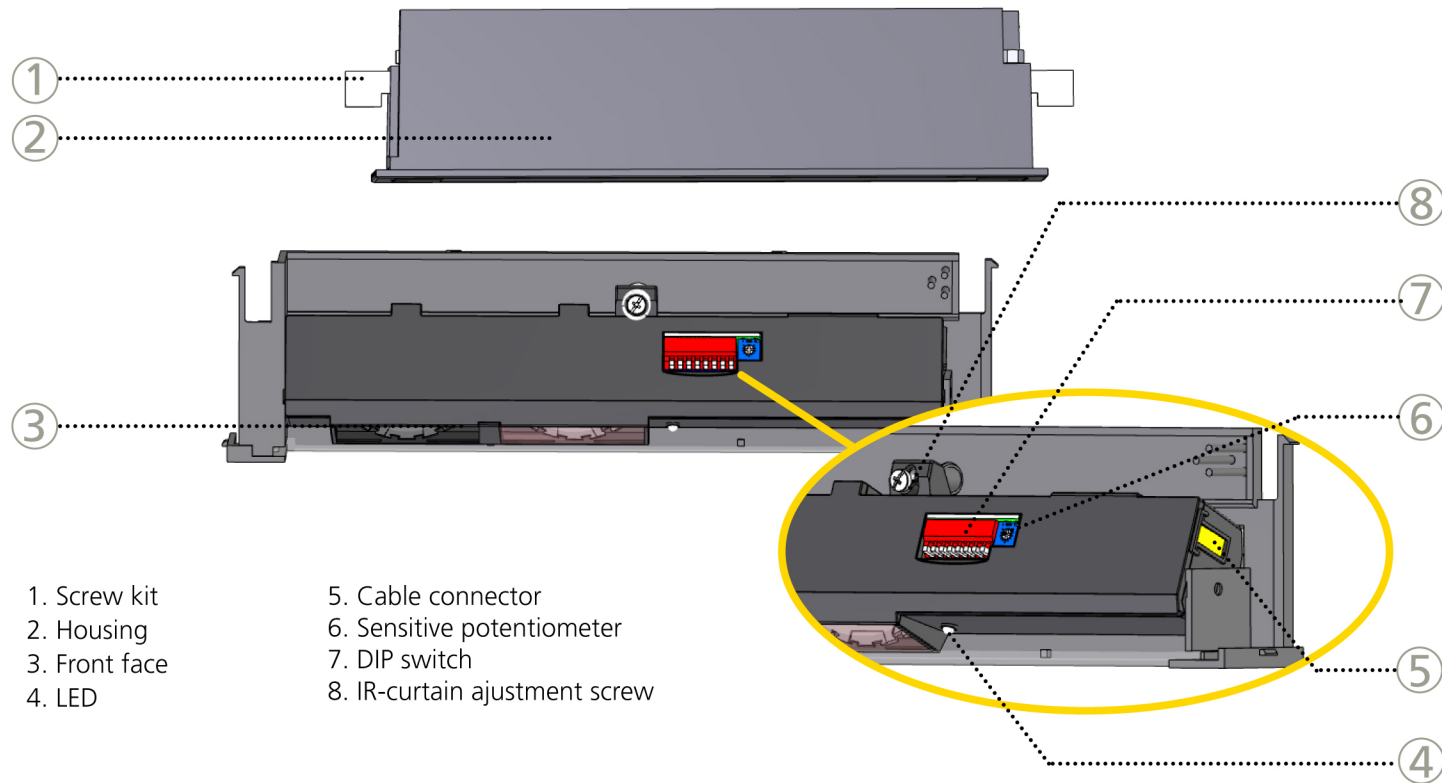


# SAFE 4-24 recessed

## MOTION & PRESENCE SENSOR FOR AUTOMATIC SLIDING DOORS

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer. The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

### DESCRIPTION



- 1. Screw kit
- 2. Housing
- 3. Front face
- 4. LED
- 5. Cable connector
- 6. Sensitive potentiometer
- 7. DIP switch
- 8. IR-curtain adjustment screw

### TECHNICAL SPECIFICATIONS

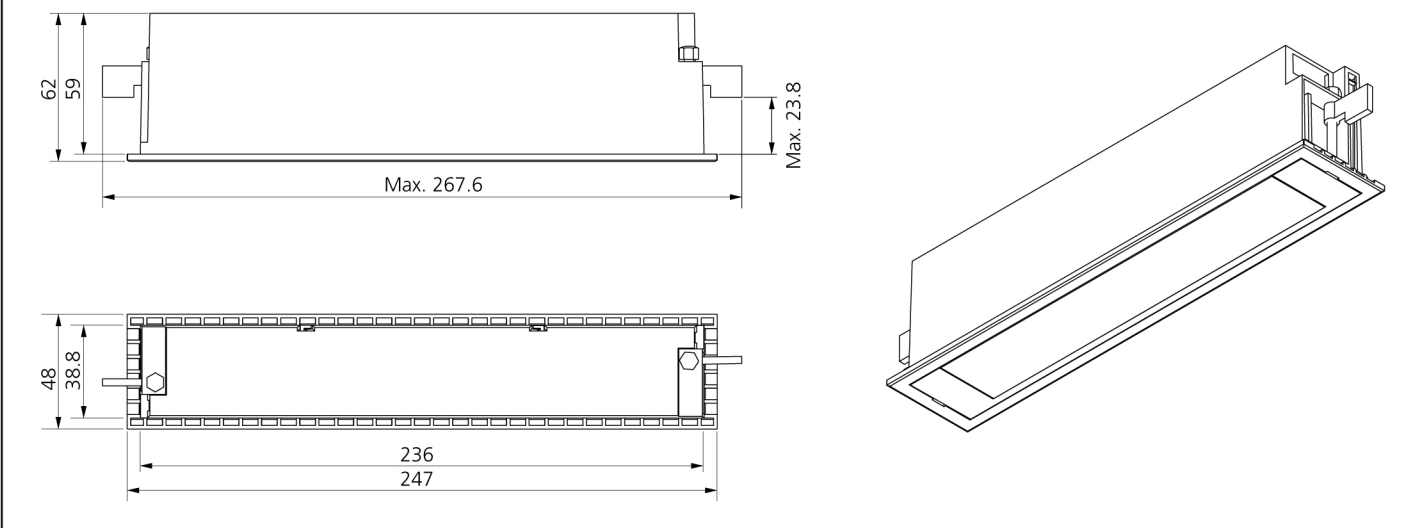
Product	SAFE 4-24 recessed
Supply voltage	12V-24V AC +/-10% ;12V-30V DC -5%/+10%
Power consumption	< 2.5 W
Mounting height	1.8 m ~ 3 m
Degree of protection	IP54
Detection mode	Motion/ Motion & Presence Typical response time: <320 ms (max. 600ms)
Technology	Active infrared with background analysis Spot dimension: 4.5 cm x 4.5 cm @ 2.5 m(mounting height) Number of spots: 24 / curtain1, 16 / curtain2-4 Number of curtains: 4
Angle	18.5 ° (the angle of 4 curtains change at the same time)
Temperature	-20°C ~ + 60°C
Output	Relay (free of polarity) Max. contact voltage: 42 V AC/DC Max. contact current: 1 A (resistive) Max. switching power: 30 W (DC)/60 VA (AC)
Hold time output signal	0.5 s

Specifications are subject to changes without prior notice. Measured in specific conditions.

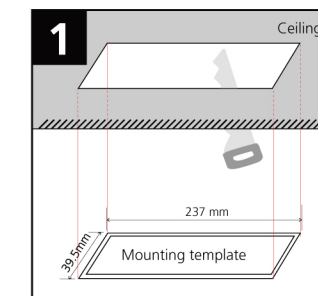
## MOUNTING & WIRING

### Dimension

All dimensions are in mm.



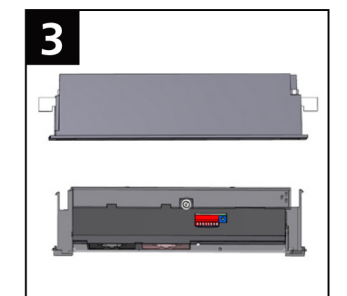
### Mounting



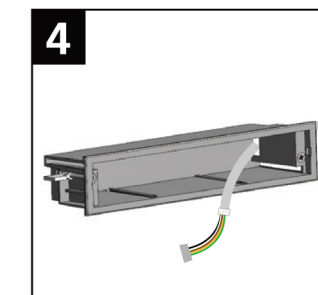
Cut out the ceiling with the mounting template.



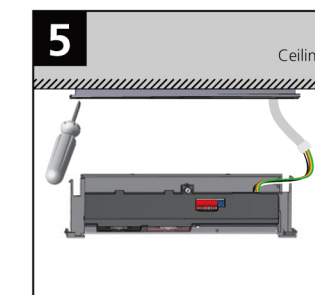
Open the sensor through the groove.



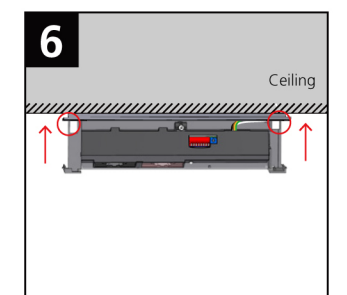
Pull out the internal bracket.



Cross the cable into the housing.

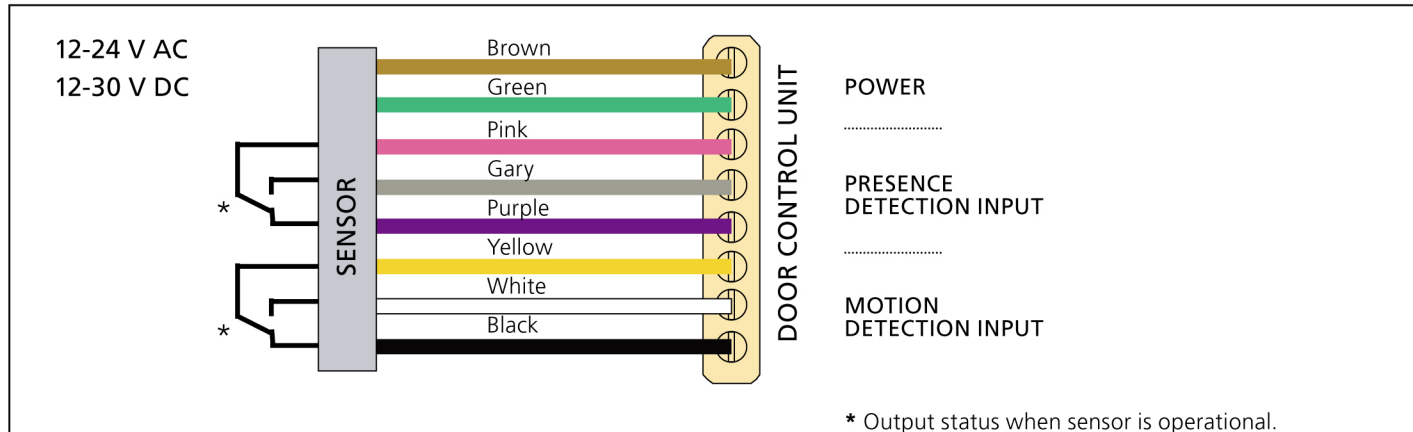


Fix the housing on the ceiling, and connect the cable to the sensor.



Place the sensor in the housing and prepare for further adjustment.

### Wiring



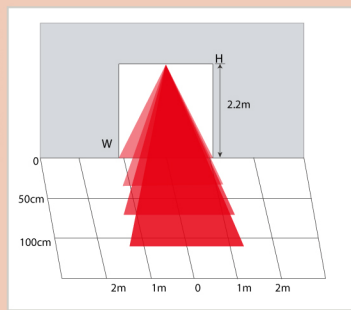
\* Output status when sensor is operational.



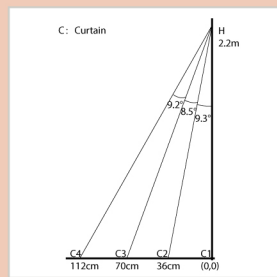
# INFRARED FIELD



CURTAIN HEIGHT AND WIDTH



**H**  
2.20 m  
**W**  
C1: 2.20 m  
C2: 2.20 m  
C3: 2.35 m  
C4: 2.50 m

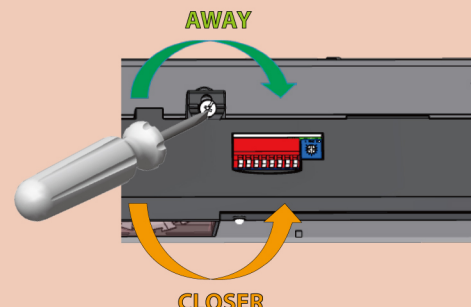
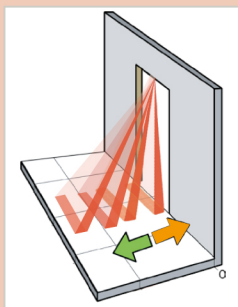
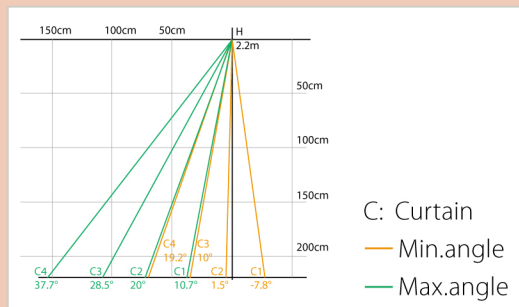


Angle and spacing between curtains



Sensitivity

ADJUSTABLE CURTAIN ANGLE RANGE



**!** For ceiling installation do ensure to position the infrared curtains closer to the door leaf for optimal safety.

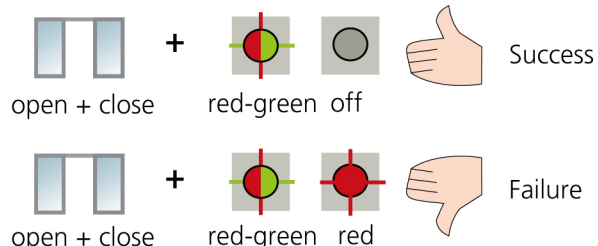
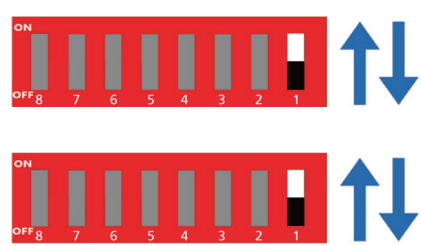
## SETUP

### DIP switch



DIP	DIP1	DIP2	DIP3		DIP4		DIP5	DIP6	DIP7		DIP8
Status											
ON	Visible spot ON	Immunity high	DIP Time	DIP3	DIP4	Frequency B	Curtain 1 motion	DIP Curtain	DIP7	DIP8	
				30s	OFF				OFF	Curtain1-4	OFF
OFF	Visible spot OFF	Immunity low	60s	ON	OFF	Frequency A	Curtain 1 presence	Curtain1-3	ON	OFF	
			5min	OFF	ON				Curtain1-2	OFF	ON
			Infinity	ON	ON		Curtain1	ON	ON		

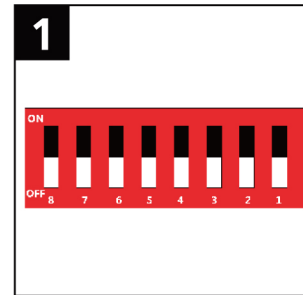
### Assistance setting



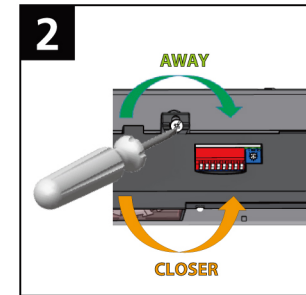
(Pushing from OFF to ON and to OFF again, 0.5s < stay on < 1.5s, to start assistance set up)  
\* If failure, please repeat the setting process, and ensure that no moving objects in the detection area.

**IMPORTANT:** Test the good functioning of the installation before leaving the premises.  
It is recommended to clean the optical parts at least once a year or more often if required due to environmental conditions.

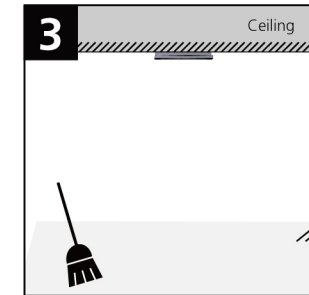
## ADJUSTMENTS



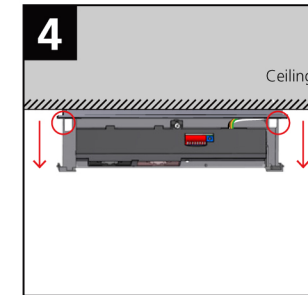
Power the sensor, then adjusting DIP switch parameters that correctly adapt to the environment at the scene. Please refer to the **SETUP** for details of DIP switch.



Adjust the screw shows above to adjust the light curtain to the appropriate position.



Push the sensor entirely into the housing and locked by two buckles on both sides. Clean the field and power off and on make the sensor learning the background.



If the sensor needs further adjustment, open the buckle frontside and slide sensor out to do the adjustment, then push back into housing.

## TROUBLE SHOOTING

	The ORANGE LED flashes every second.	The sensor goes into security mode.	Cut and restore power supply.
	The ORANGE LED flashes 1 x.	The sensor signals an internal fault.	1 Cut and restore power supply. 2 If orange LED flashes again, replace sensor.
	The ORANGE LED is on.	The sensor encounters a memory problem.	1 Cut and restore power supply. 2 If orange LED lights up again, replace sensor.
	The ORANGE LED flashes 8 x.	The sensor encounters an internal fault.	Replace sensor.
	The RED LED keep lighting for 4s without detection then lights off.	Learning the background.	N/A
	The Green / Red LED lights up sporadically.	The sensor vibrates. The sensor sees the door or some moving parts.	Check if the sensor is fastened firmly. Adjust the angle and launch a set up.
	The Red LED on.	Presence detected.	N/A
	The Green LED on.	Motion detected.	N/A

### SAFETY INSTRUCTIONS



The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety. Only trained and qualified personnel may install and setup the sensor. The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel. Avoid touching any electronic and optical components.

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For EU countries: This product should be disposed of separately from unsorted municipal waste.



# ZENSAFE

DUAL TECHNOLOGY SENSOR FOR AUTOMATIC SLIDING DOORS

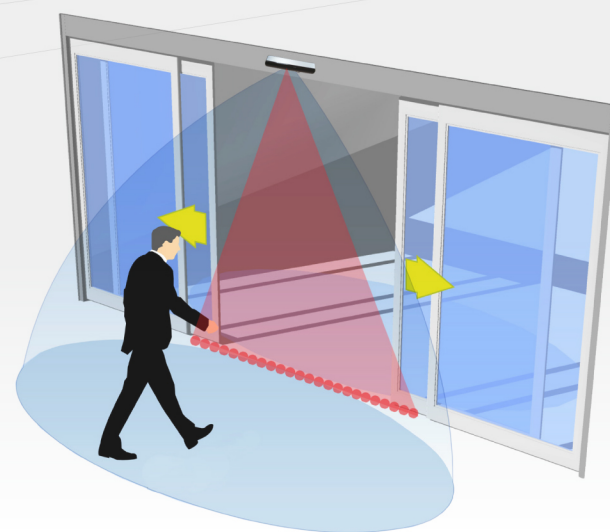
Commercial sheet



## OPENING AND SAFETY COMBINED IN ONE SENSOR

### DESCRIPTION

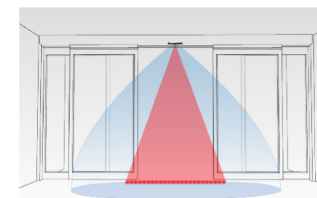
ZENSAFE is a dual technology sensor combining the microwave technology for the opening and active infrared technology for the safety.



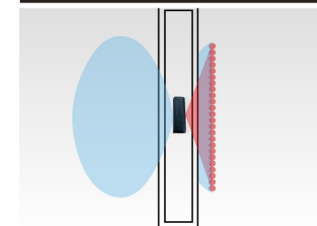
ZENSAFE ■

### FEATURES

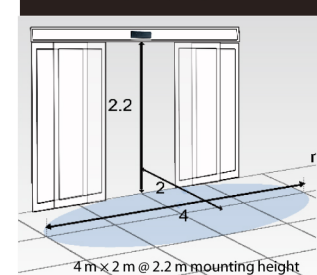
- Opening and safety in one sensor.
- Bidirectional sensing detection offering a reliable and comfortable opening.
- 1 safety curtain with 24 active infrared spots.
- The angle of infrared curtain can adjust easily.
- Robust and elegant design.
- Easy to install.



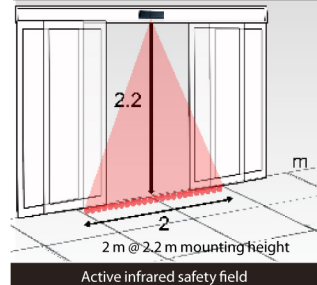
Automatic sliding doors



Possibility to replace photobeam



Radar detection field



Active infrared safety field

APPLICATIONS

### APPLICATIONS

- Opening and safety of linear, telescopic and curved automatic sliding doors.

### EASE OF INSTALLATION

- Easy installation thanks to the factory configuration.
- Adjust the opening detection area with the push buttons.
- Possibility to adjust the presence time and the immunity via dip switches.
- Possibility to adjust the infrared curtain angle (from -5°C to +8°C).
- Easy to open by hand.
- Plug & Play.

### TECHNICAL SPECIFICATIONS

Technology	Microwave and Active infrared
Transmitter frequency	24.150 GHz
Transmitter radiated power	< 20 dBm EIRP
Transmitter power density	< 5 mW / cm <sup>2</sup>
Detection mode	Motion and Presence
Min. detection speed	5 cm/s (measured in optimal conditions)
Supply voltage	12 V - 24 V AC +/-10% ; 12 V - 30 V DC -5%/+10%
Mains frequency	50 to 60 Hz
Max. power consumption	< 3 W (VA)
Output	relay (free of potential change-over contact)
Max. contact voltage	42V AC / DC
Max. contact current	1A (resistive)
Max. switching power	30 W (DC) / 60 VA (AC)
Mounting height	from 1.8 m to 3 m
Protection degree	IP54
Temperature range	from -25°C to +55°C
Material	ABS
Weight	215 g
Cable lenght	2.5 m

Specifications are subject to change without prior notice.

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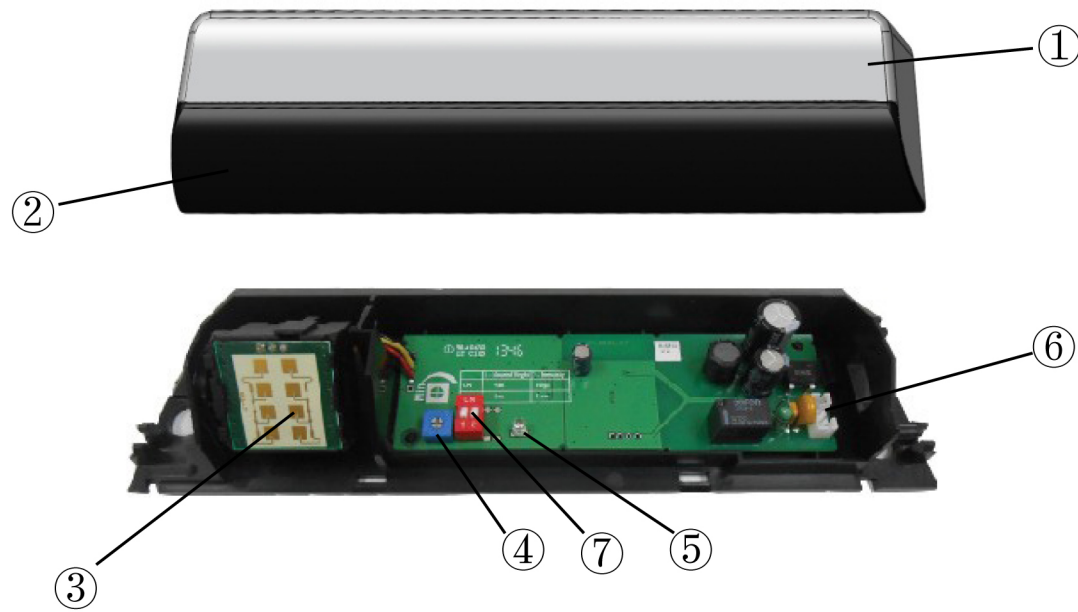
ZENSAFE DUAL TECHNOLOGY SENSOR FOR AUTOMATIC SLIDING DOORS

# ZEN

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer. The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

Opening sensor for automatic sliding doors

## DESCRIPTION



- 1. Cover
- 2. Front cover
- 3. Planar antenna

- 4. Potentionmeter
- 5. LED
- 6. Connector
- 7. DIP-Switch

Brown	Power supply
Green	Relay (COM)
White	Relay (NO)
Yellow	Relay (NO)

## TECHNICAL SPECIFICATIONS

Technology:	microwave and microprocessor
Transmitter frequency:	24.125GHz
Transmitter radiated power:	<20 dBm EIRP
Transmitter power density:	< 5mW/cm <sup>2</sup>
Maximum mounting height:	4m
Tilt angles:	15°- 45°
Max. detection field:	4m x 2m (mounting height=2.2m)
Detection mode:	motion
Minimum speed:	5 cm/s (measured in the sensor axis)
Supply voltage:	12V to 24V AC +/- 10%; 12V to 30V DC
Mains frequency:	50 to 60 Hz
Power consumption:	< 2W (VA)
Output relay(free of potential change-over contact)	
Max. contact voltage:	42V AC- 60V DC
Max. contact current:	1A (resistive)
Max. switching power:	30W (DC) / 60VA (AC)
Output hold time:	0.5s
Temperature range:	-20°C to +55°C
Protection Degree:	IP54

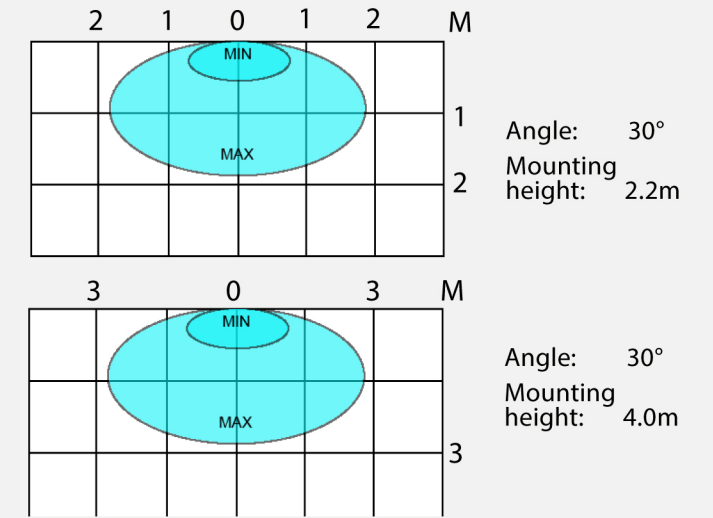
Specifications are subject to changes without prior notice.  
All values measured in optimal conditions.

## SETTING

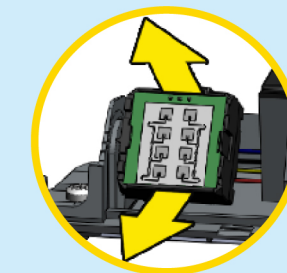
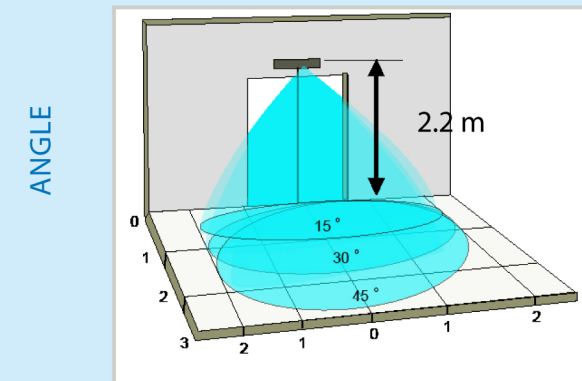
### 1 Size of sensing field: sensitivity settings.



	1 Mounting Height	2 Immunity
ON	4m	High
OFF	3m	Low
Factory Value	3m	Low



### 2 Depth of sensing field: vertical angle of the planar antenna.



### 3 Open and close.

As the followed photo, remove the front face from ZEN by putting finger at both end.



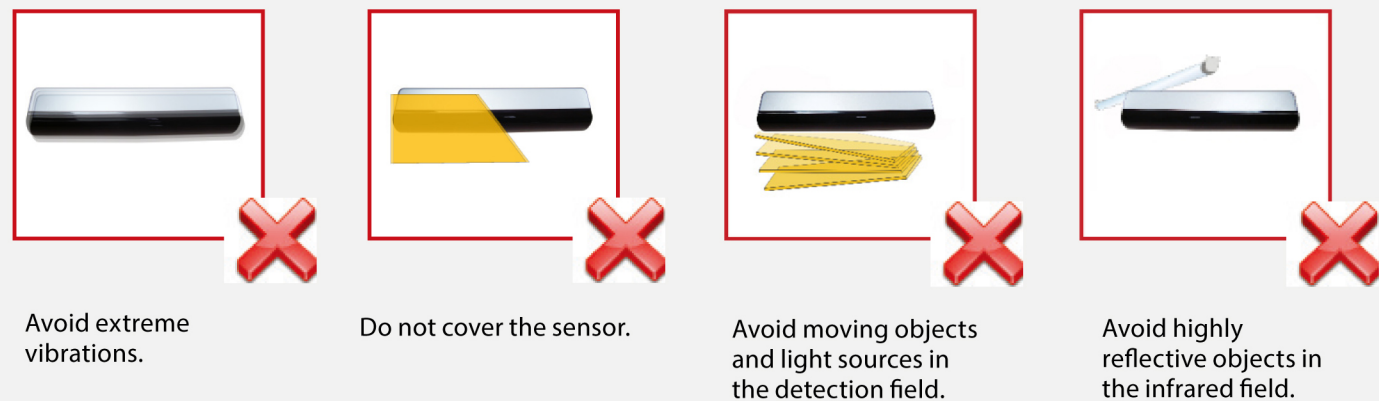
OPEN

Align the top edge first and then push at both end, to close the front face.



CLOSE

## 4 Installation tips.



Avoid extreme vibrations.

Do not cover the sensor.

Avoid moving objects and light sources in the detection field.

Avoid highly reflective objects in the infrared field.

## TROUBLESHOOTING

The door will not open and LED is OFF.	The sensor power is off.	1 Check the wiring and the power supply.
The door opens and closes constantly.	The sensor "sees" the door moving. When closing, the door creates vibrations picked up by the sensor.	1 Increase the tilt angle and/or reduce the sensitivity. 2 Make sure that the sensor is correctly fixed.
The door will not close. LED is OFF.	ON-OFF switch at door control is in wrong position or faulty.	1 Make sure that the ON-OFF switch for the door is in the ON or AUTOMATIC position.
Detection area is too small	Sensitivity is too low Mounting height mode incorrectly setting	1 Increase the sensitivity via potentiometer 2 Set the dip-switch-1 at "ON" position when mounting height is higher than 3m

### SAFETY INSTRUCTIONS



The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety.  
Only trained and qualified personnel may install and setup the sensor.  
The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel.  
Avoid touching any electronic and optical components.

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A HALMA COMPANY



Angleur, November 2010 Jean-Pierre Valkenberg, Authorized representative  
The complete declaration of conformity is available on our website: [www.bea.be](http://www.bea.be)





## The smallest and most accurate passive infrared motion sensor



### Detection

- **Very high accuracy** of the detection zone
- **Homogeneous lobe** independent of the external temperature conditions ; detection guaranteed even when the background temperature is close to that of the human body
- **Insensitive to air currents** and any sudden temperature variation
- **Detection zone can be adjusted** accurately by means of a masking lens
- **Insensitive to external interference** such as rain, snow, etc...
- **Very fast response time**
- **Low thermal remanence** of the Pyro element sensor after detection (no memory effect)

### Technology

- **Electronics controlled by a microprocessor** that, through a digital treatment, provides an optimal sensitivity an efficient thermal compensation as well as a high immunity against interference
- **Precision optics** perfectly delimiting the detection zone and increasing the sensitivity of the sensor
- **P.I.R. sensor** with four independent zones which gives an identical sensitivity in all directions
- **Enhanced immunity against vibrations.** Thanks to the use of a pyroelectric sensor from the last generation, the FLY is also immune to GSM interference
- **Injected lens** which offers better mechanical resistance to vandalism

### Adjustments for universal use

Adjustment of the size of the detection zone is carried out by cutting out segments of the masking lens. Electronic adjustments are performed by means of DIP switches

### Style

- The miniaturized size of the **FLY** offers a minimal visual impact and allows easy mounting in cramped places. Its robustness gives it vandal-proof protection
- The **FLY** becomes even more unobtrusive when mounting in the ceiling in its **FLYUP** version using its **FCA** accessory
- Integrated in its **FSA** accessory for which the key words are aestheticism and impermeability, and surface mounted, the **FLYCATCHER** created in this way will appeal to the most demanding architects

# FLY

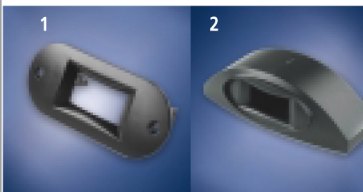
## with precision optics and digital signal processing

*Passive infrared motion sensor allowing the opening of small pedestrian doors with easy adjustment of the detection zone. Its small size makes it possible to conceal it completely inside a door profile. The FLY can also be integrated into a cover allowing surface mounting.*



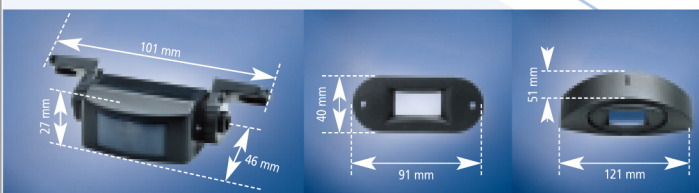
### Description

- 1 connector
- 2 bracket
- 3 LED
- 4 dip-switches
- 5 PYRO element
- 6 cover
- 7 masking lens



### Accessories

1. accessory for recessed mounting **FCA**
2. accessory for surface mounting **FSA**



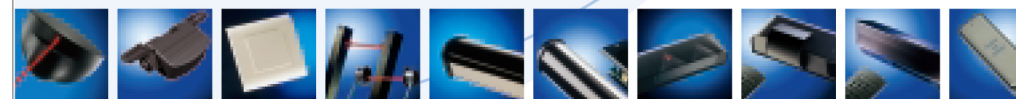
### Dimensions

### Technical specifications

Technology	passive infrared with microprocessor
Mounting height - variable	max 2,5 m x 1,5 for a mounting height of 2,2 m
Maximum mounting height	3 m
Power supply	12-24 V AC (50/60 Hz) -10/+10 % 12-24 V DC -10/+30 %
Power consumption	< 10 mA (20 mA if the output relay is activated)
Output relay	potential free contact NO/NC 1 A / 75 V DC OR 50 V AC
Warm up time	10 s
Relay hold time	0,5 s or 2s
Response time	max 200 ms
Detection speed	0,1 to 1,5 m/s
Dip-switches adjustments	<ul style="list-style-type: none"> <li>• sensitivity : ON = high - OFF = low</li> <li>• relay working mode : ON = passive - OFF = active</li> <li>• output hold time : ON = 2,0 sec - OFF = 0,5 sec</li> </ul>
Optical characteristics	passive infrared with four elements 15 Fresnel lenses with full independent masking possibilities
Connection	small 5 plug-in contacts connector
Cable section (recommended)	0,2 to 0,5 mm
Light indicator	1 red LED
Operating temperature	-30°C to +55°C
Weight	40g
Dimensions	101 mm (L) x 46 mm (D) x 27 mm (H)
Colour	anthracite grey or white
Immunity	immune to electrical and radio frequency interference according to EC 89/336/CEE and 92/31/CEE
<b>FCA</b>	
Dimensions	91 mm (L) x 40 mm (H)
Colour	anthracite grey, white or alu finishing
<b>FSA</b>	
Dimensions	121 mm (L) x 51 mm (H)
Colour	gris anthracite, blanc ou alu
Degree of protection	IP 54 (UV resistant)

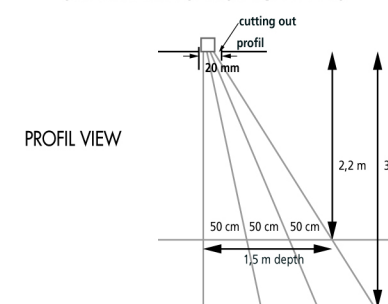
41.9233 / V2 - 10.02 • DESIGN VANGUE 32. 4 252 94 27

Subject to modifications

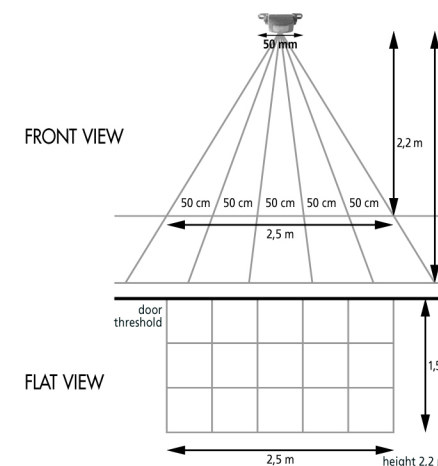


### Sensing fields

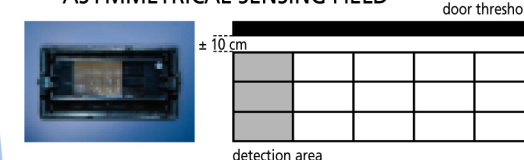
#### STANDARD SENSING FIELDS



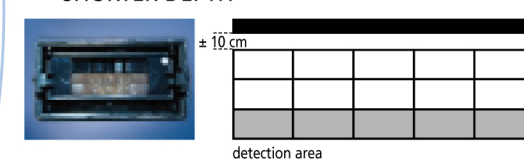
For automatic doors with large sensing fields or automatic doors where shopping carts or trolleys are used, it is recommended to use B.E.A. EAGLE range



#### ASYMMETRICAL SENSING FIELD



#### SHORTER DEPTH



### Application

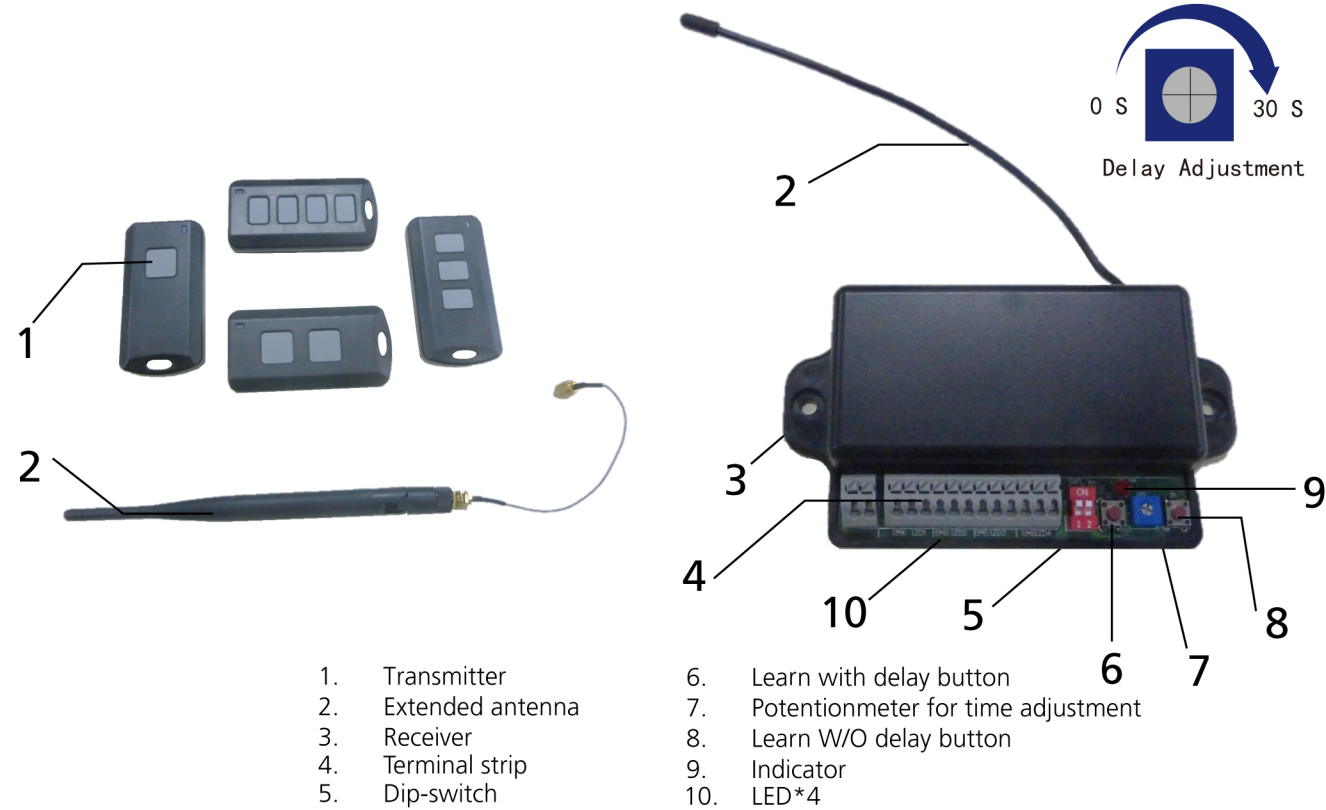


# IDS433/IDRC433 K1/K2/K3/K4 Industrial Remote control

EN

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer. The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

## DESCRIPTION



- 1. Transmitter
- 2. Extended antenna
- 3. Receiver
- 4. Terminal strip
- 5. Dip-switch
- 6. Learn with delay button
- 7. Potentionmeter for time adjustment
- 8. Learn W/O delay button
- 9. Indicator
- 10. LED\*4

## TECHNICAL SPECIFICATION

Frequency:	433MHz
Emitted radio power:	≤7 dBm (Transmitter)
Current consumption:	32mA(Transmitter) 40mA (Receiver)
Contact range:	1.0 A @ 30 VDC
Power supply:	3VDC(CR 2032 3V battery*2), 50,000 cycles (Transmitter) 9~30 VDC/AC (Receiver)
Operating temperature:	-30°C to 70°C
Max NO. of programmed units per receiver:	100 Transmitters
Modulation:	GFSK

Specifications are subject to changes without prior notice.  
All values measured in optimal conditions.

## PRECAUTION





- ⚠ 1. Ensure compliance with all applicable safety standards during installation.
- 2. Shut off all power going to work area before attempting any wiring procedures.
- 3. Maintain a clean & safe environment when working in public areas.
- 4. Ensure compliance with all laws during installation and tests.
- 5. Constantly be aware of pedestrian traffic around the area.
- 6. Circuit boards are vulnerable to damage by electrostatic discharge. Before handling ensure you dissipate your body's charge.
- 7. Always check placement of components before powering up so that moving parts will not catch any wires or cause damage to equipment.
- 8. Do not attempt any internal repair of the components. All repairs and/or component replacements must be performed by BEA,Inc. Unauthorized disassembly or repair:
  - 1. May jeopardize personal safety and may expose one to the risk of electrical shock.
  - 2. May adversely affect the safe and reliable performance of the product resulting in a voided warranty.

## PROGRAMMING

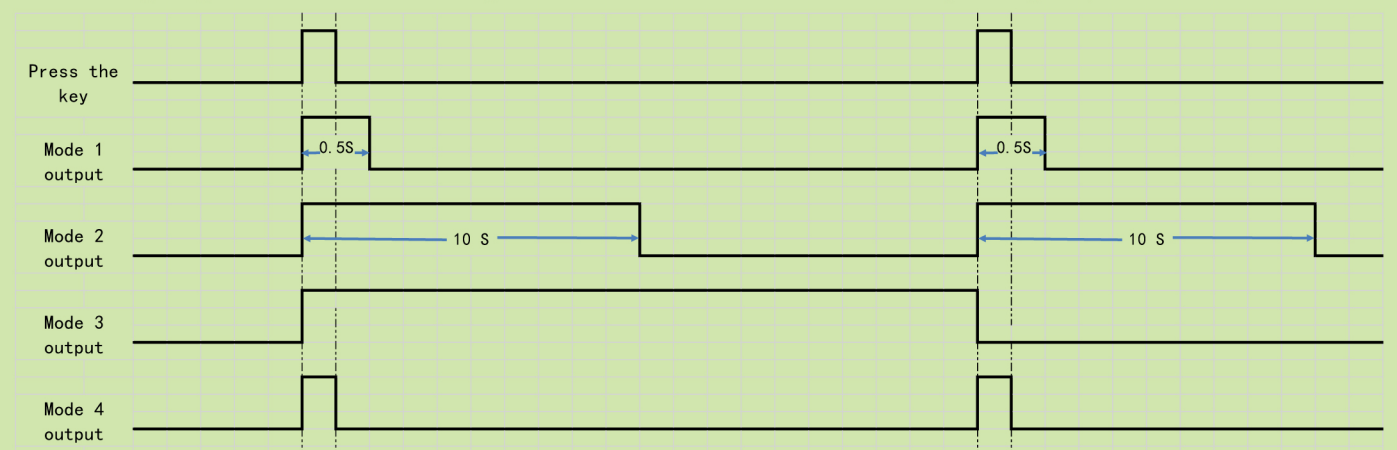
### 1. Installation instructions

The status of dip switch should be configured well before starting learning process. After learning, the relay could only start working when transmitter is on one type of output (no matter is for delay or non-delay).

### 2. Dip switch setting

-  Mode 1  
By pressing the key on the transmitter, the LED on the receiver will blink twice and then switch off, while relay will be activated for 0.5 S.
-  Mode 2  
By pressing the key on the transmitter, the LED on the receiver will blink twice and then switch off, while relay will be activated for 10 S.
-  Mode 3  
By pressing the key on the transmitter, the LED on the receiver will blink twice and then switch off, while relay will be activated. By pressing the key on the transmitter once again, the LED on the receiver will blink twice and then switch off, while relay will be deactivated.
-  Mode 4  
By pressing the key on the transmitter, LED on the receiver will keep blinking, while relay will be activated. By releasing the key on the transmitter, the LED on the receiver will blink twice and then switch off, while relay will be deactivated.

\* In delay mode, Mode 4 equals Mode 3.  
The timing diagram below shows the logical between transmitter and the corresponding output in different modes.



### 3. Learning Mode

1. By pressing the delay learning or non-delay learning key on the receiver, the indicator and the corresponding LED on the receiver will be lighted up, which means it enters learning mode.
2. By pressing a key on transmitter, the key could be learnt by the relay which LED is on. It indicates learning successfully as the indicator blinks once and goes off, relay disconnects and quits learning mode automatically.
3. In the learning mode, switch relays in turn by pressing the delay or non-delay learning key on the receiver.
4. In the learning mode, if there isn't any action for 10S, the receiver will quit learning mode automatically.

**NOTICE:**

1. One receiver can learn 100 keys at most.
2. Each key could be learnt by more than one receiver.
3. For one receiver, one key could only be learnt by one relay of the receiver.
4. Before entering the learning mode, delay time should be configured via potentiometer on receiver.

### 4. Delete Mode

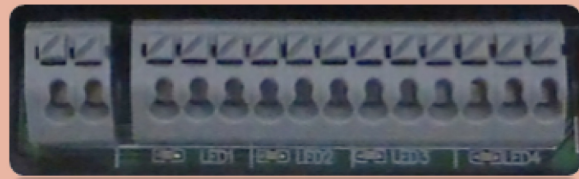
#### Delete one single key

1. Press non-delay learning key and delay learning key at the same time, until the indicator on receiver start to blink, which means receiver enters "delete one single key mode".
2. Press the key on the transmitter to delete it.
3. Repeat Step 2 within 10S to delete another key. If there isn't any action for 10S, the receiver will quit delete mode automatically; or press non-delay learning key and delay learning key once more to quit delete mode.

#### Delete all transmitters

1. Keep pressing non-delay learning key and delay learning key at same time;
2. The indicator will be lighted up after blinking 9 times. Then release non-delay and delay learning key.
3. The indicator will blink 4 times, which means all transmitters have been deleted.

## WIRING



1	2	3	4	5	6	7	8	9	10	11	12	13	14
power supply		relay1			relay2			relay3			relay4		
9-30VDC/AC(non-polarized)	COM1	NC1	NO1	COM2	NC2	NO2	COM3	NC3	NO3	COM4	NC4	NO4	

## BATTERY REPLACEMENT

**CAUTION:** There is risk of explosion if an incorrect battery type is used. Dispose of used batteries according to its instructions.

Transmitter	
1	Remove three screws from back of transmitter.
2	Separate housing and install a fresh 3-Volt (Type CR2032) battery making sure to observe proper polarity.
3	Reassemble housing and replace screws.

NOTE: Don't throw used batteries away with the general trash. Discard per your local municipal laws and regulations.

## LED / INDICATOR

### 1.Receiver

- a. When power up the receiver, the indicator will blink 3 times and then switch off.
- b. During learning cycle the indicator and the LED of the learning relay will keep lighting , and then switch off after learning successfully.
- c. LED will blink 5 times when the memory is full (receiver has learnt 100 transmitters).
- d. The indicator will blink 3 times after one single key is deleted successfully; and it will blink 4 times when all the transmitters are deleted successfully.
- e. Indicator will blink 2 times when receive the signal from a learnt key; indicator will blink quickly when receive the signal from an un-learnt key.

### 2.Transmitter

- a. The LED will blink 3 times when power up.
- b. The LED will blink 3 times when battery voltage is low (< 2.1V).
- c. The LED will blink 5 times when battery voltage is extremely low (<1.8V).

## PRODUCTS LIST

Transmitter	IDRC 433 K1	Transmitter with one key	Receiver	IDS 433	Standard Receiver
	IDRC 433 K2	Transmitter with two keys		IDS 433+	Receiver for extended antenna*
	IDRC 433 K3	Transmitter with three keys	Accessories	IDATN	Extended antenna
	IDRC 433 K4	Transmitter with four keys	*: Extended antenna needed		

### SAFETY INSTRUCTIONS



The manufacturer of the door system is responsible for carrying out a risk assessment and installing in compliance with relevant national and international regulations and standards. Only trained and qualified personnel may install and setup.

The warranty is void if unauthorized install or attempted by unauthorized personnel.



# MAGIC SWITCH CHROMA

Touchless opening sensor for automatic doors



## APPLICATIONS



## TECHNOLOGY

Radar



## DESCRIPTION

The **MAGIC SWITCH CHROMA** is a touchless opening sensor for automatic doors. One hand motion in front of the sensor opens the door, completely contactless. Therefore, it is the perfect knowing act sensor for applications where hygiene is essential: hospitals, clean rooms, hotels & restaurants, pharmaceutical industries, airports, logistics and retail.

## VIDEO



Discover the product video on our youtube channel **BEA Sensors Europe**  
<https://bit.ly/3qo96YE>



### Touchless & hygienic

Opening solution reducing touchpoints in public spaces. A built-in silicone seal makes the product completely hermetic and the antimicrobial front face limits the spread of germs, bacteria and fungi.



### Multicolour LED & audio signal

With many possible configurations of LED colour, brightness and animation, the **MAGIC SWITCH CHROMA** offers great user experience. In addition, the audio feedback adds comfort for the visually impaired.



### Designed for every environment

Thanks to a discrete design, a high degree of protection (IP65) and flush or surface mounting possibilities, the **MAGIC SWITCH CHROMA** blends into any environment and is easy to install and keep clean.



### Variety of applications

Touchless opening of any automatic door, comfort for people with disabilities, foot switch and many more. Moreover, the **MAGIC SWITCH CHROMA ADV** is equipped with an external signal input which allows for even more applications like door lock functions in public restrooms.

## PRODUCT RANGE



### MAGIC SWITCH CHROMA - RECESSED



STD	02.0887 00000-00xx	02.0887 00000-01xx	02.0887 00000-02xx	02.0887 00000-03xx
ADV*	02.0892 00000-00xx	02.0892 00000-01xx	02.0892 00000-02xx	02.0892 00000-03xx

\* including audio signal, external input & extra settings



### MAGIC SWITCH CHROMA - SURFACE



STD	02.0888 00000-00xx	02.0888 00000-01xx	02.0888 00000-02xx	02.0888 00000-03xx
ADV*	02.0893 00000-00xx	02.0893 00000-01xx	02.0893 00000-02xx	02.0893 00000-03xx

\* including audio signal, external input & extra settings



### MAGIC SWITCH

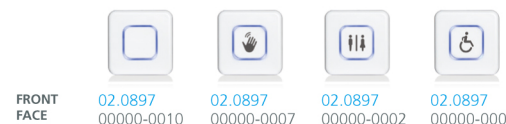


02.0886 00000-00xx	02.0886 00000-01xx
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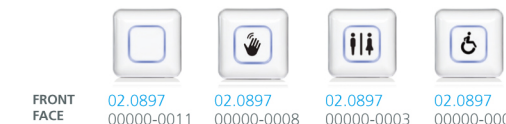
\* including 2 stickers



## ACCESSORIES

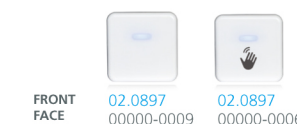


FRONT FACE	02.0897 00000-0010	02.0897 00000-0007	02.0897 00000-0002	02.0897 00000-0004
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FRONT FACE	02.0897 00000-0011	02.0897 00000-0008	02.0897 00000-0003	02.0897 00000-0005
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xx = depending on language selection for user's guide

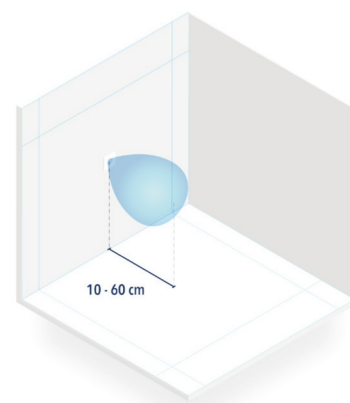


FRONT FACE	02.0897 00000-0009	02.0897 00000-0006
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SURFACE MOUNT	02.0897 00000-0001	STICKERS	02.0897 00000-0012
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## TECHNICAL SPECIFICATIONS

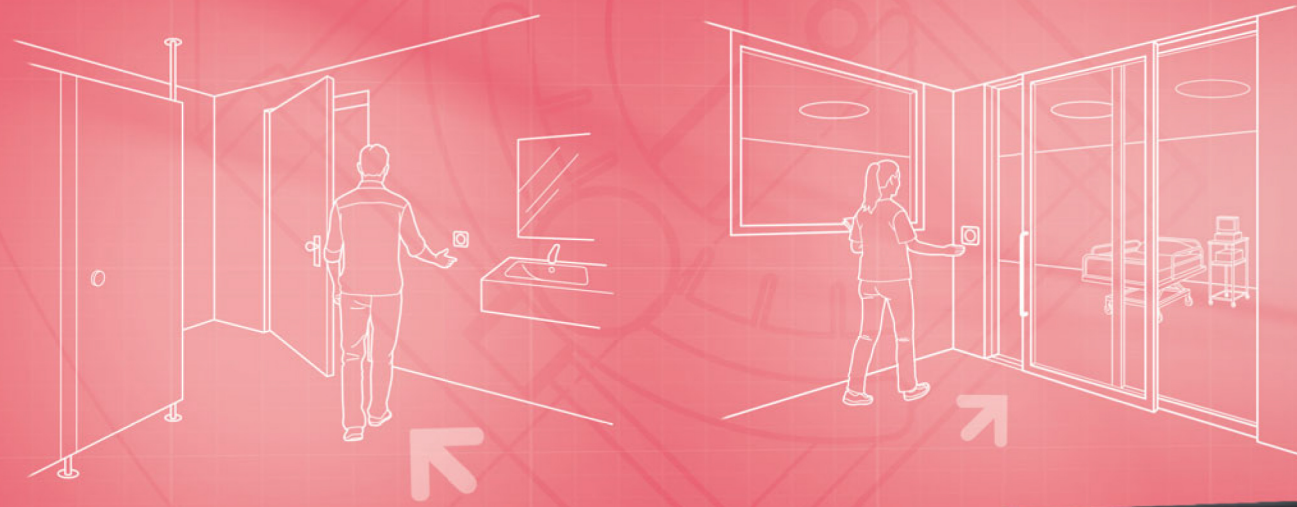


MAGIC SWITCH CHROMA TOUCHLESS OPENING SENSOR

<b>Technology</b>	Microwave motion sensor
<b>Radiated frequency</b>	24.150 GHz
<b>Radiated power</b>	< 20 dBm EIRP
<b>Radiated power density</b>	< 5mW/cm <sup>2</sup>
<b>Detection field size</b>	+/- 10 to 60 cm if movement towards sensor at 90° (adjustable)
<b>Detection mode</b>	Motion (bidirectional)
<b>Speed of target to create detection</b>	Min. 5Hz or +/- 3cm/s, Max. 200Hz or +/- 1.2m/s
<b>Supply voltage</b>	12 - 24V AC +/- 10% 12 - 24V DC +30% / - 10%
<b>Mains frequency</b>	50 - 60 Hz
<b>Power consumption</b>	< 1.5W
<b>Output</b>	Electronic relay (galvanic isolation - polarity free) Max voltage: 42V AC/DC Max current: 100 mA
<b>Output holdtime</b>	0.5s (in PULSE mode)
<b>Temperature range</b>	-20°C to +55°C
<b>Degree of protection</b>	MAGIC SWITCH: IP54 MAGIC SWITCH CHROMA: IP65 (if front face and seal mounted on a smooth surface)
<b>Material</b>	PMMA / PC MAGIC SWITCH CHROMA front face is treated with biomaster silver biocide tested to ISO 22196:2011. Please use biocides responsibly
<b>Recommended wiring cable</b>	Stranded cable up to 16 AWG - 1.5mm <sup>2</sup>

**DISCLAIMER** Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will BEA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information from this document or the products to which the information refers. BEA has the right without liability to change descriptions and specifications at any time.





# CleanSwitch

Contact-free switch for convenient activation of entrances with strict hygiene and design requirements

## Hygienic, attractive, integrable

- Contact-free, hygienic door opening
- Attractive design with visual feedback
- Compatible with standard flush-mounted boxes



reddot design award  
winner 2018

[www.bircher.com](http://www.bircher.com)

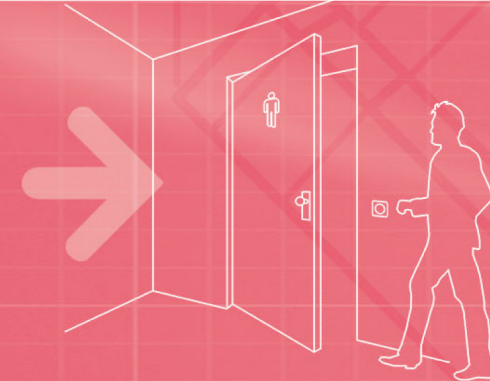
## CleanSwitch

Contact-free switch for convenient activation

### Hygienic in every application

Any place in which groups of people are found can be a breeding ground for germs and other pathogens. Contact surfaces – and in particular, door handles – are responsible for spreading vast amounts of bacteria and viruses, some of which can pose a real risk to health. This becomes critical when it affects healthcare facilities. Strict hygiene standards are also imposed in the catering industry, as well as other fields in which food is prepared.

CleanSwitch provides a contact-free, hygienic method of opening doors. It works by means of a deliberate hand gesture within the detection range of 10 to 50 centimetres – helping to stop germs in their tracks. Thanks to its attractive design featuring coloured LED feedback, CleanSwitch is an appealing, user-friendly addition to its environment. It takes just a few minutes to get the activation switch up and running and installation can be carried out in any standard flush-mounted box. The highly durable front can be treated using standard surface disinfectants in hospital areas. To ensure that it can be used without any problems in particularly moist or wet environments, CleanSwitch offers reliable protection that meets IP65.



## Benefits for you

### Hygiene

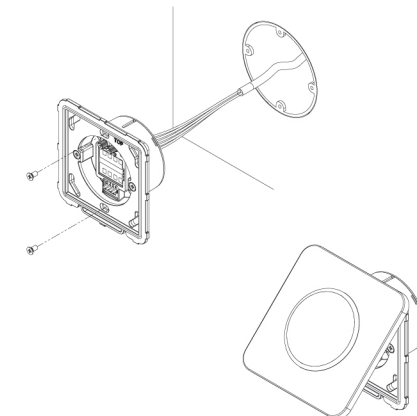
CleanSwitch has been specifically developed for use in buildings subject to strict hygiene requirements, such as healthcare facilities, sanitary areas and the catering industry. It activates entrance points using a contact-free method – a deliberate gesture made by the user – and otherwise keeps doors closed. This helps to prevent the spread of germs. CleanSwitch can also be treated with any standard cleaning agent or disinfectant.

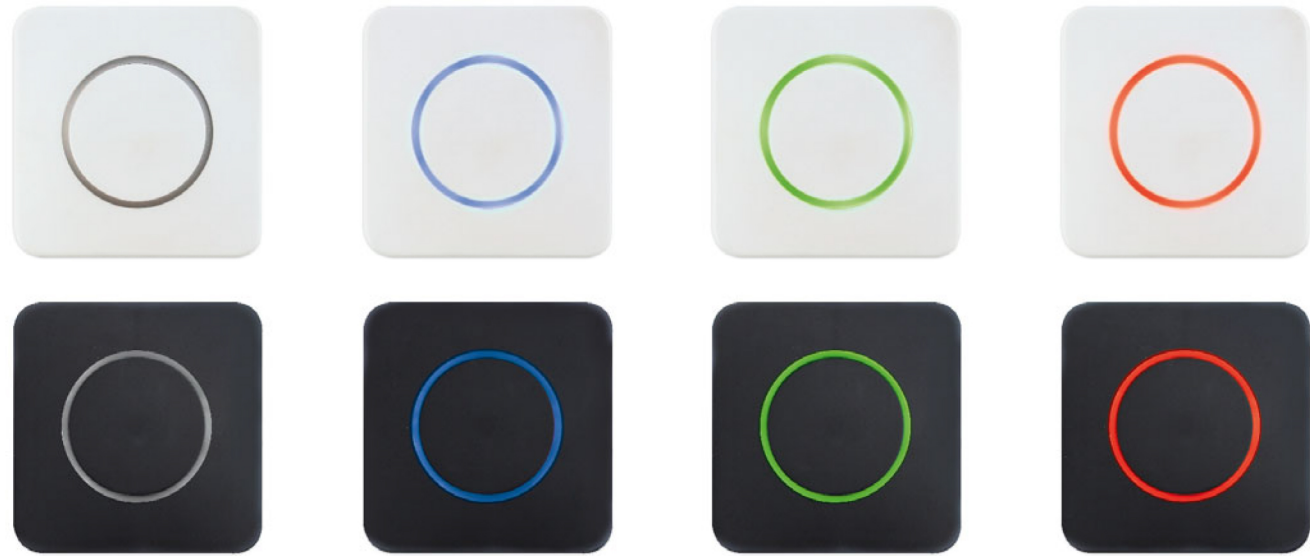
### Easy installation

The intelligent way in which the system has been designed ensures it is compatible with all standard flush-mounted boxes. CleanSwitch is extremely quick and easy to install. Set-up of the device is an intuitive process that requires no tools – and the integrated short guide provides a helping hand.

### Customising

CleanSwitch's visually appealing, straightforward design can be adapted in a whole range of ways to suit customers' preferences. It takes just a few seconds to change the colour, level of brightness and mode of the optical feedback – without tools. Not only that, but Bircher also supplies a wide selection of pictograms that can be printed onto the front of the device to make it even more user-friendly. Customised pictograms and logos can also be applied on request.





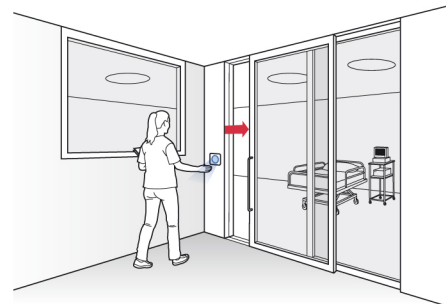
## Reliable in every application

### Situation

Hospitals, clinics, retirement homes

### Solution

- CleanSwitch provides a convenient, contact-free entrance activation method that does away with the need for contact with door handles – which are often contaminated. CleanSwitch can be treated with any standard cleaning agent or disinfectant. The high-contrast LED feedback is easy to identify for people with impaired vision.

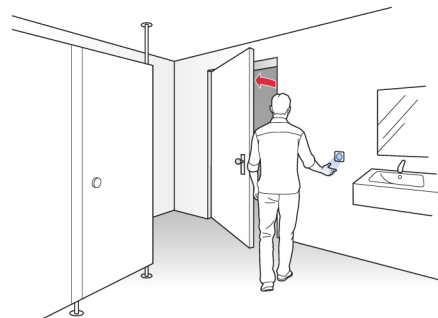


### Situation

Public sanitary areas

### Solution

- CleanSwitch provides a contact-free method of opening automatic doors to public sanitary areas, and prevents the spread of bacteria and other pathogens.

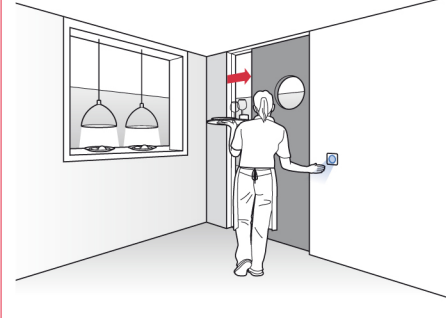


### Situation

Catering industry

### Solution

- CleanSwitch activates the door by means of a gesture. This means that the entrance to the kitchen is only opened when required – providing service staff with a convenient, hygienic door-opening solution.



## Technical data

### Mechanical data

Material	ASA / PC
Dimensions	88 × 88 × 38 mm (L×W×D)
Weight	55 g
Connection type	Plug terminals
Colour	White

### Electrical data

Operating voltage	12–24 V AC ±10% (50–60 Hz) 12–24 V DC +20%/–10%
Frequency range	50–60 Hz
Power consumption	~ 1 W
Output	Potential-free relay with changeover contact
Max. switching voltage	(DC) 1 A to 30 V, 0.5 A to 60 V (AC) 1 A to 60 V, 0.5 A to 125 V
Max. switching capacity	30 W (DC) / 60 VA (AC)
Output fall-delay time	Relay fall-delay time 0.3 s LED fall-delay time 2 s

### Technological data

Technology	Radar
Transmission frequency	24.125 GHz
Detection range	0.1–0.5 m
Detection mode	– Pulse mode: Detector is triggered by movement of hand – Toggle mode: first movement door open / second movement door closed
Detection speed	Min. 5 Hz or ± 3 cm/s Max. 200 Hz or ± 1.2 m/s

### Ambient conditions

Protection class	IP65
Storage / operation temperature	–20 °C to +60 °C
Air humidity	< 95% rel., non-condensing

### Electromagnetic compatibility standards

Directives	RoHS 2011/65/EU RED 2014/53/EU
Immision	EN 61000-6-2
Emission	EN 61000-6-3

### Note

Technical details and recommendations concerning our products are based on experience and are an aid for the orientation of the user. Details stated in our brochures and data sheets do not guarantee special properties of the products. This does not apply to special product properties confirmed by us in writing or individually. Subject to technical alterations.

## Configuration

**CleanSwitch** / **wt** / **close1**

<b>Device</b>	<b>Cover</b>	<b>Pictogram</b>
CleanSwitch	wt = white	blank
CleanSwitch Basic	bk = black	close1
	no = no cover	...

### Description

<b>CleanSwitch</b> With optical feedback						
---------------------------------------------	--	--	--	--	--	--

### CleanSwitch Basic

Without optical feedback		
--------------------------	--	--

### Pictograms

Printed on cover						
	blank	close1	open1	close2	open2	close3
	open3	close4	open4	hand	wheelchair	

### CleanSwitch Coverless

Device without cover with optical feedback	
--------------------------------------------	--

### CleanSwitch Basic Coverless

Device without cover	
----------------------	--

## Components and accessories

### Description

<b>Covers</b> Printed						
	blank	close1	open1	close2	open2	close3
White cover	368145	364980	364981	364982	364983	364984
Black cover	371142	371113	371114	371115	371116	371117
	open3	close4	open4	hand	wheelchair	
White cover	364985	364986	364987	364988	364989	
Black cover	371118	371127	371128	371140	371141	

**371199** CleanSwitch surface-mounted box, white IP65

**371200** CleanSwitch surface-mounted box, black IP65

# AX-MG-100 Microwave Touchless Switch

It is forbidden to use the device for other purposes, and The manufacturer cannot guarantee. The company is not responsible for incorrect installation or improper adjustment of the sensor.

## DESCRIPTION

CE 2150 FC U.S. FCC ID: LXS-IPV165F Canada IC: 6902A-IPV165US



1. Non-contact switch
2. Three panel selection
3. Easy to install without bottom box

## TECHNICAL SPECIFICATION

Microwave Module :	24.125GHz
Design size	L:85.9mm;W:85.9mm;H20mm
Speed of Target :	Min. ±3cm/s, Max. ±1.5m/s
Detection Range [Hand] :	5CM~40CM
Power supply:	DC 12~30V, AC 12~24V/1.4W
Operating temperature:	-20°C~+50°C/0~90%
Waterproof coefficient	IP55

Specifications are subject to changes without prior notice.  
All values measured in optimal conditions.

# Microwave Touchless Switch (AX-MG100)

## Instruction Manual

CE 2150 FC U.S. FCC ID: UXS-IPM165F Canada IC: 6902A-IPM165US

The MG100 is a highly sensitive, high performance switch designed to activate automatic doors by detecting the movement of a person or object. For the safe and accurate use of this product, please read this instruction manual carefully.



### 1 Technical specifications

**Technology :** Microwave Motion Sensor  
**Microwave Module :** 24.125GHz  
**Product Size :** 85.9mm × 85.9mm × 20mm (W × L × H)  
**Detection Range [Hand] :** ±5~40cm  
**Detection Mode :** Motion (Bi-directional)  
**Speed of Target :** Min. ±3cm/s, Max. ±1.5m/s

**Power Supply :** DC 12~30V, AC 12~24V  
**Current Consumption :** < 1.4W  
**Output :** Relay Contact (1A/24VDC)  
**Output Hold Time :** 1.2Sec. (PULSE mode)  
**Operating Temp/Humidity :** -20°C~+50°C/0~90%  
**International Protection :** IP55

### 2 General Information

**Optional Labels**

Label : A Label : B Label : C

**Disassemble Front Case**

Use a screwdriver to remove the front case.

### 3 Installation Guide

**1** Affix mounting template and drill holes

**2** Waterproof pads are attached to the inner case.

**How to remove the Clearwave cover after installation**

1. Insert flat headed screwdriver.  
2. Turn screwdriver gently anti-clockwise

**3** Fix the case to the wall

**4** Connect power and relay wires to the terminal block.

POWER DC 12~30V  
AC 12~24V

COM NO NC

**Caution**  
 Do not supply power during installation.  
 Do not disassemble or modify the device, it may cause fire or electric shock

### 4 Sensitivity Adjustment

Sensitivity is adjustable by setting the volume on the sensor body

Min. 5cm Max. 40cm

### 5 Toggle mode / Pulse mode

**Toggle mode :** Recommended for Switch applications. In toggle mode, a detection activates the relay and a second detection deactivates it again. In door applications, the door stays open after the first activation.

Min. 1s

Relay ON  
Relay OFF

DOOR OPENS DOOR CLOSSES

**Pulse mode :** Recommended for automatic door applications. In pulse mode, a detection activates the relay for a short period of time (depending on the duration of the movement in front of the sensor).

Relay ON  
Relay OFF

DOOR OPENS AND CLOSSES DOOR OPENS AND CLOSSES

### 6 Mounting Information

**1** The sensor can be placed behind tiles, wood, plaster, plastic and glass.

**2** Do not place the sensor behind metallic plates.

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

**4** Avoid moving objects in front of the sensor

# Wireless Touch Switch (Waterproof Type)



MSIP-CRM-RSN-TS400

Utility model Registration NO. 20-0472372

## TS400 (Transmitter) / R24 (Receiver)

Thank you for purchasing this wireless touch switch.  
This waterproof type wireless touch switch is designed to open and close an automatic door.  
Please carefully read the entire contents of the manual for safe and accurate use of the product.

## 1. Product composition and specification

	TS400 (Transmitter)		R24 (Receiver)	
<b>Components</b>	TS400 (waterproof type)	1EA	R24	1EA
	Double-sided tape	1EA	4P cable	1EA
	Battery 1.5V Size AAA	2EA	Fixing screws (Ø4 x 13)	2EA
	User's Manual	1EA	User's Manual	1EA
<b>Specifications</b>	Power supply	1.5V *2 (Size AAA Battery)	Power supply	DC 12~30V / AC 12~24V
	Duration of use	Approx. 24 months (100 Cycles / day)	Relay contact capacity	AC/DC 400V, 120mA
	Transmit frequency	2.4GHz	Receiving frequency	2.4GHz
	Transmit distance	Within 10m (When installed in steel structures : Within 2m)	Reception sensitivity	-90 dBm
	Power consumption	100mA Under	Power consumption	100mA Under
	Operating temp	-20°C ~ 50°C	Operating temp	-20°C ~ 50°C
	Dimension	40 x 150 x 13 (mm)	Dimension	99 x 43 x 21 (mm)

## 2. How to install the wireless touch switch transmitter (TS400)

※ Register the transmitter in the receiver by referring to No. 3 in the user's Manual (how to use the wireless touch switch receiver).

1. Insert batteries and assemble the case.
2. Attach the double-sided tape on the rear side of the assembled wireless touch switch (transmitter).
3. Check whether the transmitter rear switch is turned on.
4. Attach the wireless touch switch to the installation location.

**! Make sure to apply the double-sided tape when installing the wireless touch switch (To improve the waterproof function of the wireless touch switch).**

## 3. How to use the wireless touch switch receiver (R24)

You can select one of the following two methods to register a transmitter/receiver.

- ### ① How to register a DIP switch

Set the DIP switch for channel setting of the wireless touch switch (transmitter) and receiver in the same way while the power is not connected.

※ The DIP switch cannot be registered if the DIP switch of both the transmitter and receiver is turned off.
- ### ② How to input the button

(It is recommended to use when the DIP switch registration method for channel setting can be duplicated.)

※ The button type input method can be set when the DIP switch of both the transmitter and receiver is turned off.

  - #### 1. How to input

    - Connect the power to the receiver.
    - Press the switch (transmitter) for 3 seconds while pressing the receiver input button.
    - ● The red LED will flash and the input will be completed.
  - #### 2. How to delete

    - Connect the power to the receiver.
    - Press the switch (transmitter) for 3 seconds while pressing the receiver delete button.
    - ● The green LED will flash and deletion will be completed.
  - #### 3. How to delete all

    - Press the Register button and Delete button of the receiver at the same time for 5 seconds.
    - The green LED will flash three times and all deletion will be completed.

## 4. How to use the “Keep the automatic door open” function

The LED of the wireless touch switch will flash if you press the wireless touch switch for 5 seconds. Then, the receiver LED will also flash and the automatic door open signal will be outputted indefinitely. To release, press the wireless touch switch again.

## 5. Certification information

- **Company name:** RITS-N Co., Ltd.
  - **Manufacturer:** RITS-N Co., Ltd.
  - **Device name:** Terrestrial output wireless device (wireless data communication system)
  - **Manufacturing country:** Republic of Korea
  - **Model name:** TS400
- ※ This wireless device cannot provide the service related to personal safety due to possible signal interference.

# Wireless Automatic Door Switch for Disabled (WHD 4,8,9)

## Instruction Manual

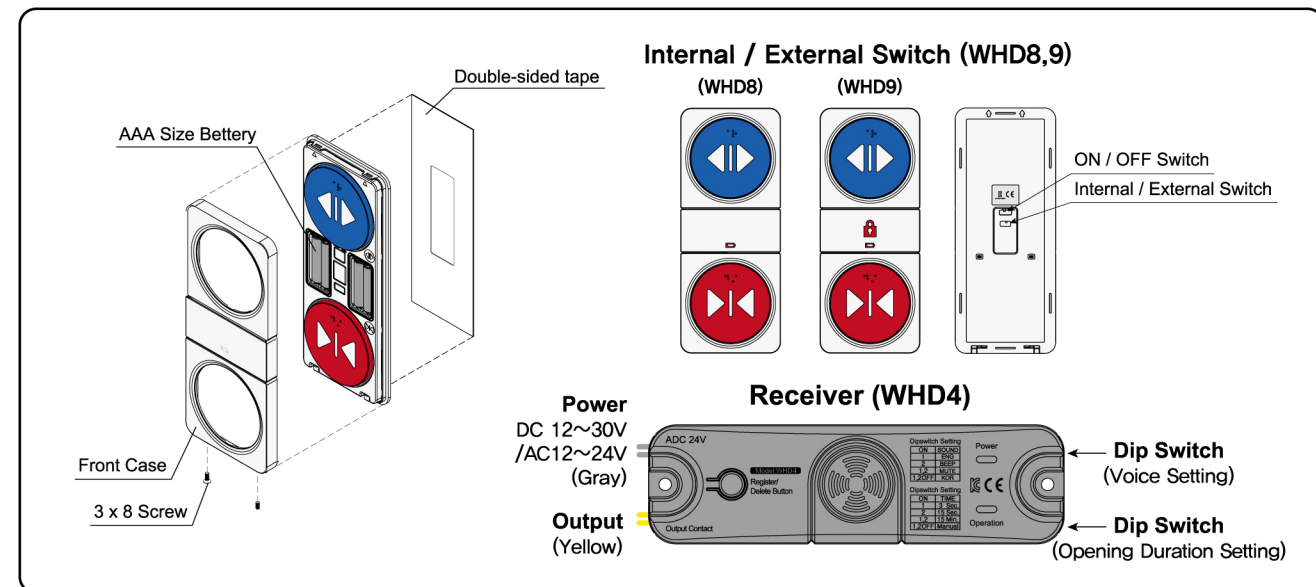


Thank you for purchasing the WHD switch.  
This switch is to be installed on an automatic sliding door or a device which needs a relay contact point to facilitate the access to an automatic sliding door by people with disabilities.

### 1 Specifications

Set	Receiver (WHD4)	1 EA		
	Internal Switch (WHD8) / External Switch (WHD9)	1 Each		
	Power Connector (Gray)	1 EA		
	Output Contact Point Connector (Yellow)	1 EA		
	Screw	2 EA (3 X 8 size)		
	Double-sided Tape	2 EA		
	Battery	1.5V AAA Size 8 EA		
	Instruction	1 Copy		
Spec	Receiver (WHD4)		Internal Switch (WHD8) / External Switch (WHD9)	
	Power	DC12~30V/AC12~24V	Rated Frequency	2.455GHz
	Relay Contact Capacity	1A/30VDC, 0.5A/125VDC	Battery	1.5V AAA 4EA Each
	Operating Temp	-20℃~50℃	Operating Temp	-20℃~50℃
	Product Size	150×43×25mm	Product Size	90×220×15mm
	Current Consumption	Standby: 30mA / Operation: 80mA (for DC 24V)	International Protection	IP65

### 2 General Information



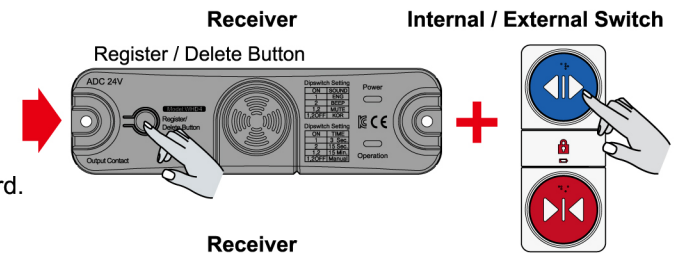
### 3 Operation Check & Caution

- 1) Input **DC12-30V/AC12-24V** for power supply. Make sure power LED is on.
- 2) Put AAA size battery into internal & external switches.
- 3) **Please register internal & external switch to receiver.**
- 4) Ensure the receiver (WHD4) is wired correctly.
- 5) **Immediately change batteries when aural alert is heard.**
- 6) Although the WHD8 and WHD9 are IP65 water resistant, excessive water cleaning can cause damage to the internal components.

### 4 User Manual

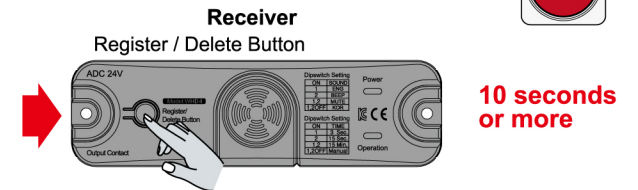
#### 1) ID Registration

- Power on the receiver.  
Press together register/delete button and the open button on the internal/external switch.
- When ID is registered, "DOOR IS OPENING" is heard.



#### 2) ID Deletion

- Power on the receiver and press register/delete button for more than 10 seconds.  
The buzzer sounds and your ID is deleted successfully.



#### 3) The door operates every time you press the open/close button of the switch.

However, if you close the door from the inside, a lock sign is blinking 5 times on the switch from the outside and the door is not opened from the outside.

#### 4) Emergency Open

- Keep pressing the open button until 'Occupied' sounds 10 times.

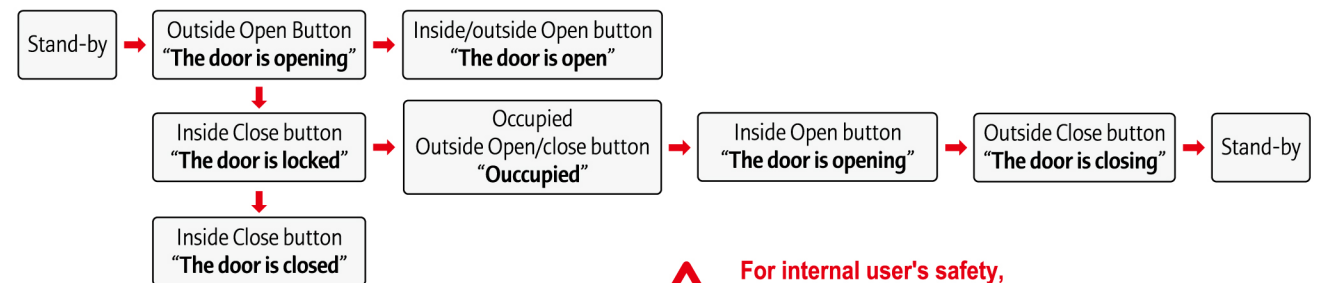
#### 5) Opening Duration Setting (Default : Manual)

Dip Switch	Time	Dip Switch	Time
	After 3 sec, close the door		After 15 min, close the door
	After 15 sec, close the door		Manual (Toggle) open or close by pressing button

#### 6) Voice Language Selection

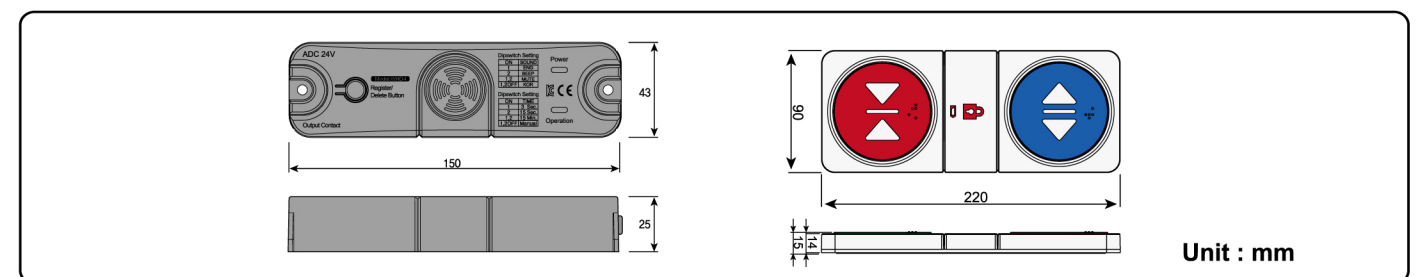
Dip Switch (Default : ENG)			
	: ENG		: BEEP
	: KOR		: MUTE

#### 7) Switch Operation Announcement



**For internal user's safety, the door can be opened by an external user 1 hour after the door has been closed from the inside.**

### 5 External Dimensions





# AX-WPS-100 Wireless non-switch sensor

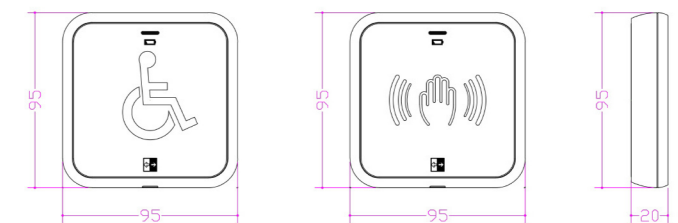
This equipment is used for automatic control and automatic door systems. Non-professionals should not install it.

## DESCRIPTION



### Features:

- Wireless Technology
- IP65
- Made in Korea



## TECHNICAL SPECIFICATION

Power supply :	DC 3V
Sensing distance:	1~15cm ±5cm / LED or BUZZER
Output:	2.4G
Operating Temp / Humidity :	-20°C~50°C / 0~90%
Transmitting distance:	<10m (2m or less when attached a metal structure)
Battery Lifespan:	Approx. 12 months (500 usages per day)
Product size / weight	95 x 95 x 20 mm

Specifications are subject to changes without prior notice.  
All values measured in optimal conditions.

# Wireless Touchless Switch (WPS100)

## Instruction Manual

The WPS100 is a wireless proximity switch that is easy to install. It can control the opening and closing of automatic doors and similar devices by detecting hand or object movement without direct contact. For the safe and correct use of the product, please read this instruction manual carefully.

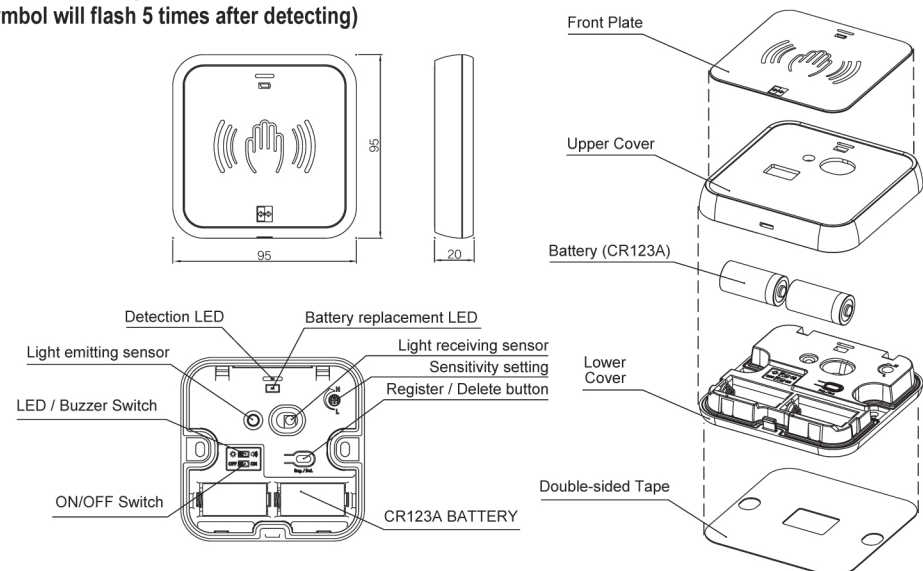


### 1 Product composition and specification

Components	Quantity	Specifications
WPS100	1EA	
Doublesided Tape	1EA	
Battery (CR123A)	2EA	
Fixing Screw (4*16)	2EA	
Front Plate (2 types)	2EA (Hand and Wheelchair)	
User Manual	1Copy	
Power Supply	DC3V	
Technology	Infrared - Reflective	
Detection Range / Method	1~15cm ±5cm / LED or BUZZER	
Detecting Target	Hand or Object (Touchless)	※ Detecting distance varies depending on the color of the object
Output	2.4GHz	
Transmitting distance	<10m (2m or less when attached a metal structure)	
Reaction sensitivity	<1sec.	
Battery Lifespan	Approx. 12 months (500 usages per day)	
Current Consumption	<0.5mWh	
Operating Temp / Humidity	-20℃~50℃ / 0~90%	
International Protection	IP65	
Product size / weight	95 x 95 x 20 mm	

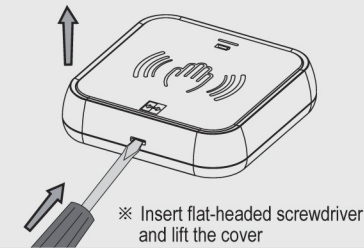
### 2 General Information

- LED Red : Detecting
- LED Red : Replace battery  
(Battery symbol will flash 5 times after detecting)

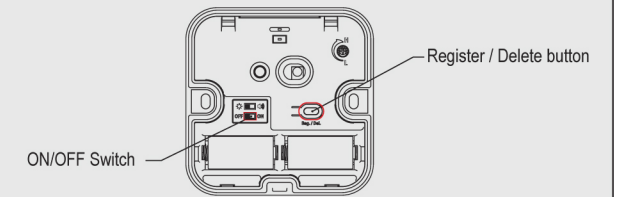


### 3 Installation Guide

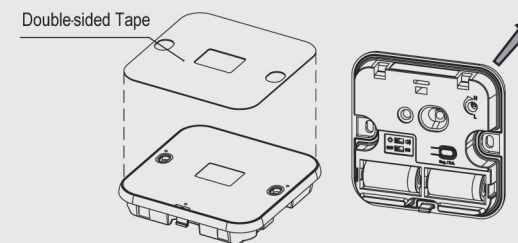
**1** If the protective film is not removed from the Front Plate it may interfere with the function of this product, therefore remove the protective film from the Front Plate and disassemble the WPS100 cover using a screwdriver.



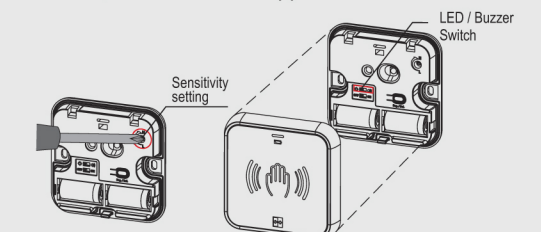
**2** Install batteries and turn the WPS100 ON. Register the transmitter using the Register/Delete button (See section 4).



**3** Attach the Lower Cover to where you want to install the sensor using the Double-sided Tape and/or screws provided.

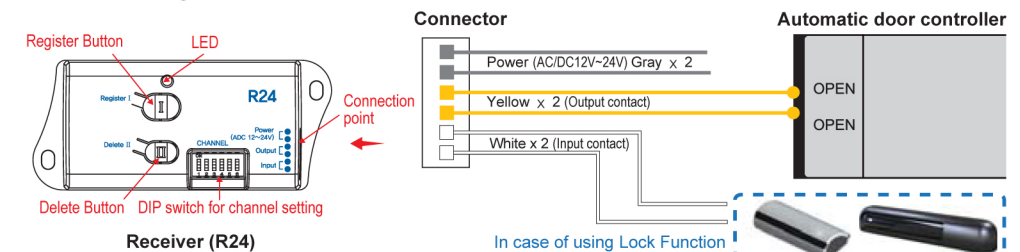


**4** Set the detection distance as required by adjusting the Sensitivity setting using a screwdriver. Select whether you want detection to be indicated with an LED or a Buzzer, then attach the Upper Cover to the sensor.



### 4 Registering the WPS100 transmitter with the R24 receiver

※ Up to 10 AerWave can be registered with one WR-24 receiver.



※ Make sure to check that all dip switches are in the down (OFF) position before proceeding

#### 1. How to register an WPS100 Transmitter

- Connect power to the WR-24 receiver.
- Press the Register/Delete button on the AerWave switch for 3 seconds whilst simultaneously pressing the Register I button on the WR-24 receiver.
- ● The red LED will flash on the WR-24 to indicate registration.

#### 2. How to delete an WPS100 Transmitter

- Connect power to the WR-24 receiver.
- Press the Register / Delete button on the AerWave switch for 3 seconds whilst simultaneously pressing the Delete II button on the WR-24 receiver.
- ● The blue LED will flash on the WR-24 to indicate deletion.

#### 3. How to delete all registered WPS100 transmitters

- Press the Register I button and Delete II button on the WR-24 receiver at the same time for 5 seconds.
- ● The blue LED will flash three times indicating that all registered AerWave transmitters have been deleted.

### 5 Precautions

- 1** Remove the protective film attached to the front plate
- 2** Do not install in places exposed to strong sunlight
- 3** Avoid moving objects in front of the sensor
- 4** Do not install in humid areas

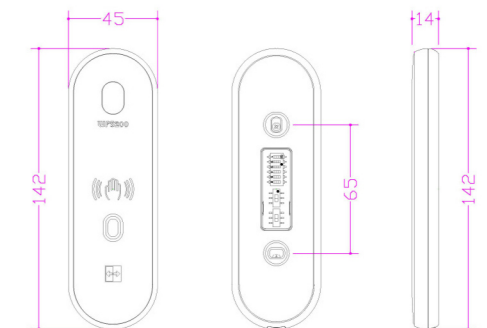




# AX-WPS-200 Wireless Touchless switch

This equipment is used for automatic control and automatic door systems. Non-professionals should not install it.

## DESCRIPTION



### Features:

- Wireless Technology
- IP65
- Made in Korea

## TECHNICAL SPECIFICATION

Power supply :	DC 3V
Sensing distance :	1~15cm ±5cm / LED or BUZZER
Output :	2.4G
Operating Temp / Humidity :	-20°C~50°C / 0~90%
Transmitting distance :	<10m (2m or less when attached a metal structure)
Battery Lifespan :	Approx. 12 months (500 usages per day)
Product size :	45 x 142 x 13.5 mm



大港倉 9  
KAOSHUNG PORT DEPOT 9

OPEN HOURS

日 一 四  
SUN. THU.  
10:00 - 21:00

五 六  
FRI. SAT.  
10:00 - 22:00

自動門  
AUTO DOOR



接受自行車 嬰兒推車 寵物不離身  
ACCEPT BICYCLE INFANT STROLLER PET

倉 9

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