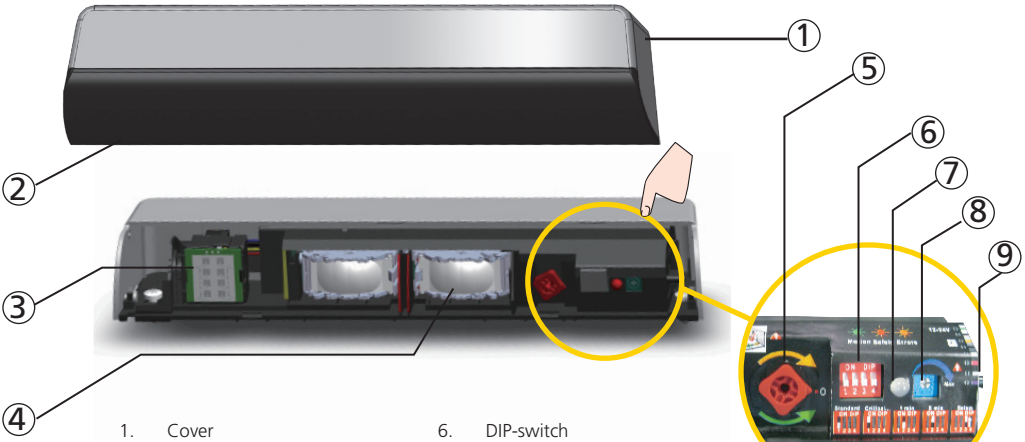
ZENSAFE COMBO

Opening & safety 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.

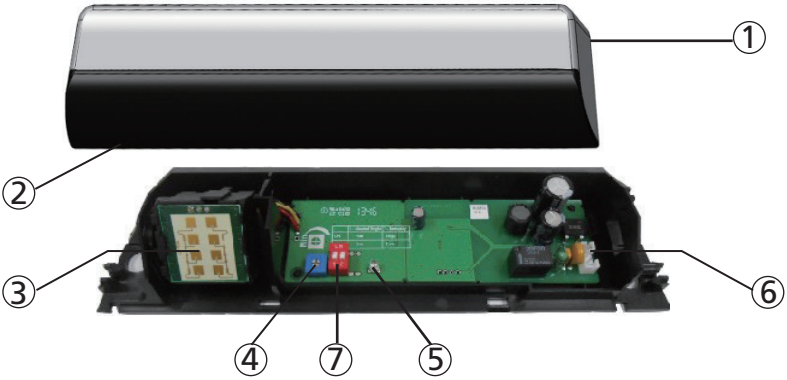
DESCRIPTION

ZENSAFE



1. Cover
2. Front cover
3. Microwave antenna
4. Infrared lens
5. IR-curtain adjustment screw
6. DIP-switch
7. LED
8. Microwave sensitive potentionmeter
9. Cable plug

ZEN



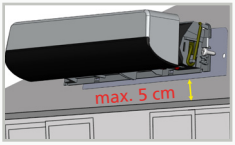
1. Cover
2. Front cover
3. Microwave antenna
4. Microwave sensitive Potentionmeter
5. LED
6. Connector
7. DIP-switch

TECHNICAL SPECIFICATIONS

	ZENSAFE		ZEN
Supply voltage:	12 V - 24 V AC +/-10% ; 12 V - 30 V DC 0%/+10%		12 V - 24 V AC +/-10% ; 12 V - 30 V DC
Power consumption:	< 3 W (VA)		< 2W (VA)
Mounting height:	3m (Max.)		3m (Max.)
Temperature range:	-25 °C to +55 °C		-20 °C to +55 °C
Degree of protection:	IP54		IP54
	GREEN LED	RED LED	
Detection mode:	**Motion** Min. detection speed: 5 cm/s	**Presence** Typical response time: <128 ms (max. 500 ms)	**Motion** Min. detection speed: 5 cm/s
Technology:	**Microwave doppler radar** Transmitter frequency: 24.150 GHz Transmitter radiated power: < 20 dBm EIRP Transmitter power density: < 5 mW/cm²	**Active infrared with background analysis** Spot diameter: 6 cm (typ) Number of spots: 24 by curtain Number of curtains: 1	**Microwave and microprocessor** Transmitter frequency: 24.150GHz Transmitter radiated power: < 20 dBm EIRP Transmitter power density: < 5 mW/cm²
Angle:	From 15 ° to 45 ° vertical (adjustable)	From -5 ° to +8 ° (adjustable)	From 15° to 45°
Output:	Relay (free of potential) Max. contact voltage: 42 V AC/DC Max. contact current: 1 A (resistive) Max. switching power: 30 W (DC)/60 VA (AC)	Relay (free of potential) Max. contact voltage: 42 V AC/DC Max. contact current: 1 A (resistive) Max. switching power: 30 W (DC)/60 VA (AC)	Relay (free of potential) Max. contact voltage: 42 V AC - 60 VA DC Max. contact current: 1 A (resistive) Max. switching power: 30 W (DC)/60 VA (AC)
Hold time output signal:	0.5s	0.5s	0.5s
Max. detection field:	4m x 2m (mounting height = 2.2m)		4m x 2m (mounting height = 2.2m)

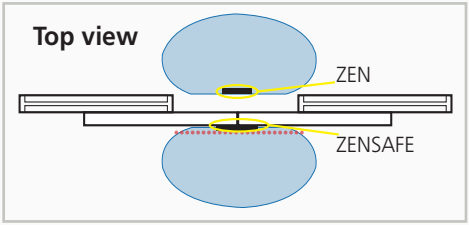
Specifications are subject to changes without prior notice.
All values measured in specific conditions.

1 MOUNTING & WIRING



ZENSAFE

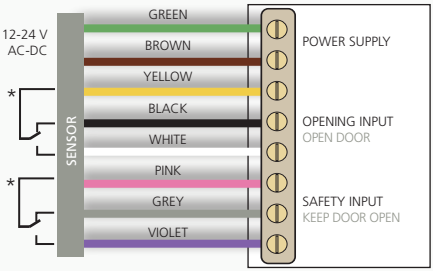
ZEN



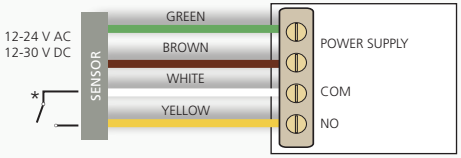
Please noted that this product installation do not comply with standards

- The door control unit and the door cover profile must be correctly earthed.
- For optimum safety, please make sure that **ZENSAFE** is installed on the side near the door leaf.
- Please use combination sensors on both sides of the doors to improve safety and function of the door.

ZENSAFE



ZEN

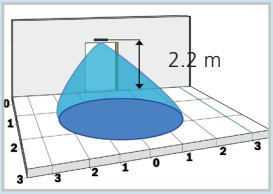


* Output status when sensor is operational

2 RADAR FIELD - OPENING IMPULSE (ZENSAFE & ZEN)

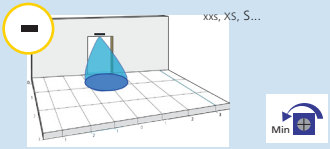
GREEN LED

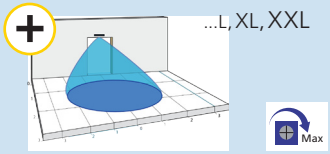
FIELD SIZE



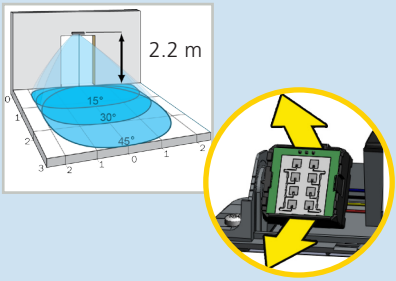
The maximum detection field is 4 m x 2 m.

The size of the radar field also varies according to the mounting height of the sensor.





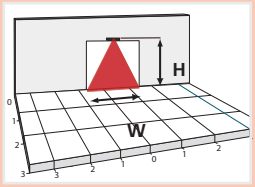
ANGLE



3 INFRARED FIELD - SAFETY (ZENSAFE)

RED LED

WIDTH

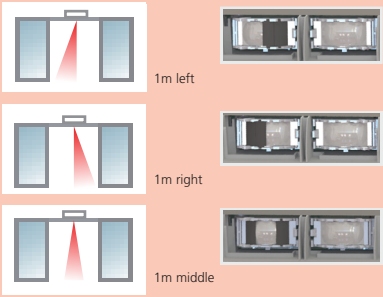


Max. mounting height: 3 m

Use the mask to get different areas of detection field.

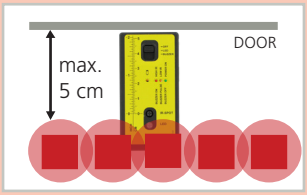
H	W
2.20 m	2.20 m
2.50 m	2.50 m
3.00 m	3.00 m

Measured in optimal conditions.



* Mask is an accessary.

ANGLE

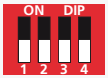


Spot finder LED

4 SETUP

ZENSAFE

Dip switch



	1	2	3	4
▲ON	Critical environment/outdoor *	Presence time 5min	Push from OFF to ON, start **Assistance setting**	Pulse frequency B
▼OFF	Indoor	Presence time 1min		Pulse frequency A

Assistance setting

* When **ZENSAFE** is installed in critical environment/outdoor, push on DIP-switch 1, the sensitivity decreased, and the immunity increased.

ZEN

Dip switch

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

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

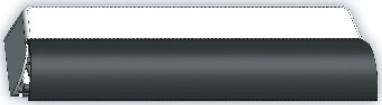
It is recommended to clean the optical parts at least once a year or more often if required due to environmental conditions.

5 OPEN AND CLOSE

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

OPEN

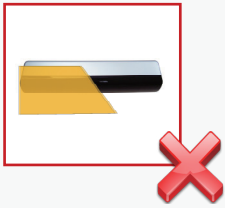
Align the top edge first and then push at both end, to close the front face.



CLOSE

6 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.

FACTORY VALUES

TROUBLESHOOTING

ZENSAFE

 The ORANGE LED flashes every second.	The sensor goes into security mode.	1 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 RED LED flashes quickly after a setup.	The sensor sees the door during the setup.	1 Check the angle of the IR-curtains. 2 Launch a new setup. *Attention: Do not stand in the detection field!*
 The RED LED lights up sporadically.	The sensor vibrates.	1 Check if the sensor is fastened firmly. 2 Check position of prism and cover.
	The sensor sees the door.	1 Launch a setup and adjust the IR angle.
 The GREEN LED lights up sporadically.	Ghosting	1 Change radar antenna angle.
	The sensor vibrates.	1 Check if the sensor is fastened firmly. 2 Check position of cable and cover.
	The sensor sees the door or other moving objects.	1 Remove the objects if possible. 2 Change radar antenna. 3 Change radar field size (sensitivity).
The reaction of the door does not correspond to the LED-signal.		1 Check wiring.

ZEN

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.	1 Increase the tilt angle and/or reduce the sensitivity.
	When closing, the door creates vibrations picked up by the sensor	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 potentionmeter. 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 repaired are made or attempted by unauthorized personnel.
Avoid touching and electronic and optical componets.

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