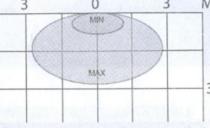


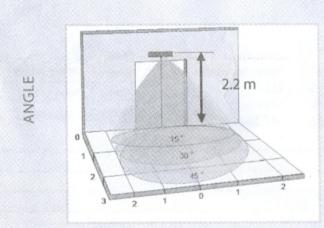
|   | MIN |   |   |
|---|-----|---|---|
|   | MAX |   |   |
|   |     |   |   |
| 3 | 0   | 3 | N |



Angle: Mounting height: 2.2m

Angle: Mounting height: 4.0m

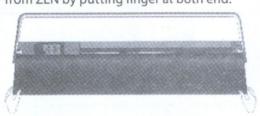
Depth of sensing field: vertical angle of the planar antenna.





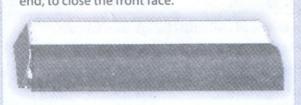
Open and close.

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

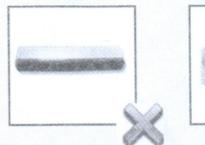


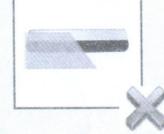
OPEN

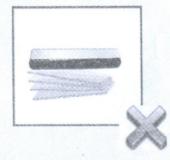
Align the top edge first and then push at both end, to close the front face.

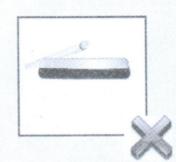


CLOSE









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.  | 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. | Increase the tilt angle and/or reduce the sensitivity.  Make sure that the sensor is correctly fixed.                     |
| The door will not close.<br>LED is OFF. | ON-OFF switch at door control is in wrong position or faulty.   | 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                                      | Increase the sensitivity via potentionmeter  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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Angleur, November 2010 Jean-Pierre Valkenberg, Authorized representative The complete declaration of conformity is available on our website: www.bea.be



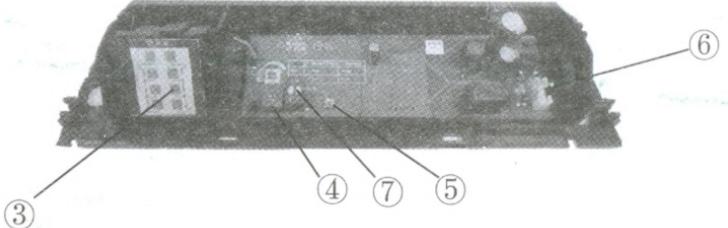
Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer. The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of

# ZEN/ZEN VF

Opening sensor for automatic sliding doors

## DESCRIPTION





1. Cover

- 2. Front cover
- 3. Planar antenna
- 4. Potentionmeter
- 5. LED
- 6. Connector
- DIP-Switch

| Brown  | and the same of |
|--------|-----------------|
| Green  | Power supply    |
| White  | Relay (COM)     |
| Yellow | Relay (NO)      |

### **TECHNICAL SPECIFICATIONS**

| Technology:                       | microwave and microprocessor         |
|-----------------------------------|--------------------------------------|
| Transmitter frequency:            |                                      |
| Transmitter radiated power:       | 24.125GHz                            |
|                                   | <20 dBm EIRP                         |
| Transmitter power density:        | < 5mW/cm²                            |
| 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) |
| Maximum speed of ZEN VF           | 180 cm/s                             |
| 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 of | 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                                 |
|                                   |                                      |

### **D-SIGNALS**

| >- | The ORANGE LED flashes every second.                                     | The sensor goes into security mode.               | 1 Cut and restore power supply.   |
|----|--|---|---|
| 1  | The ORANGE LED flashes 1 x.  | The sensor signals an internal fault.             | Cut and restore power supply.  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.                          |
| X  | The RED LED flashes quickly after a setup.                               | The sensor sees the door during the setup.        | Check the angle of the IR-curtains.  Launch a new setup.  Attention: Do not stand in the detection field! |
|    | The RED LED lights up  | The sensor vibrates.                              | <ol> <li>Check if the sensor is fastened firmly.</li> <li>Check position of prism and cover.</li> </ol>   |
|    | sporadically.  | The sensor sees the door.                         | 1 Launch a setup and adjust the IR angle.   |
|    | The GREEN LED  | Ghosting  | 1 Change radar antenna angle.   |
|    | lights up<br>sporadically.   | The sensor vibrates.                              | Check if the sensor is fastened firmly. Check position of cable and cover.                                |
|    |  | The sensor sees the door or other moving objects. | Remove the objects if possible. Change radar antenna. Change radar field size (sensitivity).              |
|    | The reaction of<br>the door does not<br>correspond to the<br>LED-signal. |   | 1 Check wiring.   |
|    |  |   |   |

### 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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Angleur, November 2010 Jean-Pierre Valkenberg, Authorized representative The complete declaration of conformity is available on our website: www.bea.be



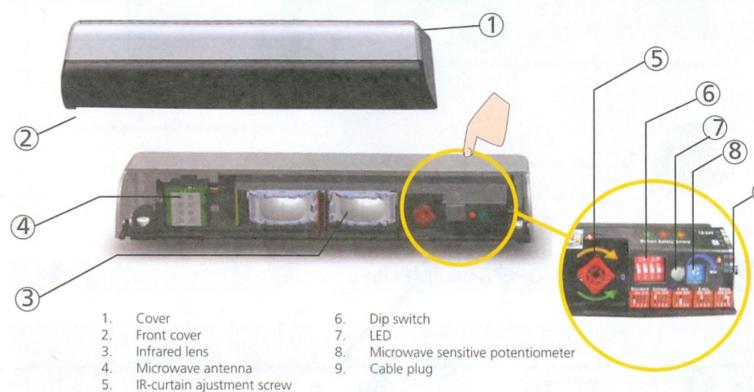


## ZENSAFE

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 & safety sensor for automatic sliding doors

### DESCRIPTION

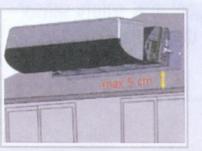


### TECHNICAL SPECIFICATIONS

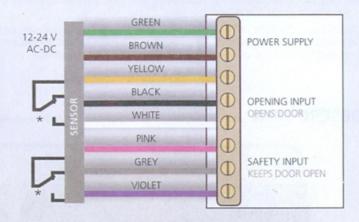
| Supply voltage:       | 12 V - 24 V AC +/-10% ; 12 V - 30 V D  | C 0%/+10%   |
|-----------------------|--|---|
| Power consumption:    | < 3 W                                  |   |
| Mounting height:      | 1.8 m to 3 m                           |   |
| Temperature range:    | -25 °C to +55 °C                       |   |
| Degree of protection: | IP54                                   |   |
|                       | GREEN                                  | RED LED   |
| Detection mode:       | Motion<br>Min. detection speed: 5 cm/s | Presence Typical response time: <128 ms (max. 500 ms) |

| ACCURAGE TO THE TOTAL OF THE STATE OF THE ST | Min. detection speed: 5 cm/s   | Typical response time: <128 ms (max. 500 ms) |
|--|--|--|
| echnology:   | Microwave doppler radar  | Active infrared with background analysis     |
|  | Transmitter frequency: 24.150 GHz  | Spot diameter: 6 cm (typ)                    |
|  | Transmitter radiated power: < 20 dBm EIRP  | Number of spots: 24 by curtain               |
|  | Transmitter power density: < 5 mW/cm2  | Number of curtains: 1                        |
| angle:   | From 15 ° to 45 ° vertical (adjustable)  | From -5 ° to +8 ° (adjustable)               |
| Output:  | Relay (free of potential)  | Relay (free of potential)                    |
|  | Max. contact voltage: 42 V AC/DC   | Max. contact voltage: 42 V AC/DC             |
|  | Max. contact current: 1 A (resistive)  | Max. contact current: 1 A (resistive)        |
|  | Max. switching power: 30 W (DC)/60 VA (AC)   | Max. switching power: 30 W (DC)/60 VA (AC)   |
| lold time output signal:   | 0.5 s  | 0.5 s  |
|  | Charles and the control of the contr |  |
|  |  |  |

### **MOUNTING & WIRING**







\* Output status when sensor is operational

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

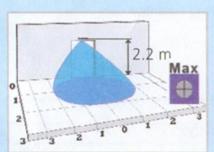
**RADAR FIELD - OPENING IMPULSE** 

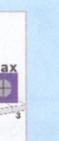


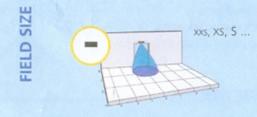
Please make sure the cable conectior is maintained the IP class.







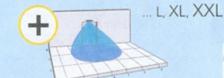






The maximum detection field is 4 m x 2 m.

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

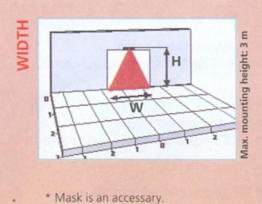




**INFRARED FIELD - SAFETY** 







Use mask to get different areas of detection field.

2.20 m 2.20 m 2.50 m 2.50 m 3.00 m 3.00 m

Measured in optimal conditions.

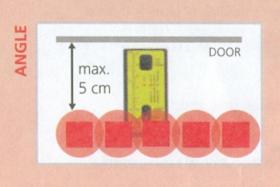
















### **SETUP**

Dip switch





Step out of the detection field during setup.

|              | 1                              | 2                  | 3                          | 4           |
|--------------|--------------------------------|--------------------|----------------------------|-------------|
| <b>▲</b> ON  | Critical environment/outdoor * | Presence time 5min | Push from OFF to           |             |
| <b>▼</b> OFF | Indoor                         | Presence time 1min | ON,start assistance set up | Reservation |

Assistance setting





OPEN+CLOSE





\* The critical environment/outdoor sensitivity is decreased, and the immunity is increased.

**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.

RED-GREEN OFF