



Download the BEA DECODER app  
for a quick overview  
of settings

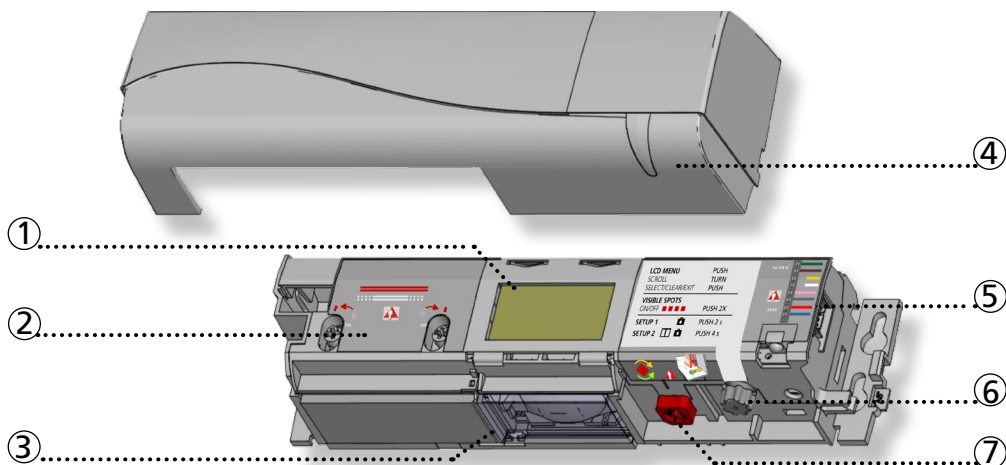


# IXIO-S01 I

## SAFETY SENSOR FOR AUTOMATIC INDUSTRIAL DOORS

User's Guide for software version 0501 and higher  
(refer to tracking label on product)

### DESCRIPTION

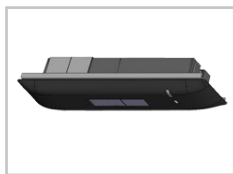


- |                                |                                     |
|--------------------------------|-------------------------------------|
| 1. LCD                         | 4. cover                            |
| 2. IR-curtain width adjustment | 5. main connector                   |
| 3. IR-lenses                   | 6. main adjustment knob             |
|                                | 7. IR-curtain angle adjustment knob |

### ACCESSORIES



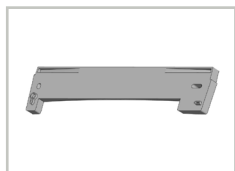
BA: Bracket accessory



CA: Ceiling accessory



RA: Rain accessory



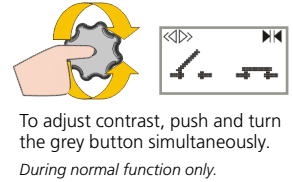
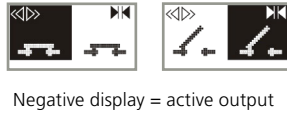
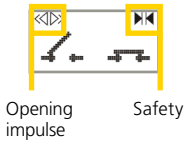
CDA: Curved door accessory



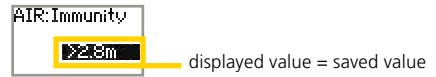
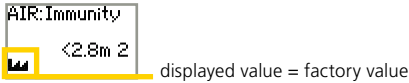
9 V battery

## HOW TO USE THE LCD?

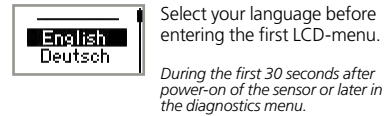
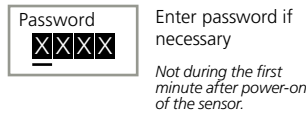
### DISPLAY DURING NORMAL FUNCTIONING



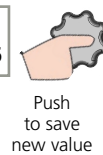
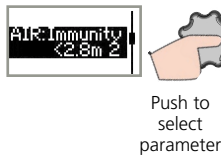
### FACTORY VALUE VS. SAVED VALUE



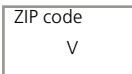
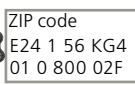
### NAVIGATING IN MENUS



### CHANGING A VALUE



### CHANGING A ZIP CODE



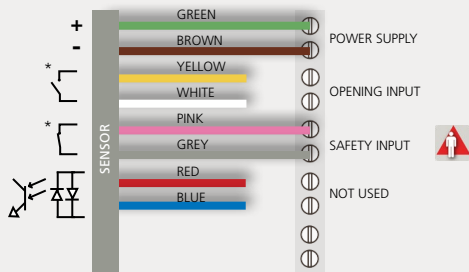
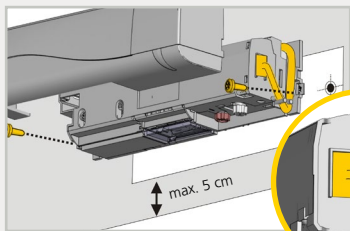
Validate the last digit in order to activate the new ZIP code:  
- v = valid ZIP code, values will be changed accordingly  
- x = invalid ZIP code, no values will be changed  
- v/x = valid ZIP code, but from a different product.  
Only available values will be changed.

### VALUE CHECK WITH REMOTE CONTROL



Pressing a parameter symbol on your remote control, displays the saved value directly on the LCD-screen.  
Do not unlock first.

## 1 MOUNTING & WIRING



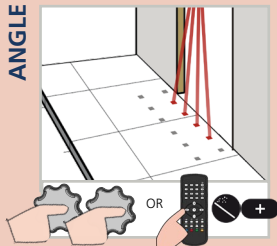
**TIP!**

Wiring is compatible with the IRIS.

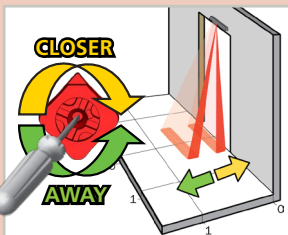
\* Depending on OUTPUT CONFIGURATION settings

## 2 INFRARED SAFETY FIELD

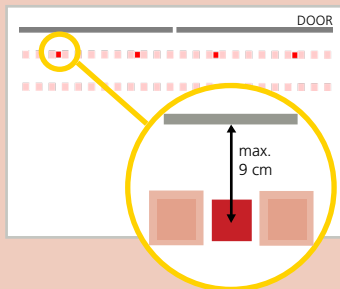
ANGLE



Activate the visible\* spots to verify the position of the IR-curtain.

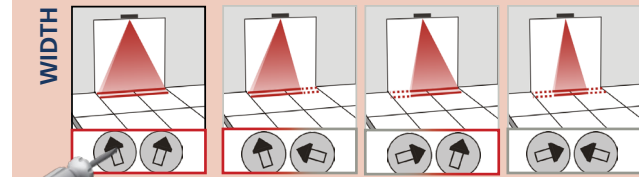


If necessary, adjust the IR-curtain angle (from  $-7^\circ$  to  $4^\circ$ , default  $0^\circ$ ).

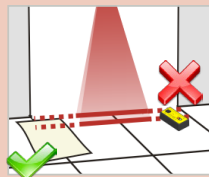


\* Visibility depends on external conditions. When spots are not visible, use the Spotfinder to locate the curtains.

WIDTH



Part of the detection field can be masked to reduce it. The arrow position determines the width of the detection field.



Additional adjustments are possible by LCD or remote control (see p. 5)

Always verify the actual detection field width with a piece of paper and not the Spotfinder, which detects the whole emitted field.

The size of the detection field varies according to the mounting height and the settings of the sensor. The full door width must be covered.

### 3 SETTINGS

Choose one of the following presettings or adjust the sensor manually (see p.5):



**STANDARD:** standard in- and outdoor installations

Presettings  
Standard



**CRITICAL ENVIRONMENT:** critical installations due to surroundings or weather

Presettings  
Critical env.



**SHOPPING STREET:** installations in narrow streets with pedestrian traffic

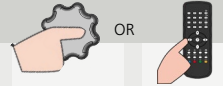
Presettings  
Shopping str.



### 4 SETUP



STEP OUT OF THE INFRARED FIELD!



#### SETUP 1 (QUICK)

reference picture



#### SETUP 2 (ASSISTED)

test of full door cycle +  
reference picture



TEST THE GOOD FUNCTIONING OF THE INSTALLATION BEFORE LEAVING THE PREMISES!

# OVERVIEW OF SETTINGS

## BASIC



Back  
More

## PRESETTINGS

standard

critical env.

shopping street

factory values for IR immunity and IR number

increased immunity

increased immunity, 1 curtain

IR: IMMUNITY

low

normal

high

higher

highest

normal

high

↓ < 2.8 m

↑ > 2.8 m

IR: FREQUENCY

A

B

Sensors mounted close to each other should have a different frequency.

More  
Back

## ADVANCED



Back  
More



factory value

IR: WIDTH



--	--	--	--	--	--	--	--	--	--	--	--

Always additionally adjust the arrow position on the sensor with a screwdriver.

IR: NUMBER

service mode

1

2

service mode = no IR detection during 15 minutes (maintenance).

IR: PRESENCE TIME

motion

15 s

30 s

1 min

2 min

5 min

10 min

20 min

60 min

infinite

IR: OUTPUT

NO  
NC

NO  
NC

NO  
NC

NO  
NC

NO: normally open  
NC: normally closed

REDIRECTION

safety

safety + opening

0 presence detection on safety input  
1 presence detection on safety and opening input

FACTORY RESET

full reset

partial reset

partial: outputs are not reset

More  
Back

## DIAGNOSTICS



ZIP CODE



all parameter settings in zipped format  
(see application note on ZIP CODE)

ID #

unique ID-number

ERROR LOG

last 10 errors + day indication

IR: SPOTVIEW

view of spot(s) that trigger detection

IR: C1 ENERG

signal amplitude received on curtain 1













IR: C2 ENERG

signal amplitude received on curtain 2

- POWERSUPPLY
- OPERATINGTIME
- RESET LOG
- PASSWORD
- LANGUAGE
- ADMIN

- supply voltage at power connector
- power duration since first startup
- delete all saved errors
- LCD and remote control password (0000= no password)
- language of LCD-menu
- enter code to access admin mode

## TROUBLESHOOTING

E1	 ORANGE LED flashes 1 x.	The sensor signals an internal fault.	<ol style="list-style-type: none"> <li>1 Replace sensor.</li> </ol>
E2	 ORANGE LED flashes 2 x.	The power supply is too low or too high.	<ol style="list-style-type: none"> <li>1 Check power supply (in the diagnostics menu of the LCD).</li> <li>2 Check wiring.</li> </ol>
E4	 ORANGE LED flashes 4 x.	The sensor receives not enough IR-energy.	<ol style="list-style-type: none"> <li>1 Decrease the angle of the IR-curtains.</li> <li>2 Increase the IR-immunity filter (values &gt;2.8 m).</li> <li>3 Deactivate 1 curtain.</li> </ol>
E5	 ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	<ol style="list-style-type: none"> <li>1 Slightly increase the angle of the IR-curtains.</li> <li>2 Decrease the IR-immunity filter (values 1-3 &lt;2.8 m).</li> </ol>
E8	 ORANGE LED flashes 8 x.	IR power emitter is faulty.	<ol style="list-style-type: none"> <li>1 Replace sensor.</li> </ol>
	 ORANGE LED is on.	The sensor encounters a memory problem.	<ol style="list-style-type: none"> <li>1 Cut and restore power supply.</li> <li>2 If orange LED lights up again, replace sensor.</li> </ol>
	 RED LED flashes quickly after an assisted setup.	The sensor sees the door during the assisted setup.	<ol style="list-style-type: none"> <li>1 Move the IR-curtains away from the door.</li> <li>2 Install the sensor as close to the door as possible. If needed, use a bracket accessory.</li> <li>3 Launch a new assisted setup.</li> </ol>
	 RED LED lights up sporadically.	The sensor vibrates.	<ol style="list-style-type: none"> <li>1 Check if the sensor is fastened firmly.</li> <li>2 Check position of cable and cover.</li> </ol>
	 RED LED lights up sporadically.	The sensor sees the door.	<ol style="list-style-type: none"> <li>1 Launch an assisted setup and adjust the IR angle.</li> </ol>
	 RED LED lights up sporadically.	The sensor is disturbed by external conditions.	<ol style="list-style-type: none"> <li>1 Increase the IR-immunity filter to value 3.</li> <li>2 Select presetting 2 or 3.</li> </ol>
	 The LED and the LCD-display are off.		<ol style="list-style-type: none"> <li>1 Check wiring.</li> </ol>
	The reaction of the door does not correspond to the LED-signal.		<ol style="list-style-type: none"> <li>1 Check output configuration setting.</li> <li>2 Check wiring.</li> </ol>
	The LCD or remote control does not react.	The sensor is protected by a password.	<ol style="list-style-type: none"> <li>1 Enter the right password. If you forgot the code, cut and restore the power supply to access the sensor without entering a password during 1 minute.</li> </ol>

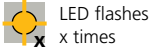
## LED-SIGNAL



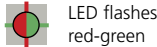
Presence detection



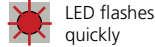
LED flashes



LED flashes x times



LED flashes red-green



LED flashes quickly

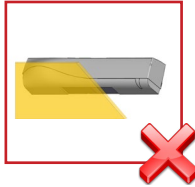


LED is off

## INSTALLATION



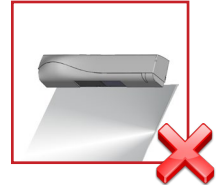
The sensor should be fixed firmly to avoid extreme vibrations.



Do not cover the sensor.

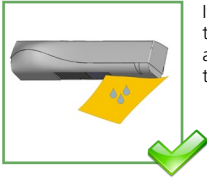


Avoid moving objects and light sources in the detection field.



Avoid highly reflective objects in the infrared field.

## MAINTENANCE

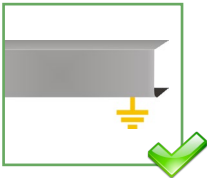


It is recommended to clean the optical parts at least once a year or more if required due to environmental conditions.

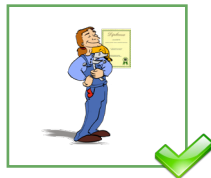


Do not use aggressive products to clean the optical parts.

## SAFETY



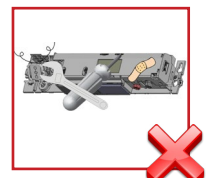
The door control unit and the door cover profile must be correctly earthed.



Only trained and qualified personnel may install and setup the sensor.



Always test the good functioning of the installation before leaving the premises.



The warranty is invalid if unauthorized repairs are made or attempted by unauthorized personnel.



- The device cannot be used for purposes other than its intended use. All other uses cannot be guaranteed by the manufacturer of the sensor.
- 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.
- The manufacturer of the sensor cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

## TECHNICAL SPECIFICATIONS

Supply voltage:	12 V - 24 V AC +/-10% ; 12 V - 30 V DC +/-10%
Power consumption:	< 2.5 W
Mounting height:	2 m to 4 m
Temperature range:	-25°C to +55°C; 0-95% relative humidity, non condensing
Degree of protection:	IP54
Noise:	< 70 dB

\* The Equipment must be powered by a SELV limited power source ensuring double insulation between primary voltages and the Equipment supply. The supply current should be limited to max 3A.



Detection mode:	Presence Typical response time: < 200 ms (max. 500 ms)
Technology:	Active infrared with background analysis Spot: 5 cm x 5 cm (typ) Number of spots: max. 24 per curtain Number of curtains: 2
Output:	Solid-state-relay (potential and polarity free) Max. contact current: 100 mA Max. contact voltage: 42 V AC/DC Holdtime: 0.3 to 1 s

Specifications are subject to changes without prior notice.  
All values are measured in specific conditions and with a temperature of 25°C.



BEA SA | UEGE Science Park | Allée des Noisetiers, 5 - 4031 ANGLEUR [BELGIUM] | T +32 4 361 65 65 | F +32 4 361 28 58 | info-eu@beasensors.com | www.beasensors.com



BEA hereby declares that the IXIO-SO1 is in conformity with European directives 2014/30/EU and 2011/65/EU.

The complete declaration of conformity is available on our website.



This product should be disposed of separately from unsorted municipal waste