

JOIN OUR
COMMUNITY!



IXIO-SP

Safety sensor
for automatic sliding doors

(according to EN 16005 and DIN 18650)

User's Guide for software version 0600 and higher
(refer to tracking label on product)

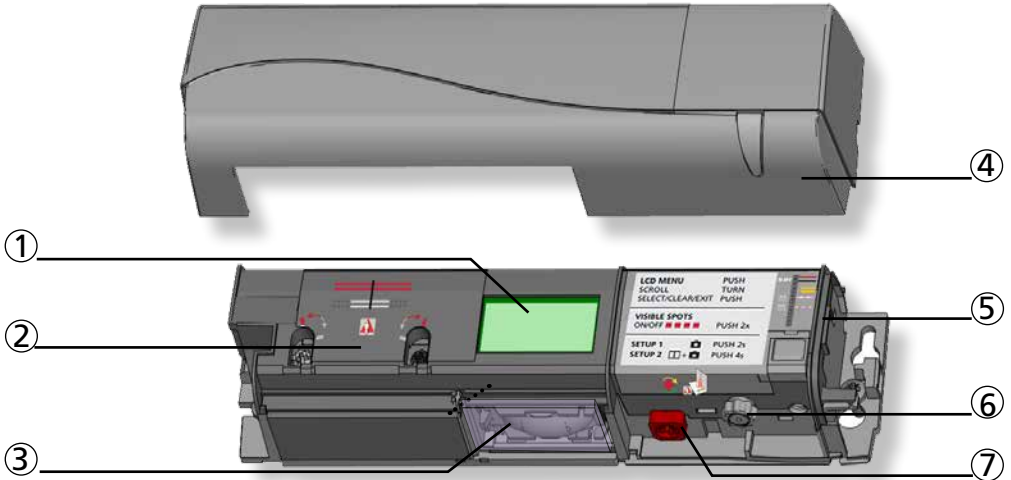
ENGLISH



Download the BEA DECODER app
for a quick overview of settings



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



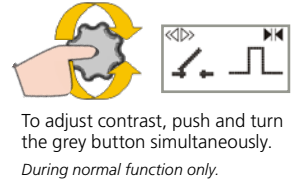
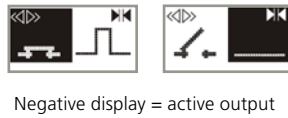
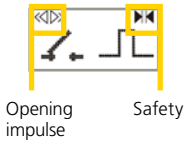
CDA: Curved door accessory



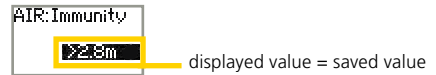
9 V battery

HOW TO USE THE LCD?

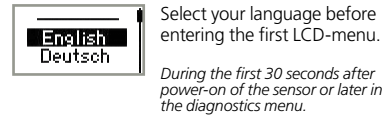
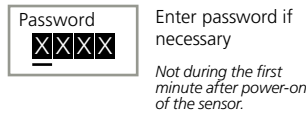
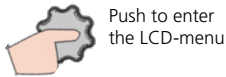
DISPLAY DURING NORMAL FUNCTIONING



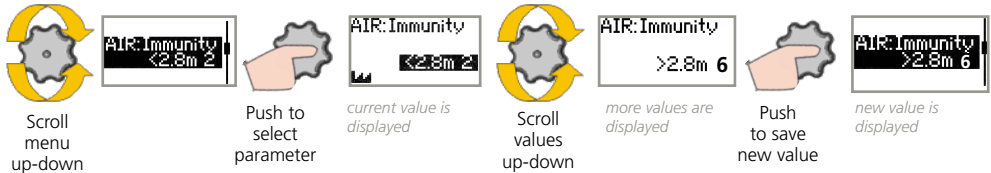
FACTORY VALUE VS. SAVED VALUE



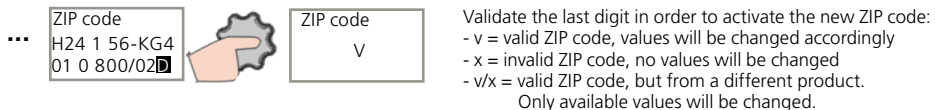
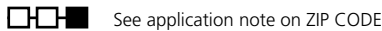
NAVIGATING IN MENUS



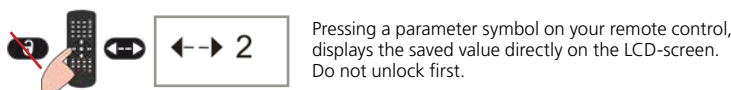
CHANGING A VALUE



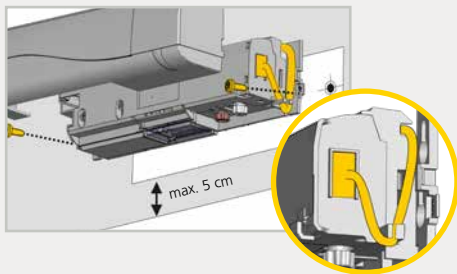
CHANGING A ZIP CODE



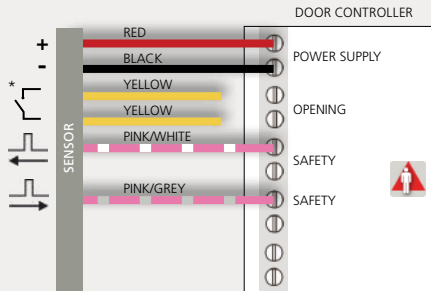
VALUE CHECK WITH REMOTE CONTROL



1 MOUNTING & WIRING



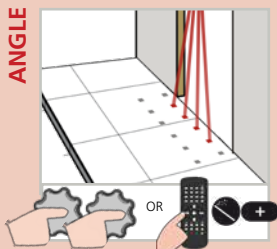
Mount the sensor securely.



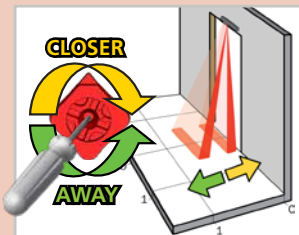
* Depending on OUTPUT CONFIGURATION settings

⚠ Do not invert polarity.

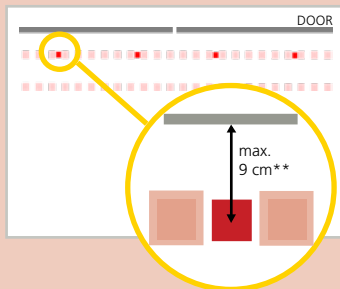
2 INFRARED SAFETY FIELD



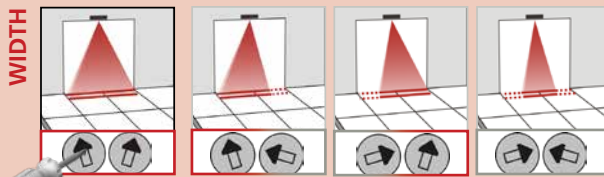
Activate the visible* spots to verify the position of the IR-curtain.



If necessary, adjust the IR-curtain angle (from -7° to 4° , default 0°).



* Visibility depends on external conditions. When spots are not visible, use the Spotfinder to locate the curtains.
 ** The distance between the inner curtain of the inside door sensor and the inner curtain of the outside door sensor should always be smaller than 20 cm. The distance to the door leaf depends therefore on the thickness of the door leaf.



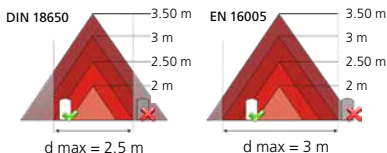
Part of the detection field can be masked to reduce it. The arrow position determines the width of the detection field.



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.

Mounting height	Detection width
2.00 m	2.00 m
2.20 m	2.20 m
2.50 m	2.50 m
3.00 m	d max
3.50 m	d max



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):



OR



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!



OR



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

For conformity to EN 16005 or DIN 18650 at a mounting height of 2.8 m or more, use values 6 and 7.

IR: FREQUENCY

A

B

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

More
Back

ADVANCED



Back
More

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). This value excludes conformity of the door system to EN 16005 and DIN 18650.

IR: PRESENCE TIME

motion

15 s

30 s

1 min

2 min

5 min

10 min

20 min

60 min

infinite

min. value for DIN18650: 1 min
min. value for EN16005: 30 s

IR: OUTPUT

pulse

PULSE INPUT

negative

positive

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

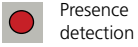
- supply voltage at power connector
- power duration since first startup
- delete all saved errors
- LCD and remote control password (0000= no password)
- language of LCD-menu
- enter code to access admin mode

* Setting in combination with an accessory. For more information, see user's guide of accessory.

TROUBLESHOOTING

E1	 ORANGE LED flashes 1 x.	The sensor signals an internal fault.	<ol style="list-style-type: none"> 1 Replace sensor.
E2	 ORANGE LED flashes 2 x.	The power supply is too low or too high.	<ol style="list-style-type: none"> 1 Check power supply (in the diagnostics menu of the LCD). 2 Check wiring.
E4	 ORANGE LED flashes 4 x.	The sensor receives not enough IR-energy.	<ol style="list-style-type: none"> 1 Decrease the angle of the IR-curtains. 2 Increase the IR-immunity filter (values ≥ 2.8 m). 3 Deactivate 1 curtain.
E5	 ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	<ol style="list-style-type: none"> 1 Slightly increase the angle of the IR-curtains.
E8	 ORANGE LED flashes 8 x.	The sensor is disturbed by external elements.	<ol style="list-style-type: none"> 1 Eliminate the cause of disturbance (lamps, rain cover, door controller housing properly grounded).
	 ORANGE LED is on.	The sensor encounters a memory problem.	<ol style="list-style-type: none"> 1 Cut and restore power supply. 2 If orange LED lights up again, replace sensor.
	 RED LED flashes quickly after an assisted setup.	The sensor sees the door during the assisted setup.	<ol style="list-style-type: none"> 1 Move the IR-curtains away from the door. 2 Install the sensor as close to the door as possible. If needed, use a bracket accessory. 3 Launch a new assisted setup.
	 RED LED lights up sporadically.	The sensor vibrates.	<ol style="list-style-type: none"> 1 Check if the sensor is fastened firmly. 2 Check position of cable and cover.
		The sensor sees the door.	<ol style="list-style-type: none"> 1 Launch an assisted setup and adjust the IR angle.
		The sensor is disturbed by external conditions.	<ol style="list-style-type: none"> 1 Increase the IR-immunity filter to value 3. 2 Select presetting 2 or 3.
	 The LED and the LCD-display are off.		<ol style="list-style-type: none"> 1 Check wiring.
	The reaction of the door does not correspond to the LED-signal.		<ol style="list-style-type: none"> 1 Check output configuration setting. 2 Check wiring.
	The LCD or remote control does not react.	The sensor is protected by a password.	<ol style="list-style-type: none"> 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.

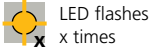
LED-SIGNAL



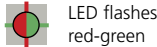
Presence detection



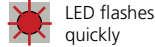
LED flashes



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.

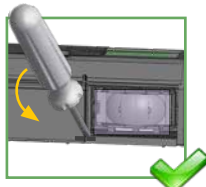


Avoid highly reflective objects in the infrared field.

MAINTENANCE



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

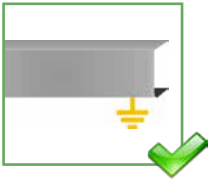


For complete cleaning, remove both windows by inserting a screwdriver into the notches located between the two windows.



Do not use aggressive products to clean the optical parts.

SAFETY



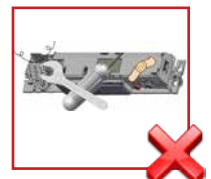
The door control unit and the door cover profile must be correctly earthed.



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 sensor cannot be used for purposes other than its intended use.
- The manufacturer of the door system incorporating the sensor is responsible for compliance of the system to applicable national and international regulations and safety standards.
- The installer must read, understand and follow the instructions given in this manual. Improper installation can result in improper sensor operation.
- The manufacturer of the sensor cannot be held responsible for injury or damage resulting from incorrect use, installation or inappropriate adjustment of the sensor.

TECHNICAL SPECIFICATIONS

Supply voltage*:	12 V - 30 V DC +/-10%
Power consumption:	< 2.5 W
Mounting height:	2 m to 3.5 m
Temperature range:	-25°C to +55°C; 0-95% relative humidity, non condensing
Degree of protection:	IP54 (IEC/EN 60529)
Noise:	< 70 dB



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

Input*:
Pulse polarity: positive or negative (adjustable)
Impedance:
- Positive pulse: 2 K to ground
- Negative pulse: 470 R to + sensor power supply
Pulse voltage: 6 V to 30 V
Pulse duration: 4 µs to 500 µs
Duty cycle: max. 50%

Output*:
Pulse polarity: negative
Level:
- Standby: Pulse from V to ground
- Detection: V Supply
Topology: op-collector with 4.7 K to 3.3 V
Max. sink current: 25 mA with external 1 K to 24 V

Optional: Solid-state-relay
(potential and polarity free)
Max. contact current: 100 mA
Max. contact voltage: 42 V DC / 30 V AC

Safety standards: EN ISO 13849-1 PL "c" CAT. 2
(under the condition that the door control system monitors the sensor at least once per door cycle)

EN 16005 (protective devices)
DIN 18650 (protective devices)
EN 12978

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



* External electrical sources must be within specified voltages, max 15W and ensure double insulation from primary voltages.

BEA SA | UEQE 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 this product is in conformity with the European directives :
2014/30/EU (EMC), 2006/42/EC (Machinery), 2011/65/EU (RoHS).
EC-type examination certificate number: 44 205 13089612.

The complete declaration of conformity is available on our website.



This product should be disposed of separately from unsorted municipal waste.

