IXIO-ST

Safety sensor
for automatic sliding doors

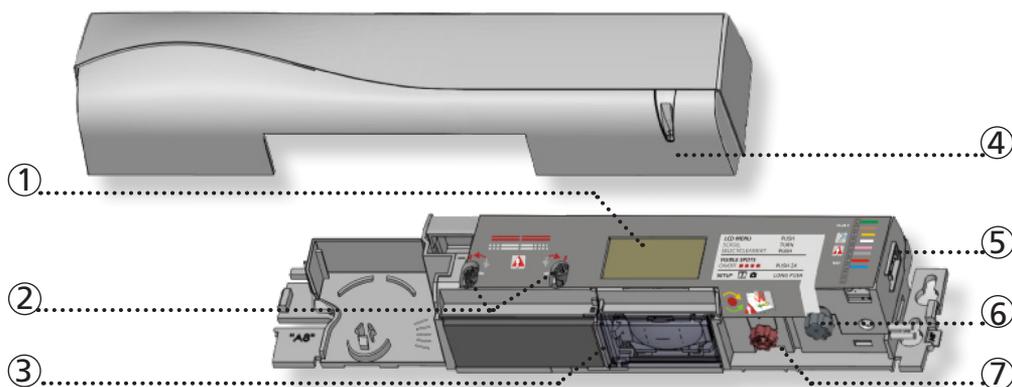Download the BEA DECODER app
for a quick overview
of settings

ANDROID APP ON
Google play

Available on the
App Store

c(UL)us LISTED

DESCRIPTION

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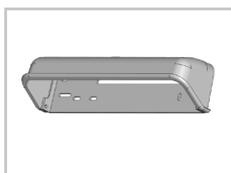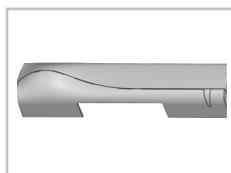7. IR-curtain angle adjustment knob

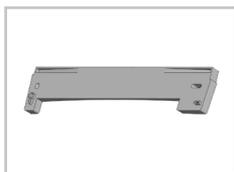## ACCESSORIES

10IMB: Bracket accessory

10ICA: Ceiling accessory

10IRA: Rain accessory

35.1286: black cover
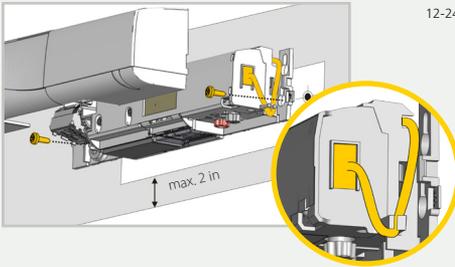35.1302: white cover
35.1303: silver cover

10CDA: Curved door accessory

10IXIOSPACER: Spacer

1 MOUNTING & WIRING

RED	POWER SUPPLY
BLACK	
WHITE	
GREEN	AUX INPUT
YELLOW	
BROWN	
BLUE	SAFETY INPUT
PURPLE	TEST
PURPLE	OUTPUT

12-24 V AC, 50/60 Hz
12-35 V DC
Max 2.5 W

max. 2 in

Mounting is compatible with the WIZARD.
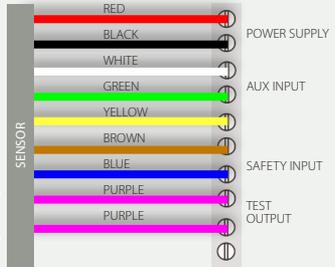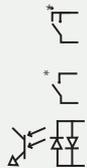
* Output status when sensor is operational

Sensor connectivity (power and relays) must utilize only the supplied harness.

Sensor power must be supplied from a Class 2 supply source limited to 15 W.

Sensor is intended to be monitored for proper operation by the door operator or system.

Harness shall be routed separated from any Mains or non-Class 2 voltage cable for correct operation or shall be rated for the Mains voltage, and suitable protection and routing means shall be used according to National and Local Codes to prevent damage to the harness.

3 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° to 4°, default 0°).
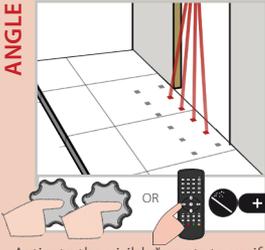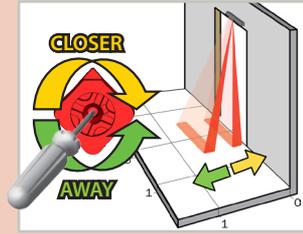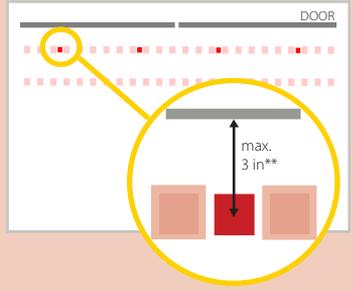
DOOR

max. 3 in**

* 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 8 in.

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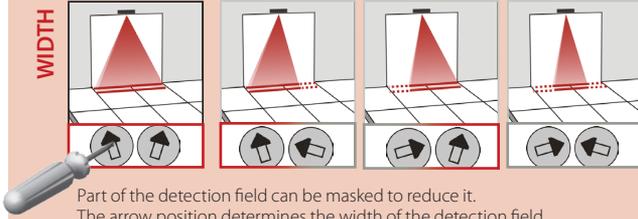
Part of the detection field can be masked to reduce it.
The arrow position determines the width of the detection field.

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

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

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.

Mounting height	Detection width
6.5 ft	6.5 ft
7.2 ft	7.2 ft
8.2 ft	8.2 ft
9.8 ft	d max
11.5 ft	d max

4 SETUP

⚠ STEP OUT OF THE INFRARED FIELD!

OR

SETUP 1 (QUICK)
reference picture

📷 + 🔴⚪👆 ⏱ 2 s

SETUP 2 (ASSISTED)
test of full door cycle +
reference picture

↔↔ + 📷 + 🔴⚪👆 ⏱ 4 s 0

⚠ TEST THE PROPER OPERATION OF THE INSTALLATION BEFORE LEAVING THE PREMISES!

HOW TO USE THE LCD?

DISPLAY DURING NORMAL FUNCTIONING

Activation impulse Safety

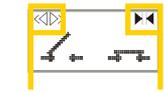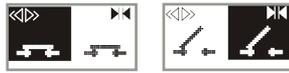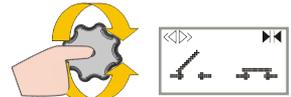Negative display = active output

To adjust contrast, push and turn the grey button simultaneously.

During normal function only.

FACTORY VALUE VS. SAVED VALUE

AIR:Immunity <2.8m 2   displayed value = factory value

AIR:Immunity >2.8m   displayed value = saved value

NAVIGATING IN MENUS

Push to enter the LCD-menu

Password X X X   Enter password if necessary

Not during the first minute after power-on of the sensor.

English Deutsch   Select your language before entering the first LCD-menu.

During the first 30 seconds after power-on of the sensor or later in the diagnostics menu.

Scroll menu items

Back More   Select **Back** to return to previous menu or display.

Back More Presettings   Select **More** to go to next level:
- basic settings
- advanced settings
- diagnostics

CHANGING A VALUE

Scroll menu up-down

Push to select parameter

AIR:Immunity <2.8m 2
current value is displayed

Scroll values up-down

AIR:Immunity >2.8m 6
more values are displayed

Push to save new value

AIR:Immunity >2.8m 6
new value is displayed

CHANGING A ZIP CODE

See application note on ZIP CODE

Back ZIP code ID #

ZIP code E24 1 56 KG4 01 0 800 02F

ZIP code E24 1 5 01 0 80

ZIP code E24 1 5 01 0 80

ZIP code H24 1 5 01 0 80

ZIP code H24 1 5 01 0 80

··· ZIP code H24 1 56-KG4 01 0 800/02D

ZIP code V

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
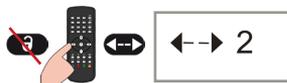
← → 2   Pressing a parameter symbol on your remote control, displays the saved value directly on the LCD-screen. Do not unlock first.

OVERVIEW OF SETTINGS

	0	1	2	3	4	5	6	7	8	9	

BASIC

- Back
- More

IR: WIDTH — Always additionally adjust the arrow position on the sensor with a screwdriver.

IR: OUTPUT

	0	1	2	3	4	5	6	7	8	9	
IR: OUTPUT		NO / NC	NC / NO	NC / NC	NO / NO						NO: normally open / NC: normally closed
TEST	off	on									

- More
- Back

- Back
- More

ADVANCED

	0	1	2	3	4	5	6	7	8	9	
RAD: HOLDTIME	0.5 s	1 s	2 s	3 s	4 s	5 s	6 s	7 s	8 s	9 s	
RAD: OUTPUT		DeEner/NO Energ/NC	Energ/NC DeEner/NO	Energ/NC Energ/NC	DeEner/NC DeEner/NO		DeEner: De-Energized relay Energ: Energized relay	NO: normally open NC: normally closed			
IR: IMMUNITY		normal	enhanced					mode B			

IR: WIDTH — Always additionally adjust the arrow position on the sensor with a screwdriver.

	0	1	2	3	4	5	6	7	8	9	
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			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: FREQ		A	B								
IR: OUTPUT		NO / NC	NC / NO	NC / NC	NO / NO						NO: normally open / NC: normally closed
TEST	off	on									
REDIRECTION	presence	aux + presence		0 presence detection on safety input 1 presence detection on safety + auxilary inputs							
FACTORY RESET								full reset	partial reset		partial: outputs are not reset

- More
- Back

factory value

DIAGNOSTICS

- ZIP CODE — all parameter settings in zipped format (see application note on ZIP CODE)
- ID # — unique ID-number
- CONFIG P/N
- SOFT P/N
- 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 — supply voltage at power connector
- OPERATINGTIME — power duration since first startup
- RESET LOG — delete all saved errors
- PASSWORD — LCD and remote control password (0000= no password)
- ADMIN — enter code to access admin mode

TROUBLESHOOTING

E1 ORANGE LED 1	ORANGE LED flashes 1 x.	The sensor signals an internal fault.	**1** Replace sensor.
E2 ORANGE LED 2	ORANGE LED flashes 2 x.	The power supply is too low or too high.	**1** Check power supply (in the diagnostics menu of the LCD). **2** Check wiring.
E4 ORANGE LED 4	ORANGE LED flashes 4 x.	The sensor receives not enough IR-energy.	**1** Decrease the angle of the IR-curtains. **2** Increase the IR-immunity filter. **3** Deactivate 1 curtain.
E5 ORANGE LED 5	ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	**1** Slightly increase the angle of the IR-curtains. **2** Decrease the IR-immunity filter.
		The sensor is disturbed by external elements.	**1** Eliminate the cause of disturbance (lamps, rain cover, door controller housing properly grounded).
E8 ORANGE LED 8	ORANGE LED flashes 8 x.	IR power emitter is faulty.	**1** Replace sensor.
ORANGE LED on	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.
RED LED flashes	RED LED flashes quickly after an assisted setup.	The sensor sees the door during the assisted setup.	**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 on	RED LED lights up sporadically.	The sensor vibrates.	**1** Check if the sensor is fastened firmly. **2** Check position of cable and cover.
		The sensor sees the door.	**1** Launch an assisted setup and adjust the IR angle.
		The sensor is disturbed by external conditions.	**1** Increase the IR-immunity filter.
LED off	The LED and the LCD-display are off.		**1** Check wiring.
	The reaction of the door does not correspond to the LED-signal.		**1** Check output configuration setting. **2** Check wiring.
	The LCD or remote control does not react.	The sensor is protected by a password.	**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.

- IXIO sensors are intended to be used with pedestrian sliding door systems.
- This device can be expected to comply with Part 15 of the FCC Rules provided it is assembled in exact accordance with the instructions provided with this kit. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.
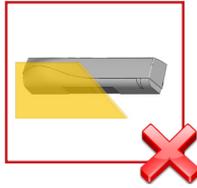
LED-SIGNAL

○ AUX

● Presence detection

LED flashes

LED flashes x times

LED flashes red-green

LED flashes quickly
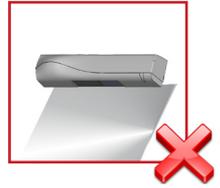
LED is off

INSTALLATION

The sensor should be mounted firmly to avoid extreme vibrations.
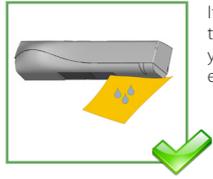
Do not cover the sensor.

Avoid moving objects and light sources in the detection field.

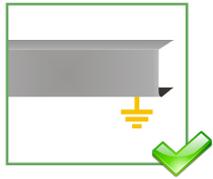Avoid highly reflective objects in the infrared field.

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.
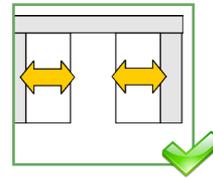
SAFETY

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 proper opration of the installation before leaving the premises.
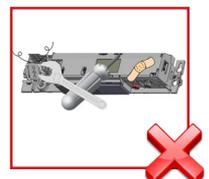
The warranty is invalid if unauthorized repairs are made or attempted by unauthorized personnel.

⚠
- 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% (to be operated from SELV compatible power supplies only)
Power consumption:	< 2.5 W
Mounting height:	6.5 ft to 11.5 ft (local regulations may have an impact on the acceptable mounting height)
Temperature range:	-13°F to +131°F; 0-95% relative humidity, non condensing
Degree of protection:	IP54
Noise:	< 70 dB
Expected lifetime:	20 years
Applicable directives:	R&TTE 1999/5/EC; MD 2006/42/EC; LVD 2006/95/EC; ROHS 2 2011/65/EU

Detection mode:		Presence Typical response time: < 200 ms (max. 500 ms)
Technology:		Active infrared with background analysis Spot: 2 in x 2 in (typ) Number of spots: max. 24 per curtain Number of curtains: 2
Output:	Solid-state-relay (potential and polarity free) Max. contact current: 400 mA Max. contact voltage: 42 V AC/DC	Solid-state-relay (potential and polarity free) Max. contact current: 400 mA Max. contact voltage: 42 V AC/DC Holdtime: 0.3 to 1 s
Test input:		Sensitivity: Low: < 1 V; High: > 10 V (max. 30 V) Response time on test request: typical: < 5 ms
Norm conformity:		EN 12978 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; DIN 18650-1:2010 Chapter 5.7.4 BS 7036-1:1996 Chapter 8.1

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

ANSI / AAADM Compliance

Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner's manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.

OPEN UP NEW HORIZONS

CE

BEA hereby declares that the IXIO-ST is in conformity with the basic requirements and the other relevant provisions of the directives 1999/5/EC, 2006/95/EC and 2006/42/EC.

Notified Body for EC-type inspection: 0044 - TÜV NORD CERT GmbH, Langemarckstr. 20, D-45141 Essen

EC-type examination certificate number: 44 205 12 405836-001

Angleur, October 2014   Pierre Gardier, authorized representative and responsible for technical documentation

The complete declaration of conformity is available on our website: www.bea-pedestrian.be

Only for EC countries: According to the European Guideline 2012/19/EU for Waste Electrical and Electronic Equipment (WEEE)

24/7 Tech Support: 1-800-407-4545 | Customer Service: 1-800-523-2462 | General Tech Questions: Tech_Services@beainc.com | Tech Docs: www.beasensors.com

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