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for a quick overview of settings



# IXIO-ST

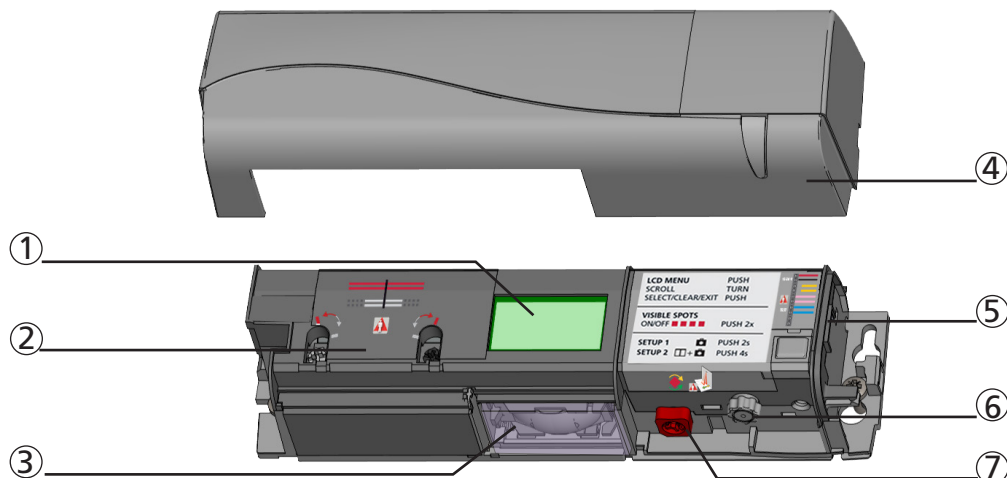
## SAFETY SENSOR FOR AUTOMATIC SLIDING DOORS

(according to EN 16005 and DIN 18650)

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

ENGLISH

### DESCRIPTION



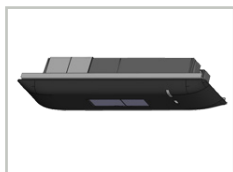
1. LCD
2. IR-curtain width adjustment
3. IR-lenses

4. cover
5. main connector
6. main adjustment knob
7. IR-curtain angle adjustment knob

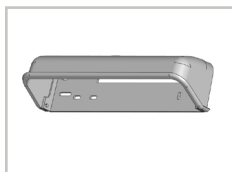
### ACCESSORIES



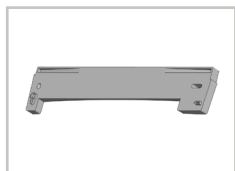
BA: Bracket accessory



CA: Ceiling accessory



RA: Rain accessory



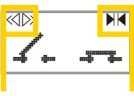
CDA: Curved door accessory



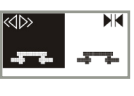
9 V battery

# HOW TO USE THE LCD?

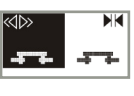
## DISPLAY DURING NORMAL FUNCTIONING




Opening 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 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

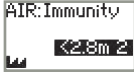
## CHANGING A VALUE



Scroll menu up-down




Push to select parameter

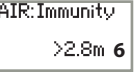


AIR:Immunity  
<2.8m 2

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 coc  
E24 1  
01 0 8




ZIP coc  
E24 1  
01 0 8




ZIP coc  
E24 1  
01 0 8



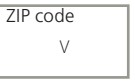
ZIP coc  
E24 1  
01 0 8



ZIP cod  
H24 1  
01 0 8




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

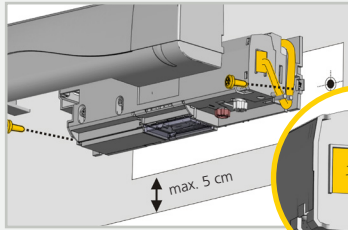


Pressing a parameter symbol on your remote control, displays the saved value directly on the LCD-screen.  
Do not unlock first.

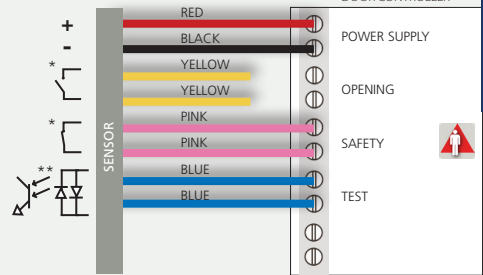


← → 2

## 1 MOUNTING & WIRING

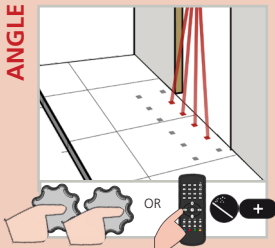


Mount the sensor securely.

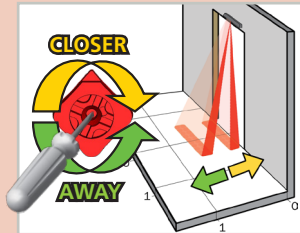


- \* Output status when sensor is operational
- \*\* For compliance with EN 16005 and DIN 18650, connection to door controller test output is required.

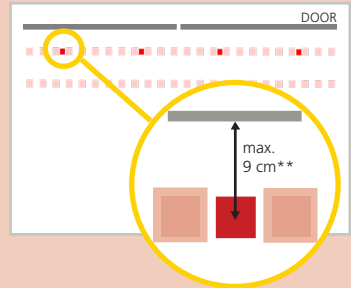
## 2 INFRARED SAFETY FIELD



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

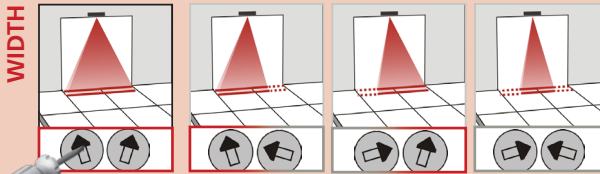


If necessary, adjust the IR-curtain angle (from  $-7^\circ$  to  $4^\circ$ , default  $0^\circ$ ).

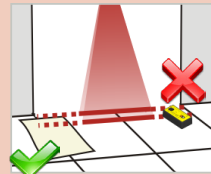


\* Visibility depends on external conditions. When spots are not visible, use the Spotfinder to locate the curtains.

\*\* 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.

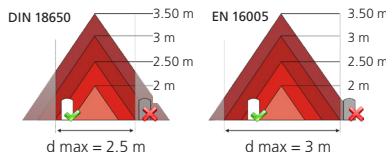


Additional adjustments are possible by LCD

(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):

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

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

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

OR	
	
Presettings Standard	 1
Presettings Critical env.	 2
Presettings Shopping str.	 3

### 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!

## BASIC



## PRESETTINGS

IR: IMMUNITY

IR: FREQUENCY

More  
Back

## ADVANCED



IR: WIDTH



IR: NUMBER

IR: PRESENCE TIME

IR: OUTPUT

## REDIRECTION

SMART DAISY CHAIN\*

## FACTORY RESET

More  
Back

## DIAGNOSTICS



ZIP CODE

ID #

## ERROR LOG

IR: SPOTVIEW

IR: C1 ENERG

IR: C2 ENERG

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

*unique ID-number*

*last 10 errors + day indication*

*view of spot(s) that trigger detection*

signal amplitude received on curtain 1












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.	1 Replace sensor.
E2		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.
E3		ORANGE LED flashes 3 x.	The previous sensor in the daisy chain is faulty	1 Replace previous sensor in the chain
			The SDC setting does not match with the real product position	1 Lock the SDC position setting
E4		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 (values $\geq 2.8$ m). 3 Deactivate 1 curtain.
E5		ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	1 Slightly increase the angle of the IR-curtains.
			The sensor is disturbed by external elements.	1 Eliminate the cause of disturbance (lamps, rain cover, door controller housing properly grounded).
E8		ORANGE LED flashes 8 x.	IR power emitter is faulty.	1 Replace sensor.
		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 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 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 to value 3. 2 Select presetting 2 or 3.
		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.

## LED-SIGNAL



Presence detection



LED flashes



LED flashes  
x times



LED flashes  
red-green

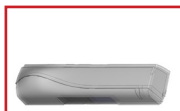


LED flashes  
quickly

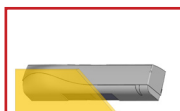


LED is off

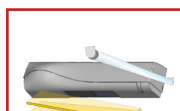
## INSTALLATION



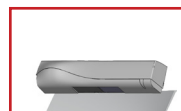
The sensor should be fixed firmly to avoid extreme vibrations.



Do not cover the sensor.

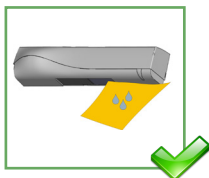


Avoid moving objects and light sources in the detection field.

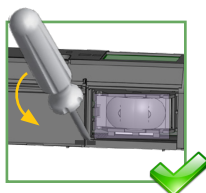


Avoid highly reflective objects in the infrared field.

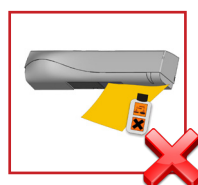
## MAINTENANCE



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

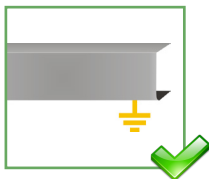


For complete cleaning, remove both windows by inserting a screwdriver into the notches located between the two windows.

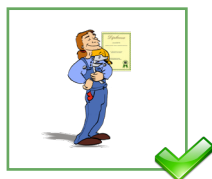


Do not use aggressive products to clean the optical parts.

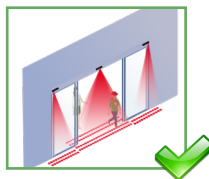
## SAFETY



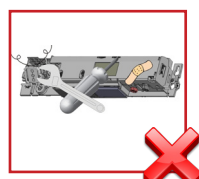
The door control unit and the door cover profile must be correctly earthed.



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 - 24 V AC +/-10% (50 - 60 Hz) ; 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
Output*:	Solid-state-relay (potential and polarity free) Max. contact current: 100 mA Max. contact voltage: 42 V DC / 30 V AC 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
Safety standards :	EN 12978; 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; DIN 18650-1

Specifications are subject to changes without prior notice.  
All values are 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.



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BEA hereby declares that this product is in conformity with European directives :  
2014/30/EU (EMC), 2006/42/EC (Machinery), 2011/65/EU (RoHS).  
EC-type examination certificate from TÜV NORD CERT : 44 205 13089612.  
The complete declaration of conformity is available on our website.

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