



Download the BEA DECODER app
for a quick overview
of settings

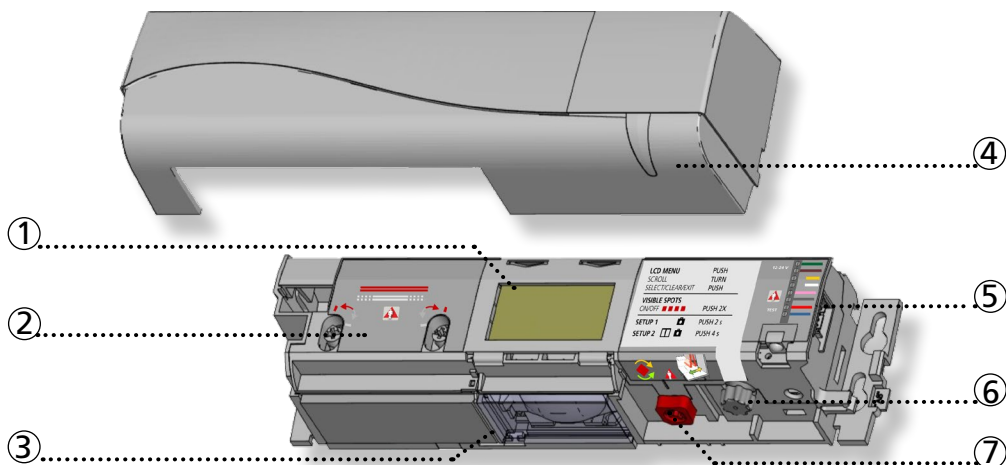


IXIO-SP

Safety sensor
for automatic sliding doors
(according to EN 16005 and DIN 18650)

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

DESCRIPTION

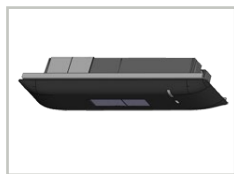


- | | | | |
|----|-----------------------------|----|----------------------------------|
| 1. | LCD | 4. | cover |
| 2. | IR-curtain width adjustment | 5. | main connector |
| 3. | IR-lenses | 6. | main adjustment knob |
| | | 7. | IR-curtain angle adjustment knob |

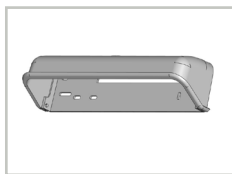
ACCESSORIES



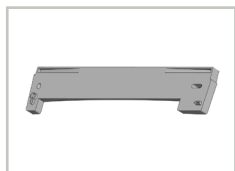
BA: Bracket accessory



CA: Ceiling accessory



RA: Rain accessory



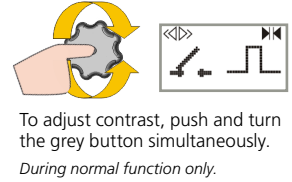
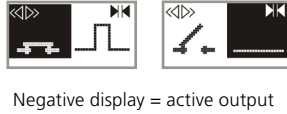
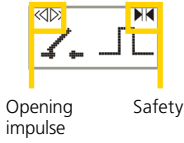
CDA: Curved door accessory



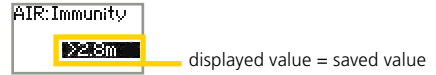
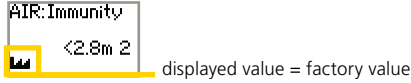
9 V battery

HOW TO USE THE LCD?

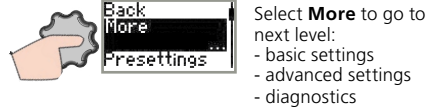
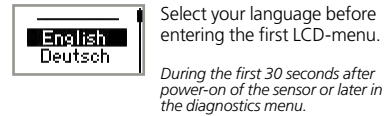
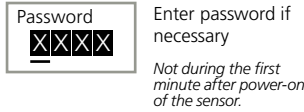
DISPLAY DURING NORMAL FUNCTIONING



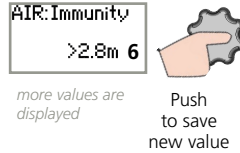
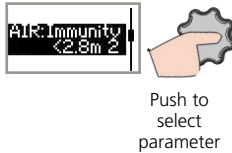
FACTORY VALUE VS. SAVED VALUE



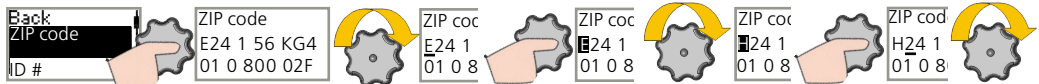
NAVIGATING IN MENUS



CHANGING A VALUE



CHANGING A ZIP CODE

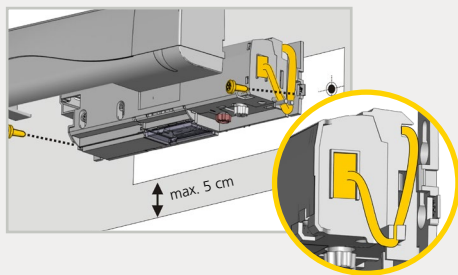


Validate the last digit in order to activate the new ZIP code:
- v = valid ZIP code, values will be changed accordingly
- x = invalid ZIP code, no values will be changed
- v/x = valid ZIP code, but from a different product.
Only available values will be changed.

VALUE CHECK WITH REMOTE CONTROL



1 MOUNTING & WIRING



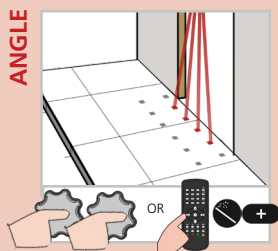
TIP!

Wiring is compatible with the IRIS.

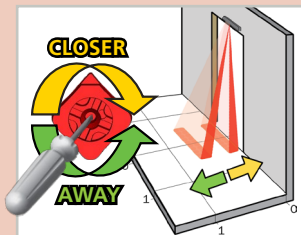
* Depending on OUTPUT CONFIGURATION settings

! Do not invert polarity.

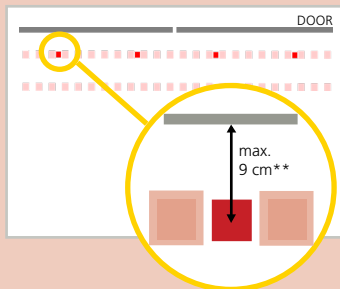
2 INFRARED SAFETY FIELD



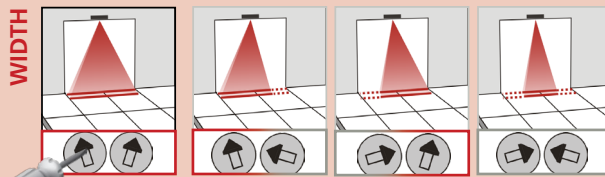
Activate the visible* spots to verify the position of the IR-curtain.



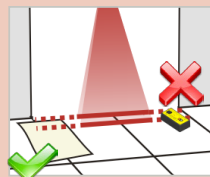
If necessary, adjust the IR-curtain angle (from -7° to 4° , default 0°).



* 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.



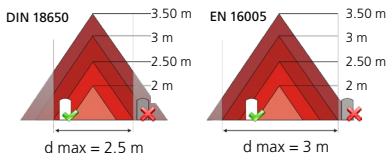
Part of the detection field can be masked to reduce it. The arrow position determines the width of the detection field.



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):



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

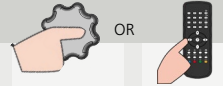
Presettings
Shopping str.



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

IR: IMMUNITY

IR: FREQUENCY

More
Back

ADVANCED



Back
More

IR: WIDTH

IR: NUMBER

IR: PRESENCE TIME

IR: OUTPUT

PULSE INPUT

REDIRECTION

FACTORY 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

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)*

— LANGUAGE

language of LCD-menu




— ADMIN

enter code to access admin mode

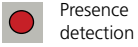
	0	1	2	3	4	5	6	7	8	9
PRESETTINGS		standard	critical env.	shopping street			factory values for IR immunity and IR number			
IR: IMMUNITY		low	normal	high	higher	highest	normal	high	For conformity to EN 16005 or DIN 18650 at a mounting height of 2.8 m or more, use values 6 and 7.	
IR: FREQUENCY		A	B	Sensors mounted close to each other should have a different frequency.						
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
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

* 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.

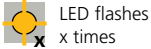
LED-SIGNAL



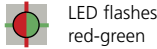
Presence detection



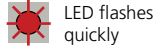
LED flashes



LED flashes x times



LED flashes red-green



LED flashes quickly

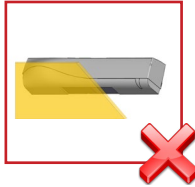


LED is off

INSTALLATION



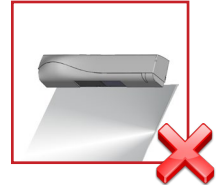
The sensor should be fixed firmly to avoid extreme vibrations.



Do not cover the sensor.

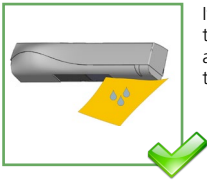


Avoid moving objects and light sources in the detection field.



Avoid highly reflective objects in the infrared field.

MAINTENANCE

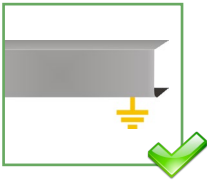


It is recommended to clean the optical parts at least once a year or more if required due to environmental conditions.



Do not use aggressive products to clean the optical parts.

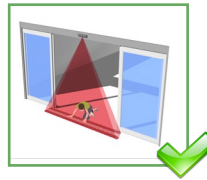
SAFETY



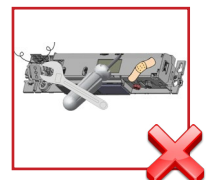
The door control unit and the door cover profile must be correctly earthed.



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

* 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.

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
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 AC/DC

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.



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BEA hereby declares that the IXIO-SP is in conformity with the European directives 2014/30/EU (EMC), 2006/42/EC (Machinery) & 2011/65/EU (RoHS).

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

EC-type examination certificate number: 44 205 13089612

Angleur, february 2021 Estelle GRAAS

The complete declaration of conformity is available on our website.



This product should be disposed of separately from unsorted municipal waste

