Download the BEA DECODER app
for a quick overview of settings
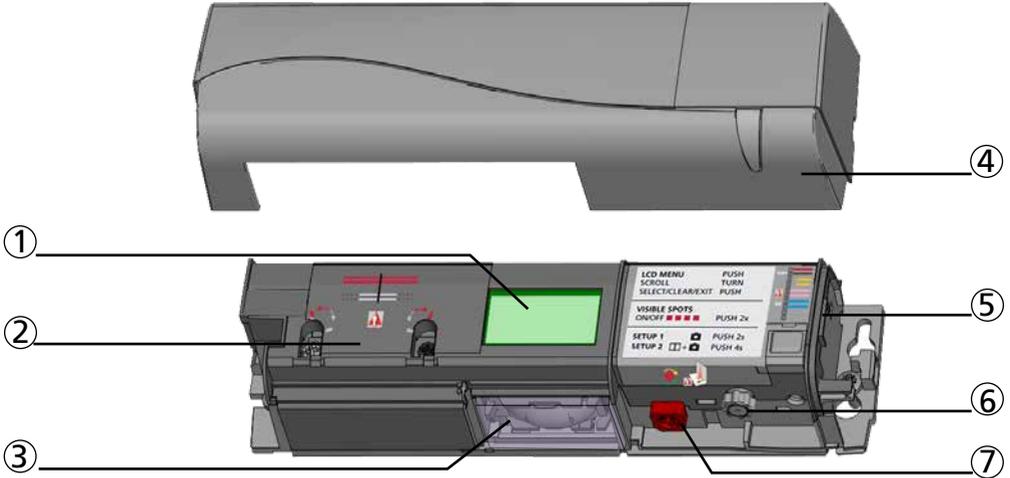
Google play · App Store

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)

DESCRIPTION

LCD MENU — PUSH
SCROLL — TURN
SELECT/CLEAR/EXIT — PUSH
VISIBLE SPOTS
ON/OFF ■ ■ ■ — PUSH 2x
SETUP 1 📷 — PUSH 2s
SETUP 2 ▢+📷 — PUSH 4s

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

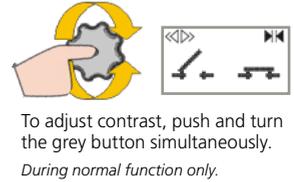BA: Bracket accessory

CA: Ceiling accessory
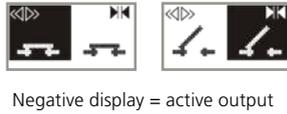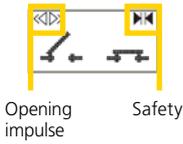

RA: Rain accessory

CDA: Curved door accessory
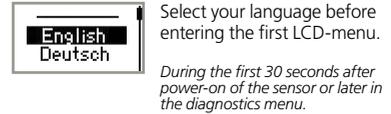

9 V battery

HOW TO USE THE LCD?

DISPLAY DURING NORMAL FUNCTIONING

Opening impulse   Safety

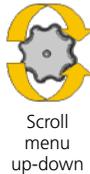Negative display = active output

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 XXXX — 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

AIR:Immunity <2.8m 2

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 cod E24 1 01 0 8

ZIP cod E24 1 01 0 8

ZIP cod H24 1 01 0 8

ZIP cod H24 1 01 0 8
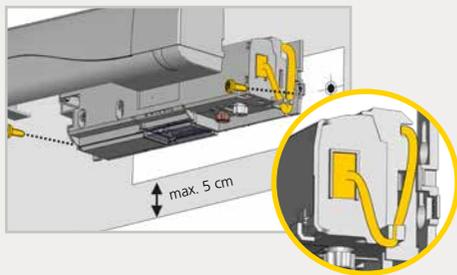
...

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.

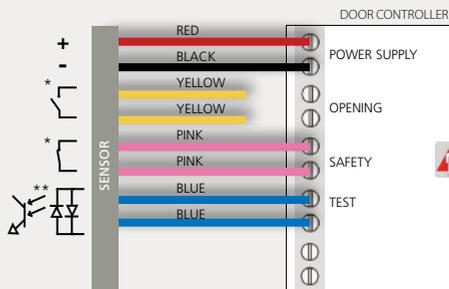## VALUE CHECK WITH REMOTE CONTROL

←→ 2

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

1 MOUNTING & WIRING

DOOR CONTROLLER

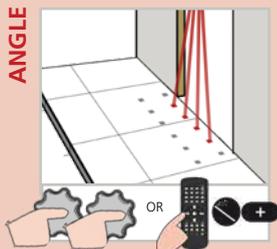|	
RED	
BLACK	POWER SUPPLY
YELLOW	
YELLOW	OPENING
PINK	
PINK	SAFETY
BLUE	
BLUE	TEST

+
-
*
*

SENSOR

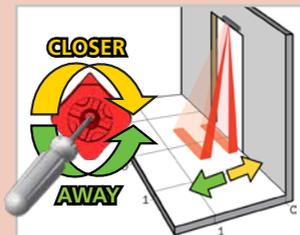**

max. 5 cm

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.
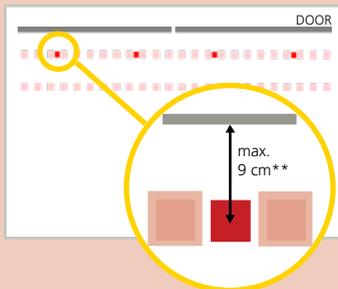
2 INFRARED SAFETY FIELD

ANGLE

OR
– +

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

CLOSER
AWAY
1
1
C

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

DOOR

max. 9 cm**

* 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.

WIDTH

Additional adjustments are possible by LCD or remote control (see p. 5)
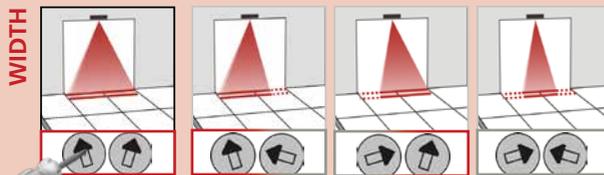
Part of the detection field can be masked to reduce it.
The arrow position determines the width of the detection field.
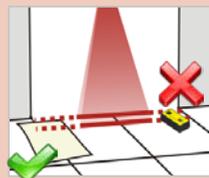
Always verify the actual detection field width with a piece of paper and not the Spotfinder, which detects the whole emitted field.

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

DIN 18650

3.50 m
3 m
2.50 m
2 m

d max = 2.5 m

EN 16005

3.50 m
3 m
2.50 m
2 m

d max = 3 m
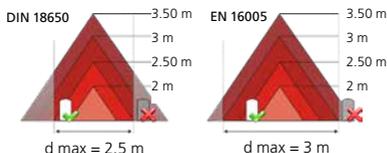
The size of the detection field varies according to the mounting height and the settings of the sensor. The full door width must be covered.

3 SETTINGS

OR

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

STANDARD: standard in- and outdoor installations	Presettings Standard	⬤①
CRITICAL ENVIRONMENT: critical installations due to surroundings or weather	Presettings Critical env	⬤②
SHOPPING STREET: installations in narrow streets with pedestrian traffic	Presettings Shopping str	⬤③

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

OVERVIEW OF SETTINGS

BASIC

0	1	2	3	4	5	6	7	8	9

Back
More

PRESETTINGS

	standard	critical env.	shopping street	factory values for IR immunity and IR number					
				increased immunity					
				increased immunity, 1 curtain					

IR: IMMUNITY

	< 2.8 m					≥ 2,8 m			
	low	normal	high	higher	highest	normal	high		

For conformity to EN 16005 and 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

factory value

⚠️ excludes conformity of the door system according to EN 16005 / DIN 18650. IR Immunity on values 4 or 5 is incompatible with IR presence time on value 0

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

NO NC	NC NO	NC NC	NO NO

NO: normally open
NC: normally closed

REDIRECTION

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

SMART DAISY CHAIN*

off	1/2	2/2	1/3	2/3	3/3	1/2: 1st sensor in chain of 2; 2/2: 2nd sensor in chain of 2
						1/3: 1st in chain of 3; 2/3: 2nd in chain of 3; 3/3: 3rd in chain of 3

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	supply voltage at power connector
OPERATINGTIME	power duration since first startup
RESET LOG	delete all saved errors
PASSWORD	LCD and remotre control password (0000= no password)
LANGUAGE	language of LCD-menu
ADMIN	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 ≥ 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
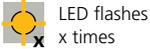
 LED flashes x times
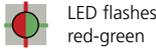
 LED flashes red-green

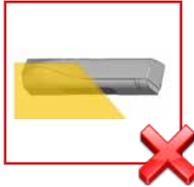 LED flashes quickly

 LED is off

INSTALLATION

The sensor should be fixed firmly to avoid extreme vibrations.

Do not cover the sensor.

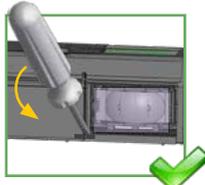Avoid moving objects and light sources in the detection field.

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.
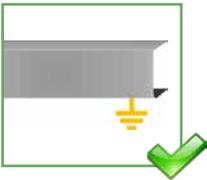

For complete cleaning, remove both windows by inserting a screwdriver into the notches located between the two windows.

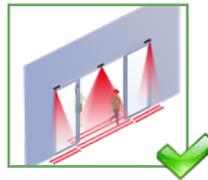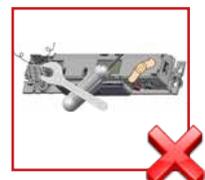Do not use aggressive products to clean the optical parts.

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.

EN 16005   DIN 18650   TÜV NORD

BEA

CE

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.