

JOIN OUR
COMMUNITY!



IXIO-DT1

OPENING & SAFETY SENSOR
FOR AUTOMATIC SLIDING DOORS



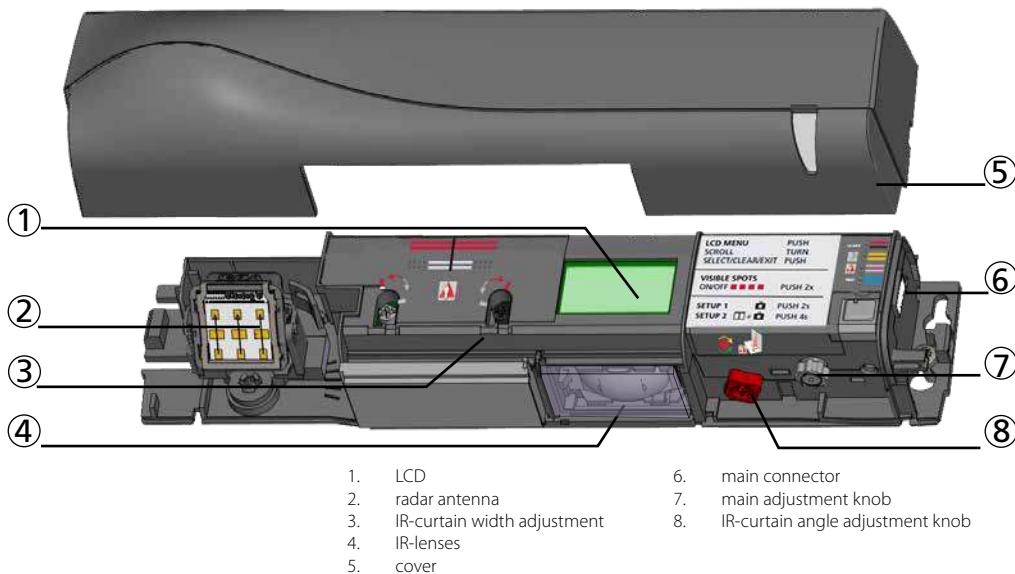
Download the BEA DECODER app
for a quick overview of settings



(according to EN 16005 and DIN 18650)

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

DESCRIPTION



ACCESSORIES



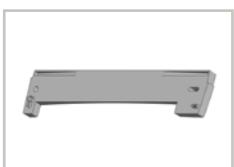
BA: Bracket accessory



CA: Ceiling accessory



RA: Rain accessory



CDA: Curved door accessory



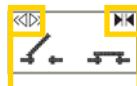
9V battery



Smart Daisy Chain hub

HOW TO USE THE LCD?

DISPLAY DURING NORMAL FUNCTIONING

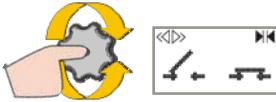


Opening
impulse

Safety



Negative display = active output



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

During normal function only.

FACTORY VALUE VS. SAVED VALUE



<2.8m 2

displayed value = factory value



>2.8m

displayed value = saved value

NAVIGATING IN MENUS



Push to enter the
LCD-menu



Enter password if
necessary

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



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



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



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

CHANGING A VALUE



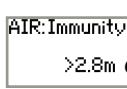
Scroll
menu
up-down



Push to
select
parameter



current value is
displayed

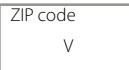
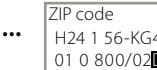


new value is
displayed

CHANGING A ZIP CODE



See application note on ZIP CODE



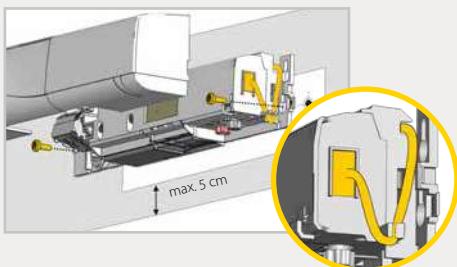
Validate the last digit in order to activate the new ZIP code:
- v = valid ZIP code, values will be changed accordingly
- x = invalid ZIP code, no values will be changed
- v/x = valid ZIP code, but from a different product.
Only available values will be changed.

VALUE CHECK WITH REMOTE CONTROL

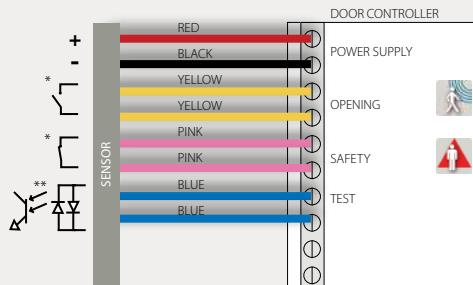


Pressing a parameter symbol on your remote control,
displays the saved value directly on the LCD-screen. Do
not unlock first.

1 MOUNTING & WIRING

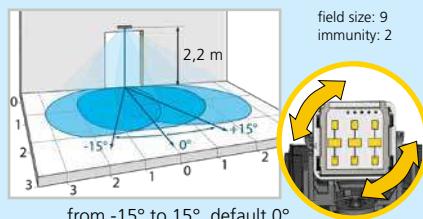
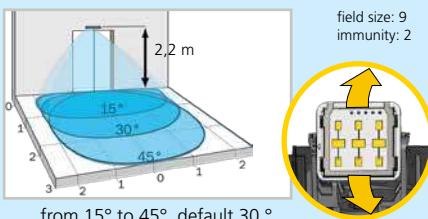


Fixation is compatible with the ACTIV8.
Mount the sensor securely.

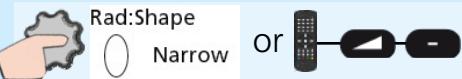
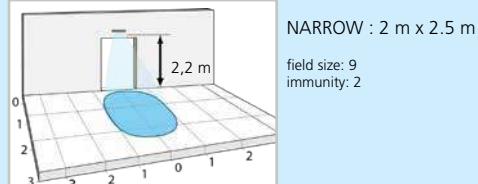
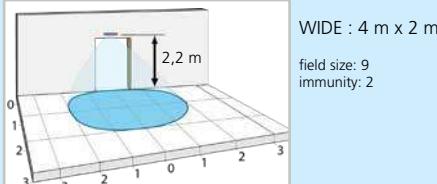


2 RADAR OPENING IMPULSE FIELD

ANGLE

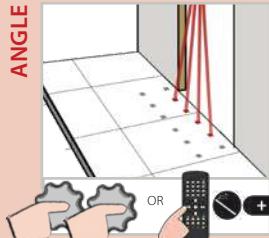


WIDTH

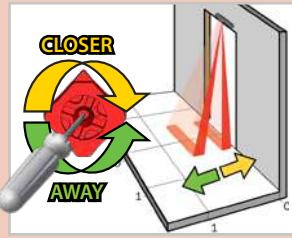


The size of the detection field varies according to the mounting height of the sensor.

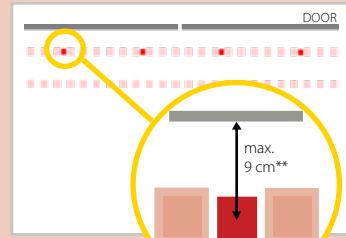
3 INFRARED SAFETY FIELD



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

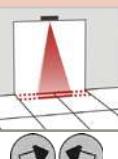
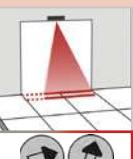
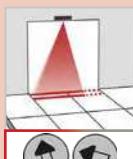
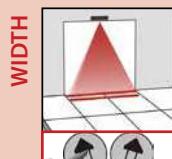


If necessary, adjust the IR-curtain angle (from -7° to 4°, default 0°).



* 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.

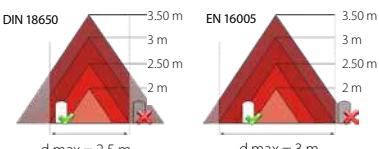


Additional adjustments are possible by LCD or remote control (see p. 5)

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



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.

4 SETTINGS

Choose one of the following presets 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

5 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

	0	1	2	3	4	5	6	7	8	9	+	-	
	standard	critical env.	shopping street										factory values for radar immunity, IR immunity, IR number and redirection
													increased immunities, 1 curtain
													increased immunities, redirection = motion and presence
RAD: FIELDSIZE	small	>	>	>	>	>	>		>	large			
RAD: SHAPE											narrow		
IR: IMMUNITY													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									Sensors mounted close to each other should have a different frequency.
More Back													
ADVANCED													
Back													
More													
RAD: IMMUNITY		low		>	>	>	>	>	>	high			
RAD: DIRECTION	radar off	bi		uni PRM	uni AWAY	bi shop	uni shop	PRM shop					PRM: for persons with reduced mobility AWAY: unidirectional motion away from sensor shop: automatic adaptation of field size (small shops)
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			NC NO	NC NO	NC NO	NO NO	NO: normally open NC: normally closed				Inv.freq.: frequency in detection (2.5 Hz)	Inv.freq. **	
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			NC NO	NC NO	NC NO	NO NO							NO: normally open NC: normally closed
REDIRECTION	motion	motion or presence	motion and presence										opening output is active in case of: 0 motion detection 1 motion or presence detection 2 motion and presence detection
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													
More Back													
DIAGNOSTICS													
ZIP CODE													
ID #													
ERROR LOG													
IR: SPOTVIEW													
IR: C1 ENERG													
IR: C2 ENERG													

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

** Only accessible via LCD

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

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.
		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.
	GREEN LED lights up sporadically.	The sensor is disturbed by rain and/or leaves.	1 Select presetting 2 or 3. 2 Increase radar-immunity filter.
		Ghosting created by door movement.	1 Change radar field angle.
		The sensor vibrates.	1 Check if the sensor and door cover is fastened firmly. 2 Check position of cable and cover.
		The sensor sees the door or other moving objects.	1 Remove the objects if possible. 2 Change radar field size or angle.
	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



Motion detection



Presence detection



LED flashes



LED flashes x times



LED flashes red-green



LED flashes quickly

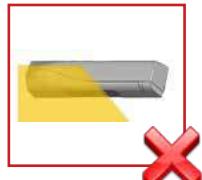


LED is off

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.

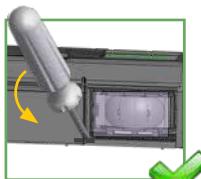


Avoid highly reflective objects in the infrared field.

MAINTENANCE



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

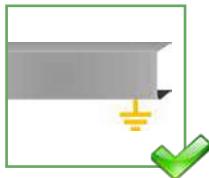


For complete cleaning, remove both windows by inserting a screwdriver into the notches located between the two windows.



Do not use aggressive products to clean the optical parts.

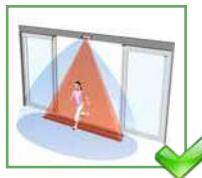
SAFETY



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*:	12V - 24V AC +/-10% (50 - 60 Hz); 12V - 30V 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:	Motion Min. detection speed: 5 cm/s	Presence Typical response time: < 200 ms (max. 500 ms)
Technology:	Microwave doppler radar Transmitter frequency: 24.150 GHz Transmitter radiated power: < 20 dBm EIRP Transmitter power density: < 5 mW/cm ²	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 In inverted frequency mode: pulsed signal in detection (f = 2.5 Hz)	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 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 18650-1 (protective devices) EN 12978

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

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



BEA SA | LIEGE 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 European directives :
2014/35/EU (RED), 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.

