

# IXIO-DP1

## OPENING & SAFETY SENSOR FOR AUTOMATIC SLIDING DOORS

(according to EN 16005 and DIN 18650)

User's Guide for software version 0501 and higher

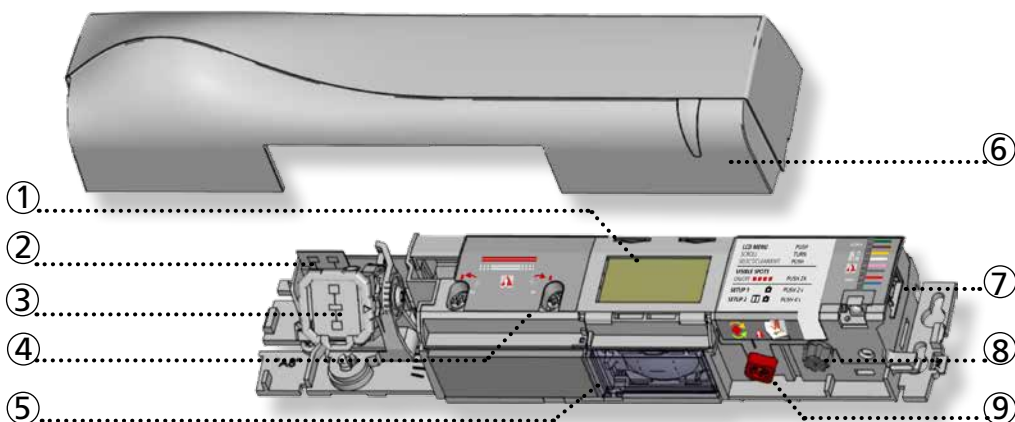
See product label for serial number



Download the BEA DECODER app for a quick overview of settings



### DESCRIPTION



- |    |                              |    |                                  |
|----|------------------------------|----|----------------------------------|
| 1. | LCD                          | 6. | cover                            |
| 2. | radar antenna (narrow field) | 7. | main connector                   |
| 3. | radar antenna (wide field)   | 8. | main adjustment knob             |
| 4. | IR-curtain width adjustment  | 9. | IR-curtain angle adjustment knob |
| 5. | IR-lenses                    |    |                                  |

### ACCESSORIES



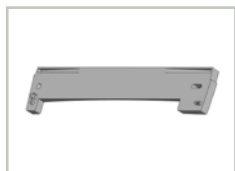
BA: Bracket accessory



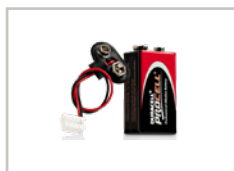
CA: Ceiling accessory



RA: Rain accessory



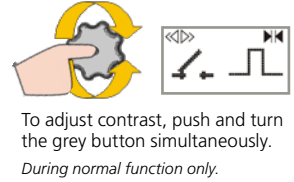
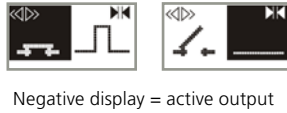
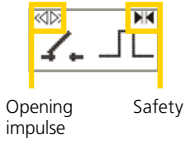
CDA: Curved door accessory



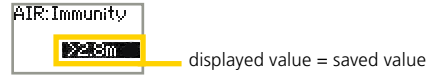
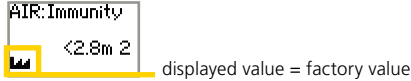
9 V battery

## HOW TO USE THE LCD?

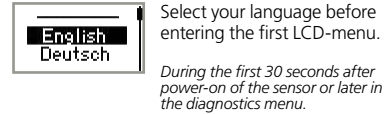
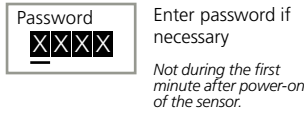
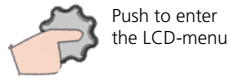
### DISPLAY DURING NORMAL FUNCTIONING



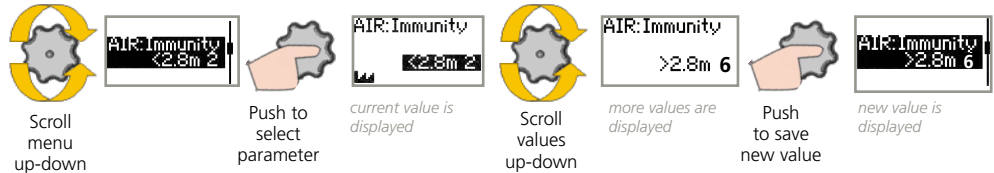
### FACTORY VALUE VS. SAVED VALUE



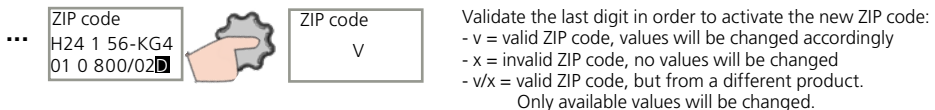
### NAVIGATING IN MENUS



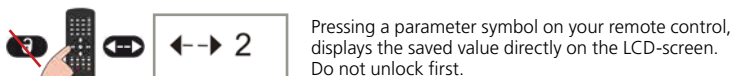
### CHANGING A VALUE



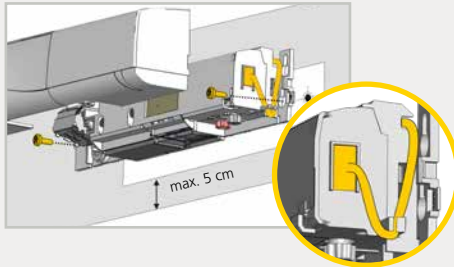
### CHANGING A ZIP CODE



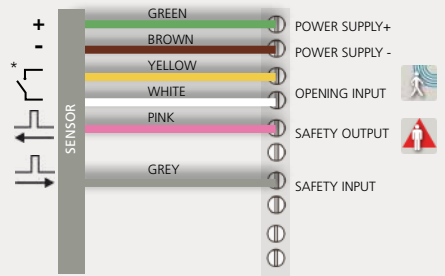
### VALUE CHECK WITH REMOTE CONTROL



## 1 MOUNTING & WIRING



Fixation is compatible with the ACTIV8.

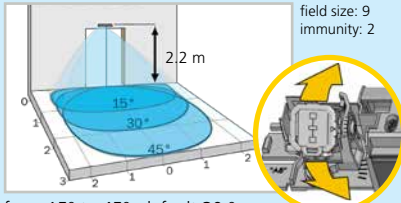


\* Depending on OUTPUT CONFIGURATION settings

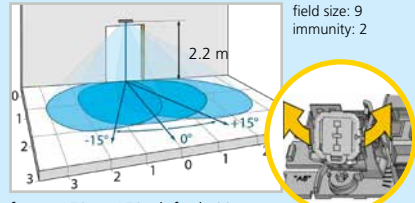
**⚠ Do not invert polarity.**

## 2 RADAR OPENING IMPULSE FIELD

ANGLE

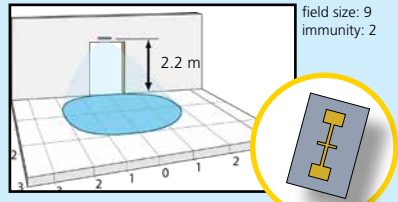


from 15° to 45°, default 30°

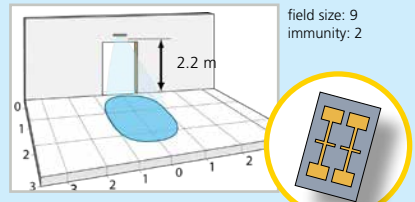


from -15° to 15°, default 0°

WIDTH



4 m x 2 m (wide)

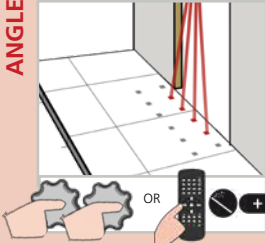


2 m x 2.5 m (narrow)

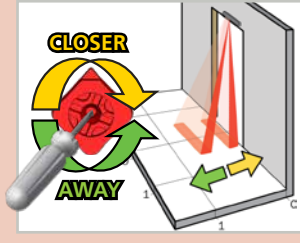
The size of the detection field varies according to the mounting height of the sensor.

### 3 INFRARED SAFETY FIELD

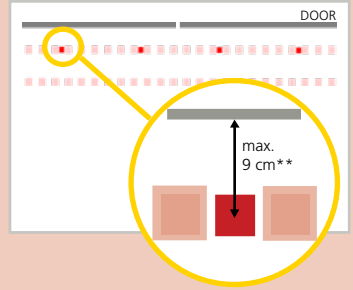
ANGLE



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

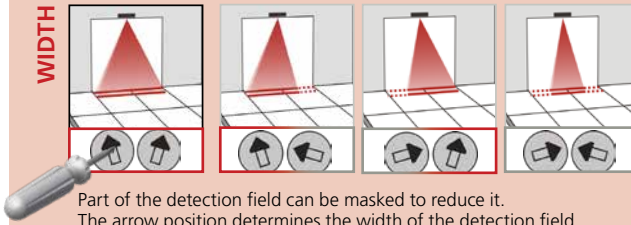


If necessary, adjust the IR-curtain angle (from  $-7^\circ$  to  $4^\circ$ , default  $0^\circ$ ).

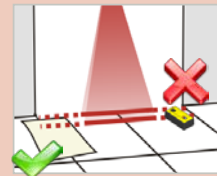


\* Visibility depends on external conditions. When spots are not visible, use the Spotfinder to locate the curtains.  
 \*\* The distance between the inner curtain of the inside door sensor and the inner curtain of the outside door sensor should always be smaller than 20 cm. The distance to the door leaf depends therefore on the thickness of the door leaf.

WIDTH



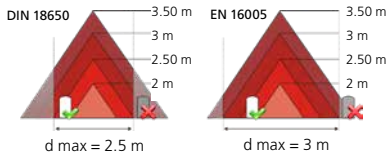
Part of the detection field can be masked to reduce it. The arrow position determines the width of the detection field.



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.

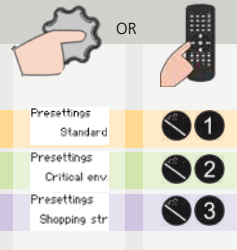
### 4 SETTINGS

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



### 5 SETUP

**STEP OUT OF THE INFRARED FIELD!**

#### SETUP 1 (QUICK)

reference picture



#### SETUP 2 (ASSISTED)












test of full door cycle + reference picture



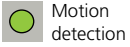
TEST THE GOOD FUNCTIONING OF THE INSTALLATION BEFORE LEAVING THE PREMISES!



## TROUBLESHOOTING

E1	 ORANGE LED flashes 1 x.	The sensor signals an internal fault.	<ol style="list-style-type: none"> <li>1 Replace sensor.</li> </ol>
E2	 ORANGE LED flashes 2 x.	The power supply is too low or too high.	<ol style="list-style-type: none"> <li>1 Check power supply (in the diagnostics menu of the LCD).</li> <li>2 Check wiring.</li> </ol>
E4	 ORANGE LED flashes 4 x.	The sensor receives not enough IR-energy.	<ol style="list-style-type: none"> <li>1 Decrease the angle of the IR-curtains.</li> <li>2 Increase the IR-immunity filter (values &gt;2.8 m).</li> <li>3 Deactivate 1 curtain.</li> </ol>
E5	 ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	<ol style="list-style-type: none"> <li>1 Slightly increase the angle of the IR-curtains.</li> </ol>
E8	 ORANGE LED flashes 8 x.	IR power emitter is faulty.	<ol style="list-style-type: none"> <li>1 Replace sensor.</li> </ol>
	 ORANGE LED is on.	The sensor encounters a memory problem.	<ol style="list-style-type: none"> <li>1 Cut and restore power supply.</li> <li>2 If orange LED lights up again, replace sensor.</li> </ol>
	 RED LED flashes quickly after an assisted setup.	The sensor sees the door during the assisted setup.	<ol style="list-style-type: none"> <li>1 Move the IR-curtains away from the door.</li> <li>2 Install the sensor as close to the door as possible. If needed, use a bracket accessory.</li> <li>3 Launch a new assisted setup.</li> </ol>
	 RED LED lights up sporadically.	The sensor vibrates.	<ol style="list-style-type: none"> <li>1 Check if the sensor is fastened firmly.</li> <li>2 Check position of cable and cover.</li> </ol>
		The sensor sees the door.	<ol style="list-style-type: none"> <li>1 Launch an assisted setup and adjust the IR angle.</li> </ol>
		The sensor is disturbed by external conditions.	<ol style="list-style-type: none"> <li>1 Increase the IR-immunity filter to value 3.</li> <li>2 Select presetting 2 or 3.</li> </ol>
	 GREEN LED lights up sporadically.	The sensor is disturbed by rain and/or leaves.	<ol style="list-style-type: none"> <li>1 Select presetting 2 or 3.</li> <li>2 Increase radar-immunity filter.</li> </ol>
		Ghosting created by door movement.	<ol style="list-style-type: none"> <li>1 Change radar field angle.</li> </ol>
		The sensor vibrates.	<ol style="list-style-type: none"> <li>1 Check if the sensor and door cover is fastened firmly.</li> <li>2 Check position of cable and cover.</li> </ol>
		The sensor sees the door or other moving objects.	<ol style="list-style-type: none"> <li>1 Remove the objects if possible.</li> <li>2 Change radar field size or angle.</li> </ol>
	 The LED and the LCD-display are off.		<ol style="list-style-type: none"> <li>1 Check wiring.</li> </ol>
	The reaction of the door does not correspond to the LED-signal.		<ol style="list-style-type: none"> <li>1 Check output configuration setting.</li> <li>2 Check wiring.</li> </ol>
	The LCD or remote control does not react.	The sensor is protected by a password.	<ol style="list-style-type: none"> <li>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.</li> </ol>

## LED-SIGNAL



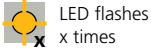
Motion detection



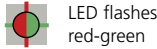
Presence detection



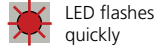
LED flashes



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

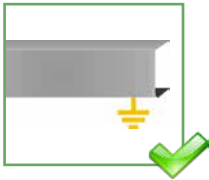


It is recommended to clean the optical parts at least once a year or more if required due to environmental conditions.



Do not use aggressive products to clean the optical parts.

## SAFETY



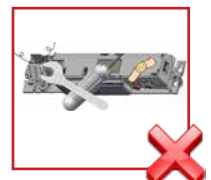
The door control unit and the door cover profile must be correctly earthed.



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
Expected lifetime:	20 years



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 <sup>2</sup>	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 AC/DC  In inverted frequency mode: pulsed signal in detection (f = 2.5 Hz)	-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
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.



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BEA hereby declares that the IXIO-DP1 is in conformity with the European directives

2014/53/EU (RED), 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

