

# IXIO-DT1

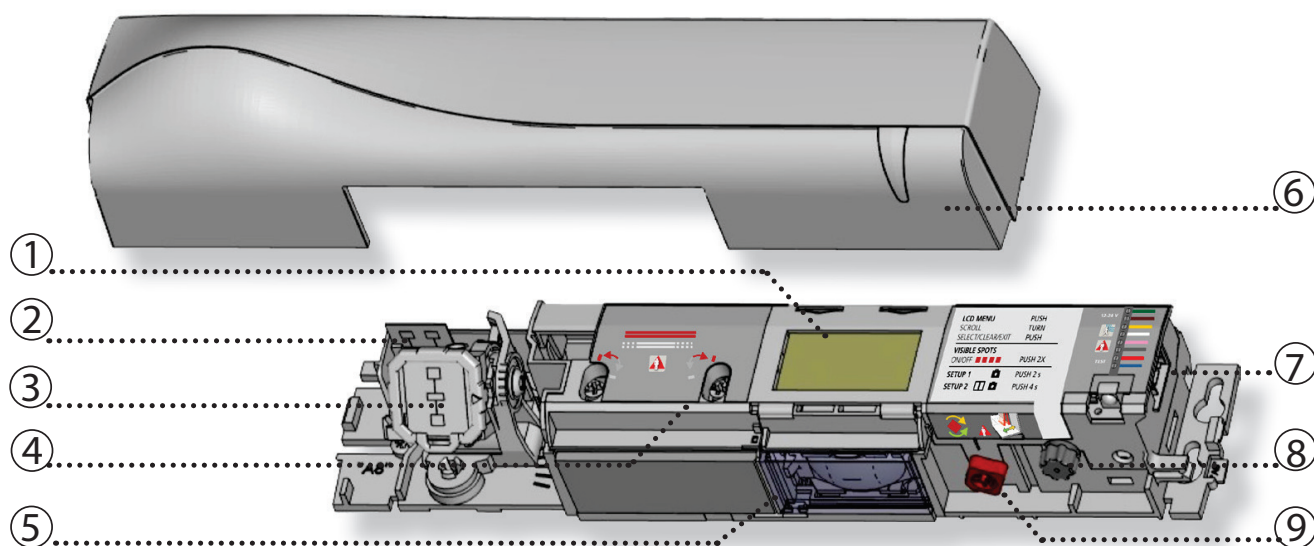
Activation & safety sensor for automatic sliding doors



Download the BEA DECODER app for a quick overview of settings



## DESCRIPTION

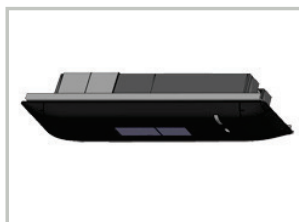


- |                                 |                                      |
|---------------------------------|--------------------------------------|
| 1. LCD                          | 6. cover                             |
| 2. radar antenna (narrow field) | 7. main connector                    |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

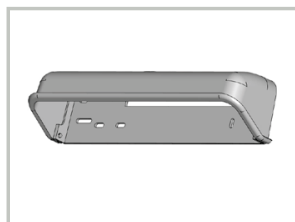
## ACCESSORIES



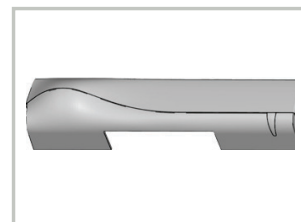
10IMB: Bracket accessory



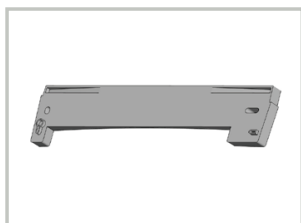
10ICA: Ceiling accessory



10IRA: Rain accessory



35.1286: black cover  
35.1302: white cover  
35.1303: silver cover

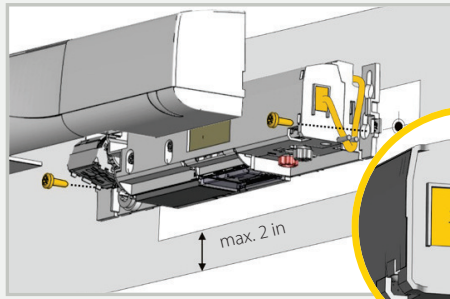


10CDA: Curved door accessory



10XIOSPACER: Spacer

## 1 MOUNTING & WIRING



12-24 V AC, 50/60 Hz  
12-30 V DC  
Max 2.5 W



Mounting is compatible with the WIZARD.



\* Output status when sensor is operational

Sensor connectivity (power and relays) must utilize only the supplied harness.

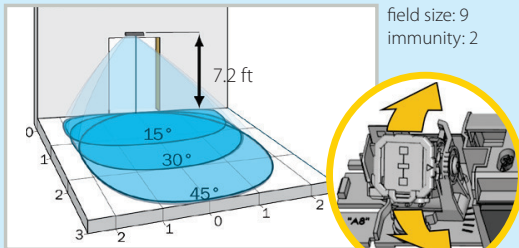
Sensor power must be supplied from a Class 2 supply source limited to 15 W.

Sensor is intended to be monitored for proper operation by the door operator or system.

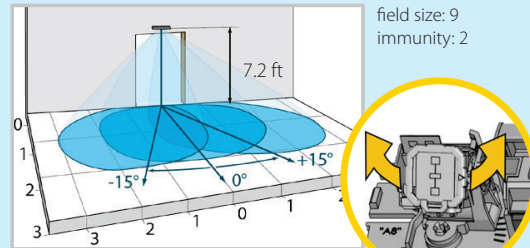
Harness shall be routed separated from any Mains or non-Class 2 voltage cable for correct operation or shall be rated for the Mains voltage, and suitable protection and routing means shall be used according to National and Local Codes to prevent damage to the harness.

## 2 RADAR OPENING IMPULSE FIELD

ANGLE

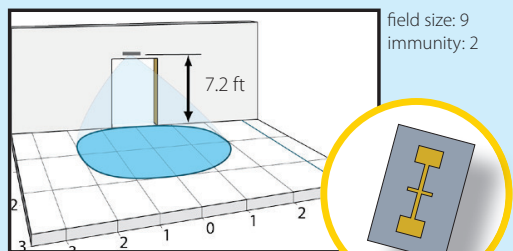


from 15° to 45°, default 30°

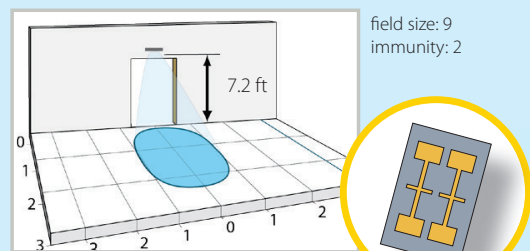


from -15° to 15°, default 0°

WIDTH



13 ft x 6.5 (wide)

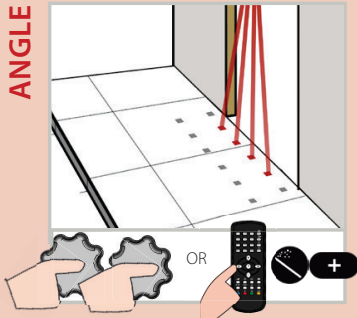


6.5 x 8 ft (narrow)

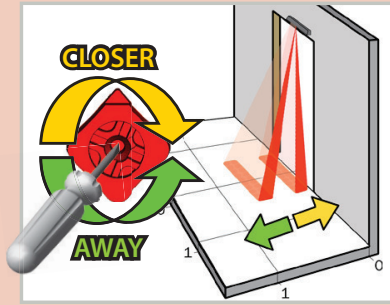
The size of the detection field varies according to the mounting height of the sensor.

### 3 INFRARED SAFETY FIELD

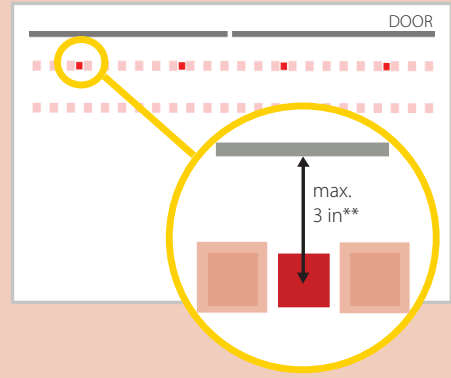
ANGLE



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

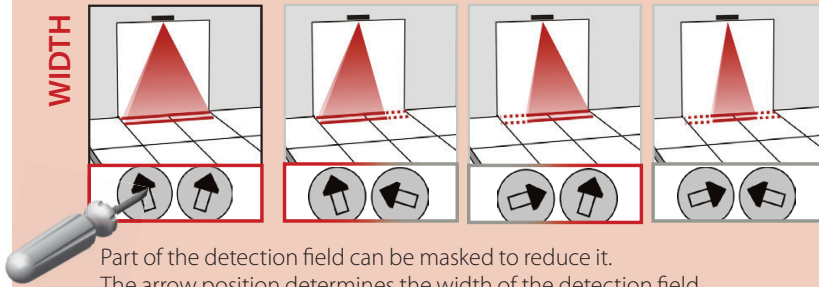


If necessary, adjust the AIR-curtain angle (from -7° to 4°, default 0°).

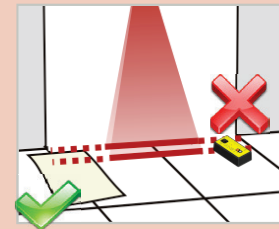


\* Visibility depends on external conditions. When spots are not visible, use the Spotfinder to locate the curtains.  
 \*\* The distance between the inner curtain of the inside door sensor and the inner curtain of the outside door sensor should always be smaller than 8 in.

WIDTH



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.

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

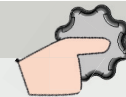
Mounting height	Detection width
6.5 ft	6.5 ft
7.2 ft	7.2 ft
8.2 ft	8.2 ft
9.8 ft	d max
11.5 ft	d max

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 SETUP



STEP OUT OF THE INFRARED FIELD!



OR



#### SETUP 1 (QUICK)

reference picture



+



#### SETUP 2 (ASSISTED)

test of full door cycle + reference picture



+



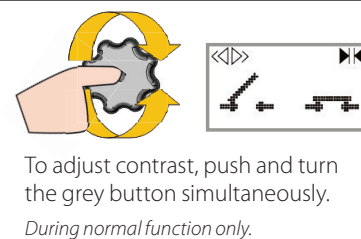
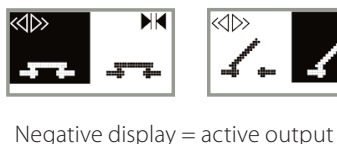
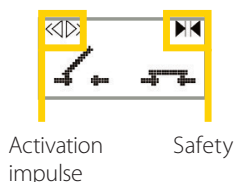
+



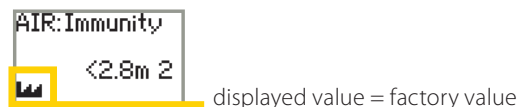
TEST THE PROPER OPERATION OF THE INSTALLATION BEFORE LEAVING THE PREMISES!

## HOW TO USE THE LCD?

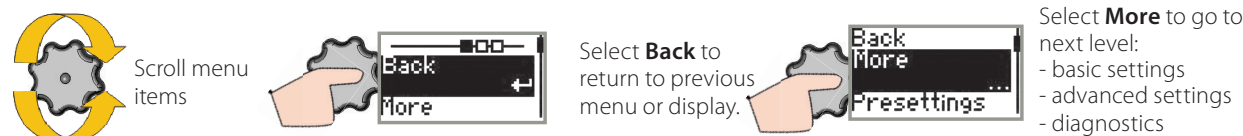
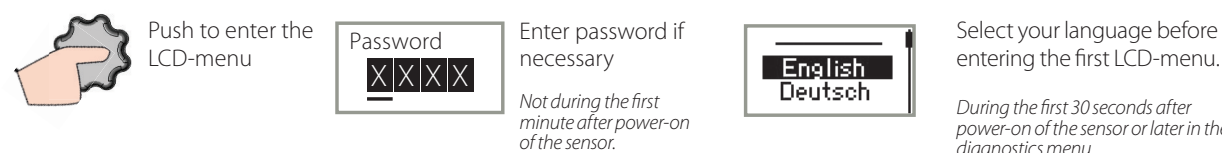
### DISPLAY DURING NORMAL FUNCTIONING



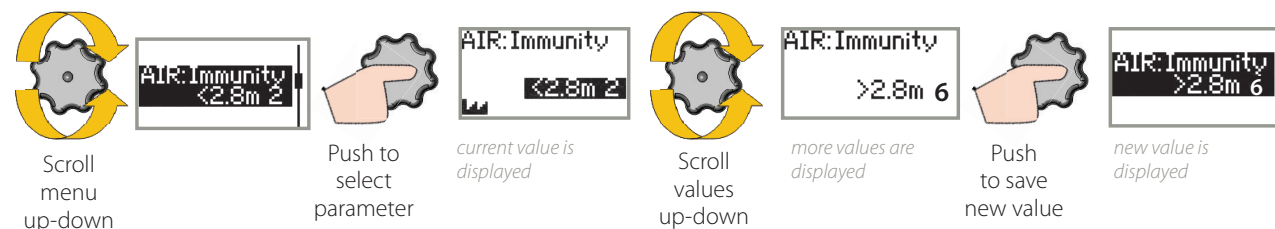
### FACTORY VALUE VS. SAVED VALUE



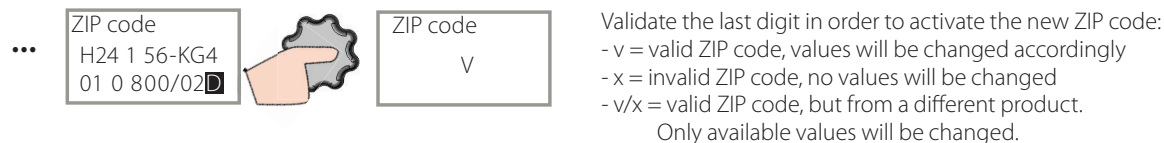
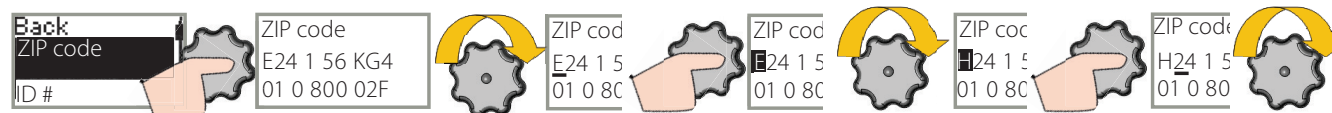
### NAVIGATING IN MENUS



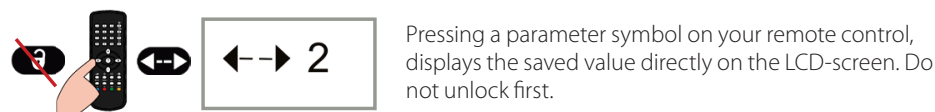
### CHANGING A VALUE



### CHANGING A ZIP CODE














### VALUE CHECK WITH REMOTE CONTROL



# OVERVIEW OF SETTINGS

	0	1	2	3	4	5	6	7	8	9		
<b>BASIC</b>												
Back More												
RAD: FIELD SIZE	small	>	>	>	>	>	>	>	>	large		
AIR: WIDTH											Always additionally adjust the arrow position on the sensor with a screwdriver.	
AIR: OUTPUT		DeEner/NO Energ/NC	Energ/NC DeEner/NO	Energ/NC Energ/NC	DeEner/NC DeEner/NC				DeEner: De-Energized relay Energ: Energized relay	NO: normally open NC: normally closed		
TEST	off	on										
More Back												
Back More												
<b>ADVANCED</b>												
RAD: FIELD SIZE	small	>	>	>	>	>	>	>	>	large		
RAD: IMMUNITY		low	>	>	>	>	>	>	>	high		
RAD: DIRECTION	off	bi	uni	uni MTF	uni away					MTF: motion tracking feature		
RAD: HOLD TIME	0.5 s	1 s	2 s	3 s	4 s	5 s	6 s	7 s	8 s	9 s		
RAD: REENTRY	small	>	>	>	>	>	>	>	>	large		
RAD: OUTPUT		DeEner/NO Energ/NC	Energ/NC DeEner/NO	Energ/NC Energ/NC	DeEner/NC DeEner/NC				DeEner: De-Energized relay Energ: Energized relay	NO: normally open NC: normally closed		
AIR: IMMUNITY		normal	enhanced						mode B			
AIR: WIDTH											Always additionally adjust the arrow position on the sensor with a screwdriver.	
AIR: NUMBER		1	2									
AIR: PRESENCE TIME			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	
AIR: FREQ		A	B									
AIR: OUTPUT		DeEner/NO Energ/NC	Energ/NC DeEner/NO	Energ/NC Energ/NC	DeEner/NC DeEner/NC				DeEner: De-Energized relay Energ: Energized relay	NO: normally open NC: normally closed		
TEST	off	on										
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	
FACTORY RESET									full reset	partial reset	partial: outputs are not reset	
More Back												
Back More												
<b>DIAGNOSTICS</b>												
ZIP CODE	all parameter settings in zipped format (see application note on ZIP CODE)											
ID #	unique ID-number											
CONFIG P/N												
SOFT P/N												
ERROR LOG	last 10 errors + day indication											
AIR: SPOTVIEW	view of spot(s) that trigger detection											
		factory value										
		<ul style="list-style-type: none"> <li>AIR: C1 ENERG signal amplitude received on curtain 1</li> <li>AIR: C2 ENERG signal amplitude received on curtain 2</li> <li>POWERSUPPLY supply voltage at power connector</li> <li>OPERATINGTIME power duration since first startup</li> <li>RESET LOG delete all saved errors</li> <li>PASSWORD LCD and remote control password (0000= no password)</li> <li>ADMIN enter code to access admin mode</li> </ul>										

## 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 AIR-energy.	<ol style="list-style-type: none"> <li>1 Decrease the angle of the AIR-curtains.</li> <li>2 Increase the AIR-immunity filter.</li> <li>3 Deactivate 1 curtain.</li> </ol>
E5		ORANGE LED flashes 5 x.	The sensor receives too much AIR-energy.	<ol style="list-style-type: none"> <li>1 Slightly increase the angle of the AIR-curtains.</li> <li>2 Decrease the AIR-immunity filter.</li> </ol>
			The sensor is disturbed by external elements.	<ol style="list-style-type: none"> <li>1 Eliminate the cause of disturbance (lamps, rain cover, door controller housing properly grounded).</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.
		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 AIR-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 AIR-immunity filter.</li> </ol>
		GREEN LED lights up sporadically.	The sensor is disturbed by rain and/or leaves.	<ol style="list-style-type: none"> <li>1 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>

- IXIO sensors are intended to be used with pedestrian sliding door systems.
- This device can be expected to comply with Part 15 of the FCC Rules provided it is assembled in exact accordance with the instructions provided with this kit. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.



## LED-SIGNAL



Motion detection



Presence detection



LED flashes



LED flashes x times



LED flashes red-green



LED flashes quickly

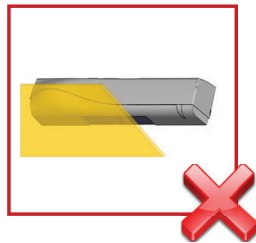


LED is off

## INSTALLATION



The sensor should be mounted firmly to avoid extreme vibrations.



Do not cover the sensor.

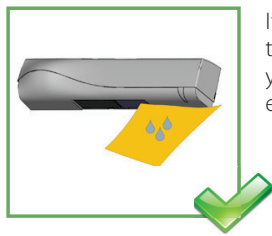


Avoid moving objects and light sources in the detection field.



Avoid highly reflective objects in the infrared field.

## MAINTENANCE

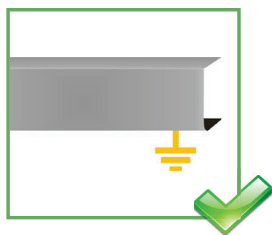


It is recommended to clean the optical parts at least once a year or more if required due to environmental conditions.

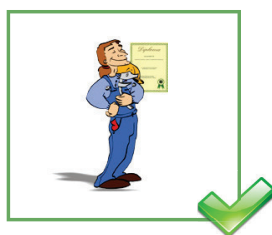


Do not use aggressive products to clean the optical parts.

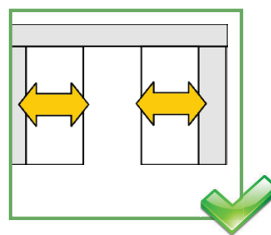
## SAFETY



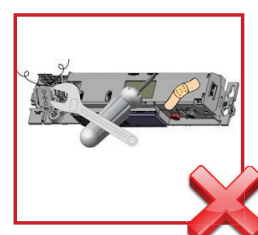
The door control unit and the door cover profile must be correctly grounded.



Only trained and qualified personnel may install and setup the sensor.



Always test the proper operation 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

Supply voltage:	12 V - 24 V AC +/-10% ; 12 V - 30 V DC +/-10% (to be operated from SELV compatible power supplies only)
Power consumption:	< 2.5 W
Mounting height:	6.5 ft to 11.5 ft (local regulations may have an impact on the acceptable mounting height)
Temperature range:	-13°F to +131°F; 0-95% relative humidity, non condensing
Degree of protection:	IP54
Noise:	< 70 dB
Applicable directives:	R&TTE 1999/5/EC; MD 2006/42/EC; LVD 2006/95/EC; ROHS 2 2011/65/EU

PLEASE KEEP FOR FURTHER USE - DESIGNED FOR COLOUR PRINTING			
	Detection mode:	Motion Min. detection speed: 2 in/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: 2 in x 2 in (typ) Number of spots: max. 24 per curtain Number of curtains: 2
	Output:	Electro-mechanical-relay (potential and polarity free) Max. contact current: 1 A Max. contact voltage: 30 V DC Adjustable Holdtime: 0.5 to 9 s	Solid-state-relay (potential and polarity free) Max. contact current: 400 mA Max. contact voltage: 42 V AC/DC 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
	Norm conformity:		EN 12978 EN ISO 13849-1:2008 PL «C» CAT. 2 (under the condition that the door control system monitors the sensor at least once per door cycle) IEC 61496-1:2012 ESPE Type 2 EN 16005:2012 Chapter 4.6.8; DIN 18650-1:2010 Chapter 5.7.4 BS 7036-1:1996 Chapter 8.1

Specifications are subject to changes without prior notice.  
All values measured in specific conditions.

### ANSI / AAADM Compliance



Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner's manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.



OPEN UP NEW HORIZONS



BEA hereby declares that the IXIO-DT1 is in conformity with the basic requirements and the other relevant provisions of the directives 1999/5/EC, 2006/95/EC and 2006/42/EC.

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

EC-type examination certificate number: 44 205 12 405836-001

Angleur, October 2014

Pierre Gardier, authorized representative and responsible for technical documentation

The complete declaration of conformity is available on our website: [www.bea-pedestrian.be](http://www.bea-pedestrian.be)

Only for EC countries: According to the European Guideline 2012/19/EU for Waste Electrical and Electronic Equipment (WEEE)

