**IXIO-DP3**

Opening & safety sensor for automatic sliding doors  
(according to EN 16005 and DIN 18650, including emergency exits)

User’s Guide for product version 0400 and higher  
See product label for serial number

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**DESCRIPTION**

1. LCD
2. radar antenna (narrow field)
3. radar antenna (wide field)
4. IR-curtain width adjustment
5. IR-lenses

6. cover
7. main connector
8. main adjustment knob
9. IR-curtain angle adjustment knob

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**ACCESSORIES**

- BA: Bracket accessory
- CA: Ceiling accessory
- RA: Rain accessory
- CDA: Curved door accessory
- Retrofit interface
- Door bell + interface
- 9 V battery

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Download the BEA DECODER app for a quick overview of settings
HOW TO USE THE LCD?

DISPLAY DURING NORMAL FUNCTIONING

<table>
<thead>
<tr>
<th>Opening impulse</th>
<th>Safety</th>
<th>Negative display = active output</th>
<th>To adjust contrast, push and turn the grey button simultaneously. During normal function only.</th>
</tr>
</thead>
</table>

FACTORY VALUE VS. SAVED VALUE

<table>
<thead>
<tr>
<th>AIR: Immunity</th>
<th>AIR: Immunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.8m 2</td>
<td>&gt;2.8m 6</td>
</tr>
</tbody>
</table>

displayed value = factory value

displayed value = saved value

NAVIGATING IN MENUS

Push to enter the LCD-menu

Enter password if necessary

Select your language before entering the first LCD-menu.

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

Select Back to return to previous menu or display.

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

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.

12-24 V DC

POWER SUPPLY +

POWER SUPPLY -

OPENING INPUT

SAFETY OUTPUT

SAFETY INPUT

* Output status when sensor is operational

** Current source output for emergency exits

Do not invert polarity!

2 RADAR OUTPUT CONFIGURATION

RELAY OUTPUT

NO: normally open

NC: normally closed

FREQUENCY OUTPUT

for emergency exits

CURRENT SOURCE OUTPUT

for emergency exits

3 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. In emergency exits the full door width must be covered.
4 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.

Always verify the actual detection field width with a piece of paper and not the Spotfinder, which detects the whole emitted field.

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.

5 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

6 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

**RAD: IMMUNITY**
- Low
- Normal
- High
- Higher
- Highest
- Normal
- High

**RAD: DIRECTION**
- Radar Off
- Bi
- Uni
- PRM
- Away
- Auto
- Uni
- Auto
- PRM

**RAD: FIELD SIZE**
- Small
- >
- >
- >
- >
- >
- >
- Large

**RAD: OUTPUT**
- NO
- NC
- NC
- NO
- Current
- Freq
- NO: Normally Open
- NC: Normally Closed
- Freq: Frequency Output

**IR: IMMUNITY**
- Low
- Normal
- High
- Normal
- High

**IR: FREQUENCY**
- A
- B

**IR: WIDTH**
- 0.5 s
- 1 s
- 2 s
- 3 s
- 4 s
- 5 s
- 6 s
- 7 s
- 8 s
- 9 s

**IR: NUMBER**
- Service Mode
- 1
- 2

**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**
- Motion
- Presence
- Motion and Presence

**FACTORY RESET**
- Full Reset
- Partial Reset
- Partial: Outputs are not Reset

**DOOR BELL**
- Off
- 0.05 s
- 0.10 s
- 0.25 s
- 0.50 s
- 0.75 s
- 1 s
- 1.5 s
- 2 s
- 5 s

* Setting in combination with an accessory (see p. 1).

For more information see user's guide of accessory.

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#### DIAGNOSTICS

**POWER SUPPLY**
- Supply voltage at power connector

**OPERATING TIME**
- 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

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#### ID 
- Unique ID-number

#### ERROR LOG
- Last 10 errors + day indication

#### ZIP CODE
- All parameter settings in zipped format
  - (see application note on ZIP CODE)

#### LANGUAGE
- Shopping street
- Standard critical env.
- Street
- Service mode

#### FACTORY SETTING
- Increased immunities: 1 curtain
- Increased immunities, redirection = motion and presence

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* Excludes conformity of the door system according to EN 16005 / DIN 18650 / BS 7036.
  - IR Immunity on values 4 or 5 is incompatible with IR presence time on value 0
  - Not allowed when the sensor is used in emergency exits.

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For conformity to EN 16005 or DIN 18650 at a mounting height of 2.8 or more, use values 6 and 7.

For conformity to BS 7036 at a mounting height of 2.2 m or more, use values 6 and 7.

Sensors mounted close to each other should have a different frequency.

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Increased immunities, redirection = motion and presence

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For conformity to BS 7036 at a mounting height of 2.2 m or more, use values 6 and 7.

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Always additionally adjust the arrow position on the sensor with a screwdriver.

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For more information see user's guide of accessory.
<table>
<thead>
<tr>
<th>Troubleshooting Issue</th>
<th>LED Pattern</th>
<th>Description</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORANGE LED flashes 1 x.</td>
<td>E1 1 1</td>
<td>The sensor signals an internal fault.</td>
<td>1 Replace sensor.</td>
</tr>
<tr>
<td>ORANGE LED flashes 2 x.</td>
<td>E2 2 2</td>
<td>The power supply is too low or too high.</td>
<td>1 Check power supply (in the diagnostics menu of the LCD). 2 Check wiring.</td>
</tr>
<tr>
<td>ORANGE LED flashes 4 x.</td>
<td>E4 4 4</td>
<td>The sensor receives not enough IR-energy.</td>
<td>1 Decrease the angle of the IR-curtains. 2 Increase the IR-immunity filter (values &gt;2.8 m). 3 Deactivate 1 curtain.</td>
</tr>
<tr>
<td>ORANGE LED flashes 5 x.</td>
<td>E5 5 5</td>
<td>The sensor receives too much IR-energy.</td>
<td>1 Slightly increase the angle of the IR-curtains.</td>
</tr>
<tr>
<td>ORANGE LED flashes 6 x.</td>
<td>E6 6 6</td>
<td>Faulty radar sensor output</td>
<td>1 Replace sensor.</td>
</tr>
<tr>
<td>ORANGE LED flashes 7 x.</td>
<td>E7 7 7</td>
<td>The internal test of the radar is disturbed.</td>
<td>1 Change radar field angle or antenna. 2 Launch a quick setup. 3 If orange LED flashes again, replace sensor.</td>
</tr>
<tr>
<td>ORANGE LED flashes 8 x.</td>
<td>E8 8 8</td>
<td>IR power emitter is faulty.</td>
<td>1 Replace sensor.</td>
</tr>
<tr>
<td>ORANGE LED flashes 9 x.</td>
<td>E9 9 9</td>
<td>Internal reference of the radar is faulty.</td>
<td>1 Replace sensor.</td>
</tr>
<tr>
<td>ORANGE LED is on.</td>
<td>E10 10 10</td>
<td>The sensor encounters a memory problem.</td>
<td>1 Cut and restore power supply. 2 If orange LED lights up again, replace sensor.</td>
</tr>
<tr>
<td>RED LED flashes quickly after an assisted setup.</td>
<td>E11 11 11</td>
<td>The sensor sees the door during the assisted setup.</td>
<td>1 Move the IR-curtains up again, replace sensor. 2 Install the sensor as close to the door as possible. If needed, use a bracket accessory. 3 Launch a new assisted setup.</td>
</tr>
<tr>
<td>RED LED lights up sporadically.</td>
<td>E12 12 12</td>
<td>The sensor vibrates.</td>
<td>1 Check if the sensor is fastened firmly. 2 Check position of cable and cover.</td>
</tr>
<tr>
<td>RED LED lights up sporadically.</td>
<td>E13 13 13</td>
<td>The sensor sees the door.</td>
<td>1 Launch an assisted setup and adjust the IR angle.</td>
</tr>
<tr>
<td>GREEN LED lights up sporadically.</td>
<td>E14 14 14</td>
<td>The sensor is disturbed by external conditions.</td>
<td>1 Increase the IR-immunity filter to value 3. 2 Select presetting 2 or 3.</td>
</tr>
<tr>
<td>The LED and the LCD-display are off.</td>
<td>E15 15 15</td>
<td>The sensor is disturbed by rain and/or leaves.</td>
<td>1 Select presetting 2 or 3. 2 Increase radar-immunity filter.</td>
</tr>
<tr>
<td>Ghosting created by door movement.</td>
<td>E16 16 16</td>
<td>Change radar field angle.</td>
<td></td>
</tr>
<tr>
<td>The sensor vibrates.</td>
<td></td>
<td></td>
<td>1 Check if the sensor and door cover is fastened firmly. 2 Check position of cable and cover.</td>
</tr>
<tr>
<td>The sensor sees the door or other moving objects.</td>
<td></td>
<td></td>
<td>1 Remove the objects if possible. 2 Change radar field size or angle.</td>
</tr>
<tr>
<td>The LED or remote control does not react.</td>
<td></td>
<td></td>
<td>1 Check wiring.</td>
</tr>
<tr>
<td>The reaction of the door does not correspond to the LED-signal.</td>
<td></td>
<td></td>
<td>1 Check output configuration setting. 2 Check wiring.</td>
</tr>
<tr>
<td>The sensor is protected by a password.</td>
<td></td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
**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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>12 V - 30 V DC +/-10% (to be operated from SELV compatible power supplies only)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt; 2.5 W</td>
</tr>
<tr>
<td>Mounting height</td>
<td>2 m to 3.5 m (according to the applicable laws and regulations)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-25°C to +55°C; 0-95% relative humidity, non condensing</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP54</td>
</tr>
<tr>
<td>Noise</td>
<td>&lt; 70 dB</td>
</tr>
<tr>
<td>Expected lifetime</td>
<td>20 years</td>
</tr>
<tr>
<td>Applicable directives</td>
<td>RED 2014/53/EU; MD 2006/42/EC; ROHS 2 2011/65/EU</td>
</tr>
</tbody>
</table>

#### Detection mode:
- **Motion**
  - Min. detection speed: 5 cm/s

#### Technology:
- **Microwave doppler radar**
  - Transmitter frequency: 24.150 GHz
  - Transmitter radiated power: < 20 dBm EIRP
  - Transmitter power density: < 5 mW/cm²

#### Output:
- **Solid-state-relay (potential and polarity free)**
  - Max. contact current: 100 mA
  - Max. contact voltage: 42 V AC/DC
  - in switching mode: NO/NC
  - in frequency mode: pulsed signal (f= 100 Hz +/- 10%)

#### 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

#### Norm conformity:
- **EN 12978**
- **EN ISO 13849-1 PL «d» CAT. 2**
- **EN 16005 Chapter 4.6.8**
- **DIN 18650-1 Chapter 5.7.4; AutSchR**
- **BS 7036-1:1996 Chapter 7.3.2**
  - (only applicable for relay output in frequency mode and current source output)

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

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BEA hereby declares that the IXIO-DP3 is in conformity with the basic requirements and the other relevant provisions of the directives 2014/53/EU, 2006/42/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 13089612

Angleur, September 2017    Pierre Gardier, authorized representative and responsible for technical documentation

The complete declaration of conformity is available on our website

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