



EN

BEA Pedestrian

Sensor solutions for revolving doors

Introduction

BEA s.a. has been active in the area of detection since 1965 and was one of the first company to launch a Doppler-effect radar sensor on the market that was specially adapted to automatic doors.

Since then, several solutions have been developed.

Our current range includes solutions specially for **revolving doors**.

These products are divided into 2 categories:

- Solutions for **opening** doors using microwave technology.
- **Safety** solutions for doors using active infrared or laser technology.

Complete your catalogue

Further information and instruction sheets are available upon request:

- Sensor solutions for sliding doors
- Sensor solutions for swinging doors



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Summary

OPENING SENSORS

EAGLE ONE **P4**

SEAGLE ONE **P6**

MAGIC SWITCH **P8**

SAFETY SENSORS

4SAFE **P10**

1SAFE **P12**

LZR-P220 **P14**

Icons



Microwave technology



Infrared technology



Dual technology
(microwave & infrared)



Laser technology



Sliding door



Swinging door



Revolving door



Recommended mounting
height



BEA remote control
for adjusting the settings

Sensors solutions for revolving doors



EAGLE ONE



SEAGLE ONE



MAGIC SWITCH



LZR-P220



1SAFE



4SAFE

MAGIC SWITCH

P8

SEAGLE ONE

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EAGLE ONE

P4



EAGLE ONE



UNIDIRECTIONAL OPENING SENSOR

Thanks to the BEA planar antenna and its unidirectional detection mode, the **EAGLE ONE** offers an high level of stability and reliability. It is the solution for all types of automatic doors, irrespective of the surroundings.

FEATURES

Improvement of the energy efficiency of buildings thanks to the unidirectional radar, which detects approaching movements and filters out movements moving away: the door closes earlier and reduces heat losses.

Appealing design for swing doors thanks to positioning the sensor above the pivot.

Possibility to mount the sensor in the ground.

High level of stability and reliability of the detection area thanks to the planar antenna developed by BEA.



MICROWAVE
TECHNOLOGY



Swinging door



Revolving door



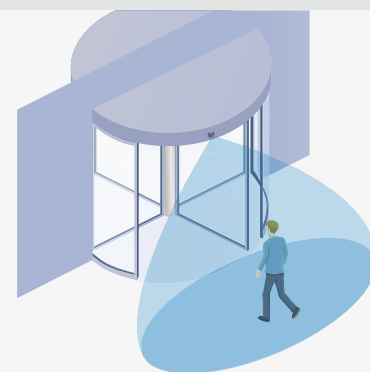
Remote control



2 m 20



APPLICATIONS



Opening of revolving doors



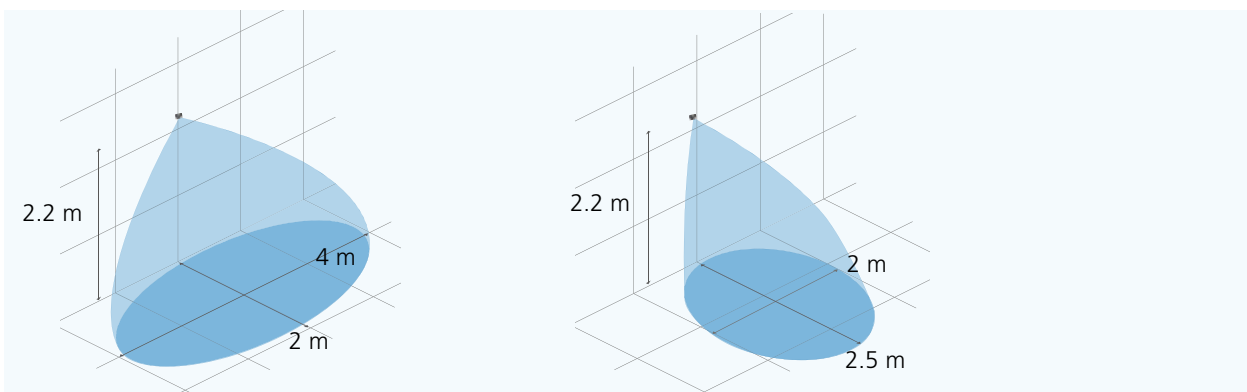
TECHNICAL SPECIFICATIONS

Technology	MOTION Microwave doppler radar
Mounting height	from 1.8 m to 4 m
Dimensions	120 mm (L) × 80 mm (H) × 50 mm (W)
Norms	R&TTE 1999/5/CE EMC 2004/108/CE

EASE OF INSTALLATION

- Adjustment of basic functions with push buttons.
- Fine tuning with the universal BEA coded infrared remote control.

DETECTION RANGE



Radar area (wide) 4 m × 2 m @ 2.2 m

Radar area (narrow) 2 m × 2.5 m @ 2.2 m

SEAGLE ONE



UNIDIRECTIONAL OPENING SENSOR

The **SEAGLE ONE** is a microwave sensor controlled by microprocessor.

Digital motion sensor : the most economical all-round solution for opening all types of automatic doors (sliding, swinging, revolving, curved...). The sensor adapts to every application without any additional accessories.

FEATURES

Planar antenna in K-band ensuring a high precision of the detection area dimensions.

Very wide detection area for greater user comfort and very good side detection due to the oval sensing field shape

As an option, 6 element-antenna for narrow sensing field

3D antenna adjustment : the Seagle One antenna can be oriented along two axis :

Frontal adjustments from 0° to 90° : this means you can place the sensor back on the ceiling without any further accessory

Lateral adjustments from 30° left to 30° right : the sensor can be placed on the side of the door with the option of centering the detection area in front of the door



MICROWAVE
TECHNOLOGY



Swinging door



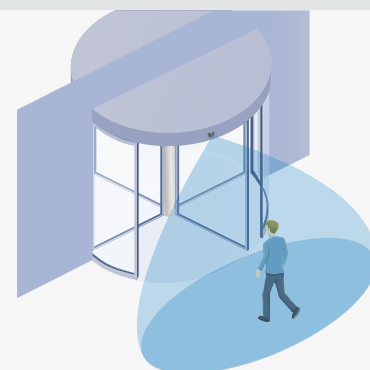
Revolving door



2 m 20



APPLICATIONS



Opening of revolving doors



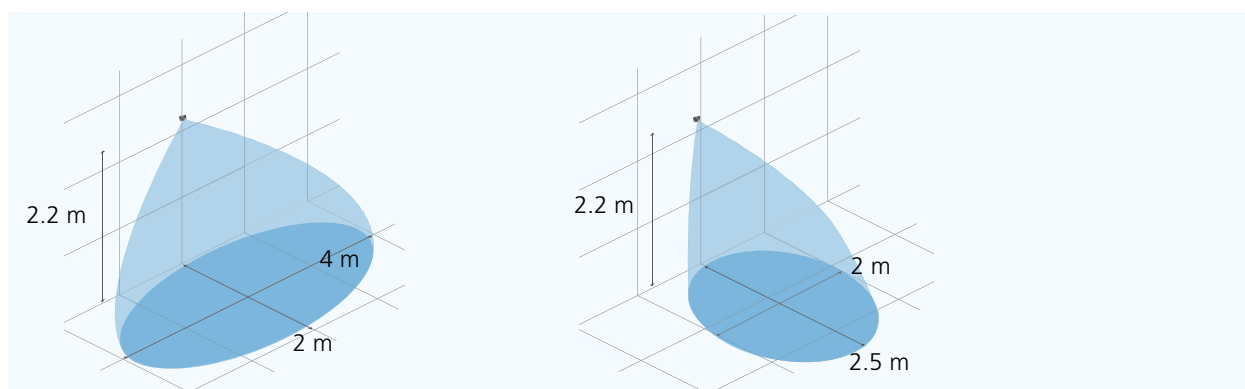
TECHNICAL SPECIFICATIONS

Technology	MOTION Microwave doppler radar
Mounting height	from 1.8 m to 3 m
Dimensions	120 mm (L) × 80 mm (H) × 50 mm (W)
Norms	R&TTE: 1999/5/EC EMC: 2004/108/EC

EASE OF INSTALLATION

- Adjustment of the sensing field with potentiometers.

DETECTION RANGE



Radar area (wide) 4 m × 2 m @ 2.2 m

Radar area (narrow) 2 m × 2.5 m @ 2.2 m

MAGIC SWITCH



CONTACTLESS INTENTIONAL SENSOR

The **MAGIC SWITCH** is an intentional contactless microwave sensor. Its main use are hygienic applications where the lack of contact with the sensor is required and also comfort reasons in hospital environments, hotels, restaurants, in the retail and pharmaceutical industries and in logistics.

FEATURES

Concealed installation and homogeneous detection thanks to the radar technology.

Detection area adjustable between 10 and 50 cm.

Possibility of keeping the door open with the switch mode.

Easy opening solution for low energy doors used by people with disabilities.



MICROWAVE
TECHNOLOGY



Sliding door



Swinging door



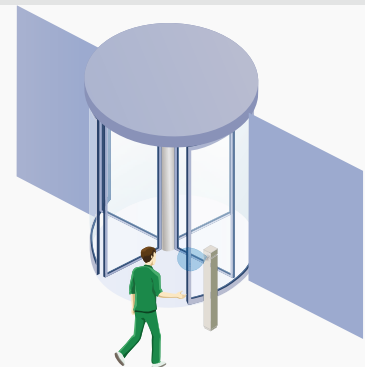
Revolving door



1 m 20



APPLICATIONS



Hygienic opening



TECHNICAL SPECIFICATIONS

Technology

MOTION

Microwave doppler radar

Dimensions

Without front cover :

40 mm (L) × 50 mm (H) × 32 mm (W)

With front cover :

84 mm (L) × 84 mm (H) × 45 mm (W)

Norms

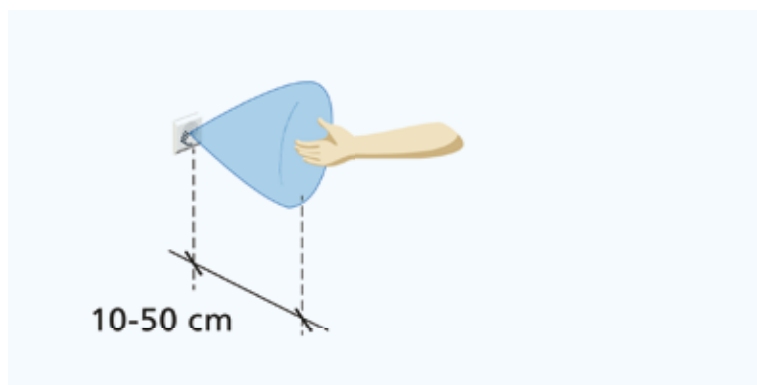
R&TTE 1999/5/EC

EMC: 2004/108/EC

EASE OF INSTALLATION

- Adjustment of detection area with potentiometer.
- Switch or pulse mode with DIP-switches.
- Visible housing in option.

DETECTION RANGE



Detection area of 10 cm to 50 cm

4SAFE

EN 16005

DIN 18650



SAFETY SENSOR

The **4SAFE** is a failsafe active infrared sensor which operates by distance measuring.

On board of swing and revolving door leaves, it brings safety to the users by avoiding contacts with the doors in motion.

The three-dimensional area of the 4SAFE makes it particularly suitable for protecting people with disabilities.

FEATURES

High user safety thanks to a detection area of 40 cm in front of the leaf at 2 m high with 4 groups of 2 active infrared spots.

Easy mounting with daisy-chain up to 6 modules, to cover the whole door width.

Easy wiring for swing doors thanks to the special design of the 4SAFE : every module has two selectable outputs for safety at opening or closing, with just one cable.

Adaptation to all floor types, even the most contrasted one (stainless steel plate, grids, water puddles, snow-covered ground...).

Easier logistics: each module recognises its status automatically and selects it in the daisy-chain.



INFRARED
TECHNOLOGY



Swinging door



Revolving door



2 m 20



APPLICATIONS



Safety of revolving doors



TECHNICAL SPECIFICATIONS

Technology PRESENCE
Active Infrared with background suppression

Mounting height 1.1 m to 3.5 m

Dimensions Sensor module : 300 mm
L* × 43.5 mm (H) × 47.5 mm (W)

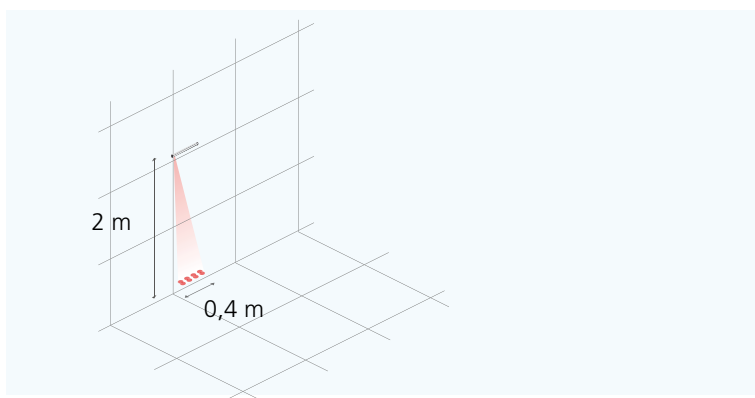
Norms EMC 2004/108/EC; MD 2006/42/EC
DIN 18650-1:2012 ch. 5.7.4;
BS 7036-2:1996*;
EN 16005:2012 ch. 4.6.8;
EN 12978:2003 + A1:2009;
EN 61508:2010; IEC 61496-2:2006; BGR 232;
EN ISO 13849-1:2008 Performance Level «c» CAT.
2 (under the condition that the door control system monitors the
sensor at least once per door cycle)
* max. mounting height for BS 7036-conformity: 3.25 m

* Length of profile according to packaging (see options)

EASE OF INSTALLATION

- Pressing the push button once is enough to adjust the sensor for the usual installation heights.
- Fine tuning with 4 DIP-switches.

DETECTION RANGE



Infrared dectection area 400 mm × 70 mm @ 2 m

1SAFE



INFRARED SAFETY SENSOR

The **1SAFE** is an active infrared sensor operating with background suppression (triangulation). The 1 SAFE sends a narrow infrared beam (35 × 70 mm at a height of 2.20 m).

The 1SAFE is suitable for all applications where accurate and narrow detection fields are required. It either opens, protects or monitors.

FEATURES

The 1 SAFE provides safety in the following applications:

Sliding door during the opening cycle (risk of crushing).

Curved sliding or swing door during the closing cycle (risk of pinching or crushing).

It safeguards the potential impact point or "pinch zone" of revolving doors (on unmonitored doors).

The 1 SAFE, as an alternative to pushbuttons, opens an automatic door when:

You need a very small detection field (restaurant kitchens, internal train doors, etc.).

A single 1 SAFE or several in unison will provide safety in revolving air locks.

The 1 SAFE works vertically (with background) as well as horizontally (if necessary, without background).



INFRARED
TECHNOLOGY



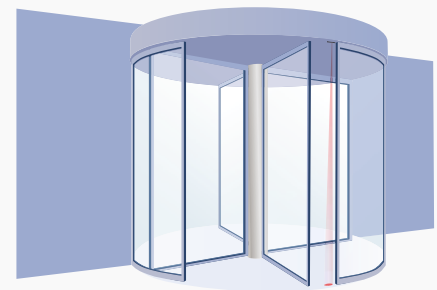
Revolving door



2 m 20



APPLICATIONS



Safety at the pinching zone



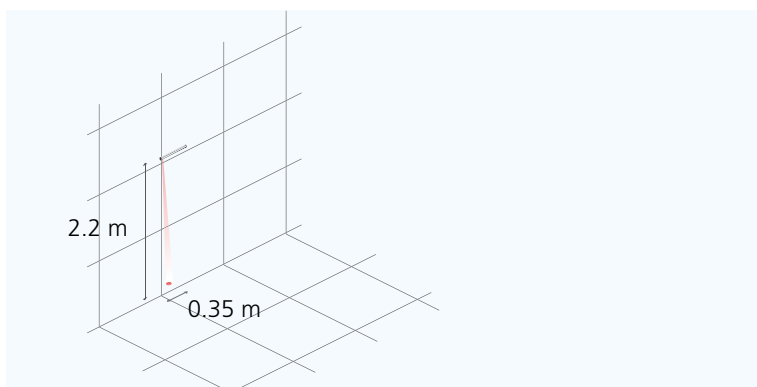
TECHNICAL SPECIFICATIONS

Technology	PRESENCE Active Infrared with background suppression
Number of spots	1
Mounting height	1.6 m – 3 m (automatic mode) 0.6 m – 3 m (manual mode)
Dimensions	With bracket : 144 mm (L) × 52 mm (H) × 43 mm (W) Without bracket : 110 mm (L) × 50 mm (H) × 30 mm (W)
Norms	EMC 2004/108/EEC

EASE OF INSTALLATION

- PUSH & GO**
 For the most common applications and installation heights, a single pressure on the control button is enough. The sensing area is adjusted automatically.
- MANUAL MODE**
 For special applications (greater height, reflective floors, horizontal applications, etc.), a “manual mode” using an adjusting screw and dip-switch enables precise adjustments of the sensing area.

DETECTION RANGE



Infrared area 35 mm × 70 mm @ 2,2 m

LZR®-P220

EN 16005

DIN 18650



SAFETY SENSOR FOR REVOLVING DOORS

The laser sensor **LZR®-P220** guarantees safety of people in the pinch zone of revolving doors.

FEATURES

1 high resolution laser curtain with a digitally adjustable tilt angle (274 points every 66 ms, tilt angle of 0°, 2°, 4°, 6°).

Detection field: gradually adjustable width from 10 cm to 100 cm, maximum height of 5 m.

Conformity with European standards and regulations.

No reflectivity interferences as a result of time-of-flight technology.

Customized detection field thanks to point-to-point teach-in (6 points every 10 cm at 2.5m mounting height).

Optimized for outside applications through rain and snow filters plus an internal heating system.



LASER
TECHNOLOGY



Revolving door



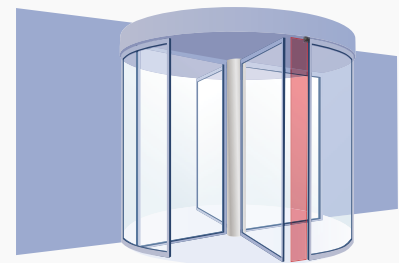
Remote control



3m



APPLICATIONS



Safety of the closing edge of revolving doors



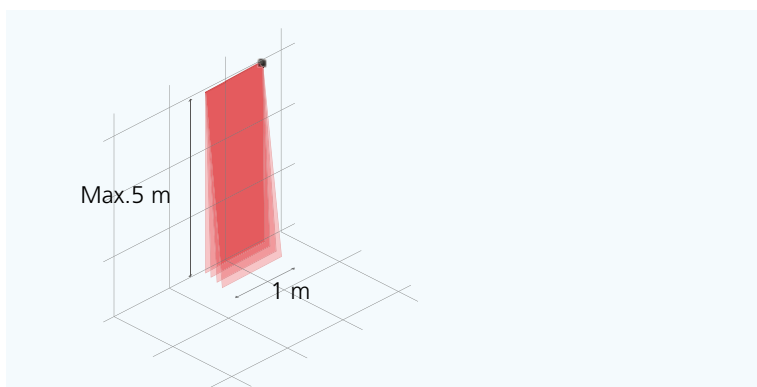
TECHNICAL SPECIFICATIONS

Technology	LASER scanner, time-of-flight measurement
Mounting height	5 m x 1 m (at max. 4 m according to DIN 18650)
Dimensions	125 mm (L) x 93 mm (H) x 70 mm (W) (mounting bracket + 14 mm)
Norms	2006/95/EC: LVD; 2002/95/EC RoHS; 2004/108/ EC EMC; 2006/42/EC:MD EN 12978:2009 EN ISO 13849-1 : 2008 Pl «d» / CAT2 EN 60529:2001 IP 65 IEC 60825-1:2007LaserClass1&3R;EN 60950- 1:2005 EN 61000-6-2:2005 EMC - Industrial level EN 61000-6-3:2006 EMC - Commercial level IEC 61496-1:2009 EN 61496-3:2008 ESPE Type 2 EN 62061:2005 SIL 2 DIN 18650-1:2010 Chapter 5.7.4

EASE OF INSTALLATION

- User-friendly angle adjustment of the detection zone with the help of 3 visible laser beams.
- Automatic teach-in of the detection field launched by one push on the remote control.
- Easy configuration of the sensor thanks to the universal BEA remote control.

DETECTION RANGE



Field width from 10 cm to 100 cm at max. 4 m mounting height

FOR FURTHER INFORMATION ABOUT
THE BEA RANGE OF PRODUCTS

www.bea.be



www.bea-pedestrian.be

SENSOR SOLUTIONS FOR REVOLVING DOORS

44-0307 V1/12.12

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