

## RADARS

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It is a detection system based on microwaves. The technology of the device is based on the Doppler effect. The Doppler effect is the apparent frequency change of a wave produced by the relative movement of the source with respect to its observer.

#### OPERATION

The emitter and the receiver are in the same unit located in the centre and the upper part of the door. The emitter emits a microwave beam that bounces on the surfaces and returns to the receiver. When an object or person moves in the detection field, the echo frequency changes and, this being understood as a presence, the receiver operates a contact used to open the door.

The microwave beam makes up a detection zone in lobular shape and that is larger according to the assembling height.

Some parameters, such as sensitivity, movement direction and some immunity to vibrations, can be adjusted. It is also possible to modify the size and the shape of the lobe.

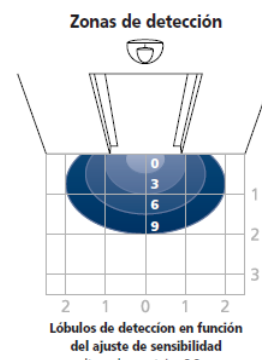


Figure 1. Eagle One: until a height of 4000 mm



Figure 2: Falcon: from 3000 to 6000 mm



Figure 3. Condor: from 3500 to 6000 mm

#### CHARACTERISTICS

- ✓ They do not discriminate between people and vehicles, since what they detect is movement. For the same reason, they should be located on a surface not having movement or tremors.

EAGLE ONE	
Characteristic	Details
Power supply	12...24 V AC/DC 50.
Approximative consumption	2 W.
Frequency emitted	24 GHz
Angle of incline	0...90° vertical; -30...+30° lateral.
Temperatures	-20...+55 °C.
Protection IP	IP54.
Sizes	120 x 80 x 50 mm (width x height x depth).
Detection minimum speed	5 cm/s.
Material	ABS.
Detection area	3 m width x 2 depth, assembled at 4 m height.
Detection mode	Movement.
Remote adjustable parameters	Sensitivity, immunity, detection mode, activation time.

<b>FALCON</b>	
<b>Characteristic</b>	<b>Details</b>
<b>Power supply</b>	12...24 V AC/DC.
<b>Approximative consumption</b>	2 W.
<b>Frequency emitted</b>	24 GHz.
<b>Angle of incline</b>	0...180° in elevation.
<b>Temperatures</b>	-30...+60 °C
<b>Protection IP</b>	IP65.
<b>Sizes</b>	102 x 96 x 127 mm (width x height x depth).
<b>Detection minimum speed</b>	5 cm/s.
<b>Material</b>	ABS and polycarbonate.
<b>Detection area</b>	4 m width x 4 depth, assembled at 5 m height.
<b>Detection mode</b>	Movement.
<b>Remote adjustable parameters</b>	Sensitivity, immunity, detection mode, activation time. Pedestrian exclusion and parallel traffic function

<b>CONDOR</b>	
<b>Characteristic</b>	<b>Details</b>
<b>Power supply</b>	12...24 V AC/DC 50.
<b>Approximative consumption</b>	3,4 W.
<b>Frequency emitted</b>	24,150 GHz
<b>Angle of incline</b>	0...180° in elevation.
<b>Temperatures</b>	-30...+60 °C.
<b>Protection IP</b>	IP65.
<b>Sizes</b>	127 x 96 x 102 mm (width x height x depth).
<b>Detection minimum speed</b>	5 cm/s.
<b>Material</b>	ABS and polycarbonate.
<b>Detection area</b>	Movement: 4.000 x 5.000 mm. Presence: 4.000 x 4.000 mm.
<b>Detection mode</b>	Movement and presence.
<b>Remote adjustable parameters</b>	Sensitivity, immunity, detection mode, activation time. Pedestrian exclusion and parallel traffic function

### **CERTIFICATES AND STANDARDIZATIONS**

This product has been designed according to regulations EN 1760-2, EN 954-1, DIN V 31006 part 2, ZH1/494, VBG5.

The information contained in this descriptive text is general for the referenced product. In no case is it binding or contractual. Portes Bisbal S.L. reserves the right to modify the features herein.

**ZONAS DE DETECCIÓN = DETECTION AREAS**

**LÓBULOS DE DETECCIÓN EN FUNCIÓN DEL AJUSTE DE SENSIBILIDAD = DETECTION LOBES BASED ON THE SENSITIVITY ADJUSTMENT.**

**ALTURA DE MONTAJE. 2,2 M. = ASSEMBLING HEIGH 2,2 M.**