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Microwave Motion Detector with Microprocessor Technology

Mars – Microwave Motion Detector with Microprocessor Technology

Description / Settings / Mounting

Description

Mars is a microwave motion detector which detects people and/or objects at automatic pedestrian and industrial doors. It is a standalone trigger sensor. It operates in the K-Band (24 GHz) and accords to the Doppler principle.

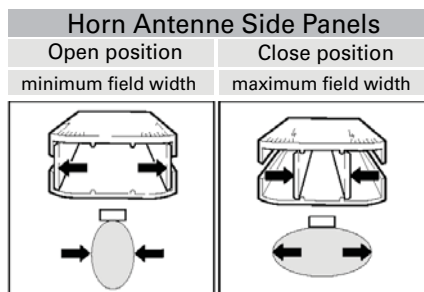
Within the defined detection zone, movements of minimum 5 cm/s and maximum 5 m/s (people and/or objects such as shopping trolleys, vehicles etc.) are detectable. However, people or objects that are not moving will not be detected.

Detection Field Settings

The required field width can be set by adjusting the side panels on the horn antenna. Each of the two side panels can be moved to the left or right until they are parallel with the centre – thus enabling asymmetric detection areas to be set.

Important

The mechanical setting of the side panels is opposite (reciprocal) to the field formed on the ground.



Great Depth of Field

Moving objects can be detected in a more reliable and precise manner.

The switching points, which are limited exactly, ensure constant and steady response behaviour.



Linearized Potentiometer

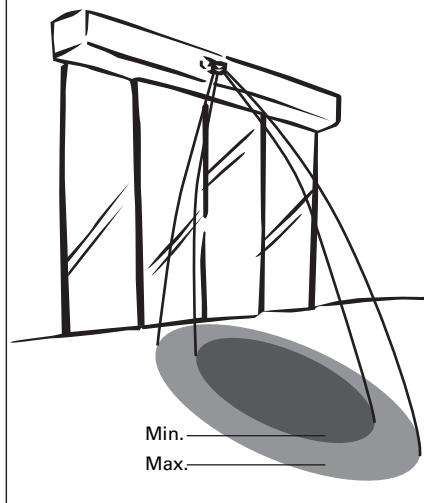
Field dimensions can be set to optimum with the linearized potentiometer.

Detection Fields

Adjustable antenna (open position)



Sensitivity potentiometer

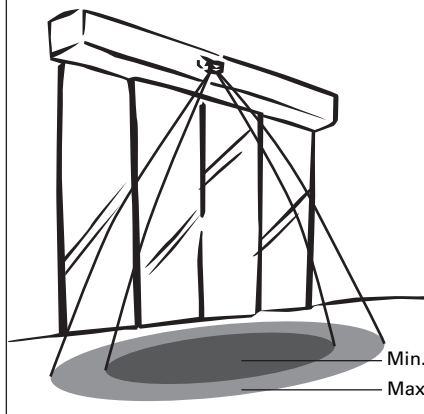
-  Minimum field dimensions
1.0 x 0.5 m (3'3" x 1'8")
-  Maximum field dimensions
2.5 x 2.5 m (8'2" x 8'2")



Adjustable antenna (close position)

Sensitivity potentiometer

-  Minimum field dimensions
1.5 x 1.0 m (4'11" x 3'3")
-  Maximum field dimensions
3.5 x 2.0 m (11'6" x 6'7")



Experience value at 2.2 m (7'3") mounting height.

Maximum mounting height is 4 m (13'1").

Function Settings

Digital Filter Functions

Interference signals from fluorescent lamps, rain, snow etc. are quickly suppressed by means of the variable digital filter function. This filter ensures that automatic pedestrian and industrial doors function to an optimum.

Sensitivity

The response sensitivity is adjustable using the linearized potentiometer. The sensitivity of the device depends on the surface structure and the surface dimensions of the object to be detected. The detection zones defined by the position of the antenna are affected by the change in sensitivity.

Output Hold Time

The output hold time of the relay output can be set with the potentiometer.

Direction Recognition

The standard sensor Mars /31 has no direction recognition. Only the type Mars DR /31 offers the direction recognition. It evaluates only signals towards the motion detector. Sliding and draught-proof doors, elevators and vehicle doors etc. can thus be closed up to 50% faster. Environmental awareness, energy and cost savings are no longer empty promises.

Mounting Options

The device can be mounted both on the ceiling or wall, and the connection is very simple. Additional advantage: Thanks to the compact housing the settings cannot be tampered with by vandals.

For Simple Applications

The cost-performance ratio of the Mars unit is optimal. Therefore it is the best sensor solution for simple automatic pedestrian and industrial doors applications.

Applications

Automatic Pedestrian Doors

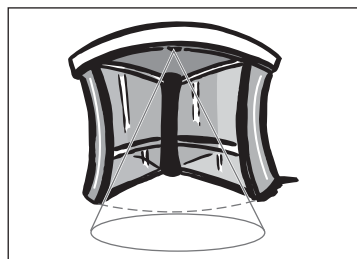
Trigger sensor for sliding doors, revolving doors, semi-circular doors, etc.

Automatic Industrial Gates

Trigger sensor for high-speed industrial doors, swing doors, barrier system etc.
Opening command for barrier systems

Elevators and escalators

Cabin-access control
Starting sensor for escalators



Ordering information

| Article No. | Designation / Type | Colour | Scope of Delivery |
|-------------|--------------------|--------|--|
| 212539 | Mars /31 | black | 3 m cable, without direction recognition |
| 212549 | Mars /31 | silver | 3 m cable, without direction recognition |
| 212550 | Mars DR /31 | black | 3 m cable, with direction recognition |
| 212553 | Mars DR /31 | silver | 3 m cable, with direction recognition |

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