

Radar motion sensor

RaCon-D WH



- Premium radar motion sensor
- Detection of people and objects for automatic doors
- Fine tuning of functions and setting adjustment range
- Remote control or push button for functionality setting
- Wall and ceiling mountable

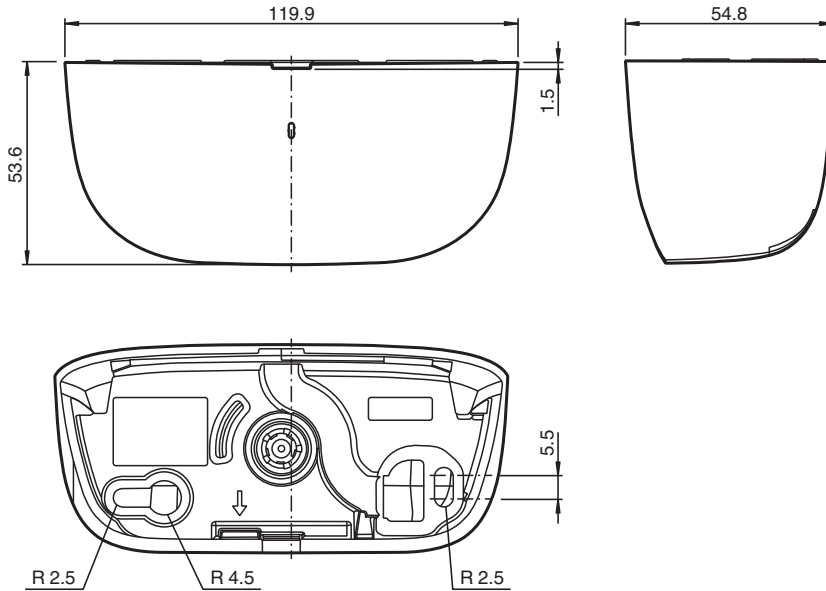
Premium radar motion sensor with premium functionality, detection range 2 m x 4.5 m, max. installation height 4 m, white housing, solid-state relay, cable connection



Application

- Opening impulse sensors for automatic doors and industrial doors
- Monitoring approach areas to elevators
- Motion sensors for people and objects
- Impulse sensors for escalators

Dimensions



Technical Data

General specifications

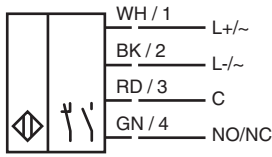
Sensing range	2000 x 4500 mm (DxW) at 2200 mm mounting height and 60° inclination angle 4000 x 2000 mm (DxW) at 2200 mm mounting height and 60° inclination angle
Function principle	Microwave module

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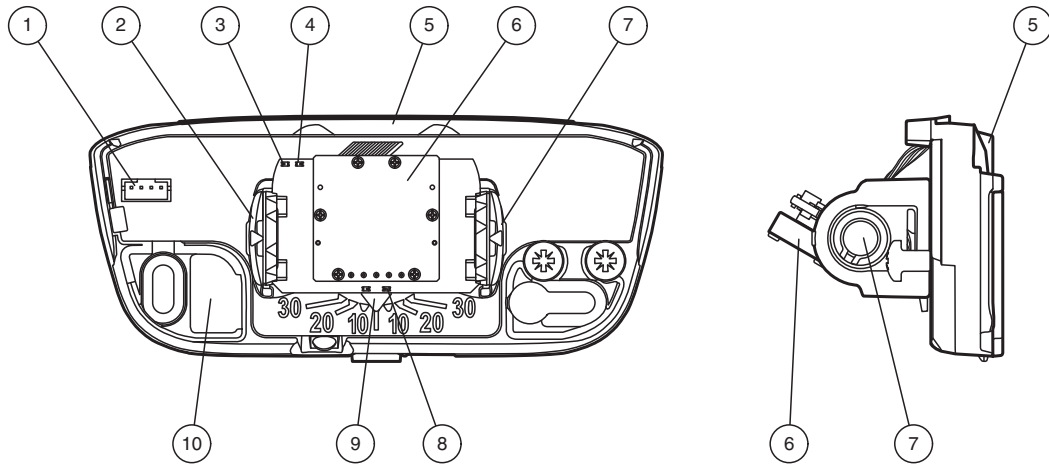
Technical Data

Detection speed	min. 0.05 m/s	
Setting angle		
Rotation angle	-30 ... 30 ° in 5 ° increments	
Inclination angle	0 ... 90 ° in 5 ° increments	
Operating frequency	24.15 ... 24.25 GHz K-Band	
Operating mode	Radar motion sensor	
Transmitter radiated power (EIRP)	< 13 dBm	
Functional safety related parameters		
MTTF _d	520 a	
Mission Time (T _M)	15 a	
Diagnostic Coverage (DC)	0 %	
Indicators/operating means		
Function indicator	detection : LED green push button indication : LED yellow / green	
Control elements	Push button for selection of operating modes : sensitivity , direction detection , cross-traffic suppression , slow-motion mode , relay switching type, hold time, immunity, swing door mounting	
Control elements	Operation mode selection alternativly via remote control (Accessories ordered separately)	
Electrical specifications		
Operating voltage	U _B	12 ... 24 V DC , - 10 % / +30 % 12 ... 24 V AC , 50 ... 60 Hz , -10 % / +15 %
No-load supply current	I ₀	≤ 35 mA at 24 V DC
Power consumption	P ₀	≤ 0.85 W ≤ 1 VA
Output		
Switching type	Normally open/closed (NO/NC)	
Signal output	solid-state relay	
Switching voltage	max. 28 V AC / 36 V DC	
Switching current	max. 0.1 A AC / 0.1 A DC	
Hold time	min. 1.5 s max 20 s	
Approvals and certificates		
CE conformity	2014/53/EU This device can be used in all countries within the European Union. In other countries, all applicable national regulations must be observed.	
Ambient conditions		
Operating temperature	-25 ... 55 °C (-13 ... 131 °F)	
Storage temperature	-30 ... 70 °C (-22 ... 158 °F)	
Relative humidity	max. 90 % non-condensing	
Mechanical specifications		
Mounting height	max. 4 m	
Degree of protection	IP54	
Connection	Connecting cable 2.5 m included with delivery	
Material		
Housing	PC (Polycarbonate)	
Mass	approx. 120 g	
Dimensions	120 mm x 55 mm x 54 mm	
Height	55 mm	
Width	120 mm	
Depth	54 mm	

Connection



Operation



1	Connector
2	Push button, left: -
3	Push button and detection indication: LED green
4	Push button indication: LED yellow
5	above cable entry (optional)

6	Antenna
7	Push button, right: +
8	Detection: LED green
9	Rotation angle
10	Cable entry (default)

Function Principle

Microwave sensors are microwave scanners that use the principle of the Doppler radar. The most important requirement for microwave detection is that the object to be detected is moving. Some applications include controlling automatic doors and industrial doors.

The microwave sensors emit microwaves of a defined frequency to detect people and large objects moving at speeds between 0.05 m/s ... 2 m/s. Stationary people or objects are not detected.

Based on the latest 24 GHz technology with integrated microprocessor control, these sensors provide a high level of reliability, even in difficult operational conditions. The 24 GHz frequency, known as 'K-band,' is reserved by CETECOM for this application area all round the world.

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