

Microwave Intruder Detector

Intruder detection



Outside picture

Reflector

INTRUDER DETECTOR IN WHICH DISTANCE MEASUREMENT IS POSSIBLE.

Because of the used of radio waves (microwave), the detector is resistant to weather conditions such as rain, wind, snow, and fog, causes less detection errors even in outdoor locations under environmentally harsh conditions.

This detector complies with 24GHz band specified low-power radio station and technical regulation conformity certification. In Japan, the radio station license application

KEY FEATURES

1 Long-distance monitoring

If the human body, in the standalone type up to 100m, and the opposite type can be monitored up to a distance of 200m.

2 Reduce the non-detection and false alarm

Method is adopted FMCW, in order to detect the intrusion in the distance and the reflection level, reduction of the non-detection and false alarm.

3 Maintain the landscape

Since radiowave (24 GHz) is used, in walls (wood, chalk wall, resin, etc.), sensor can be concealed and scene can be maintained.
(Detection distance may become short according to the quality of the material.)

4 Intrusion detection can be located

Since intrusion location is detectable, it is possible to set intrusion detection area and non-detecting area.

5 Wide detection ranges

Detection area is dependent on the angle of the antenna beam, which covers a wide area in a single detection sensor as compared to the infrared sensor.

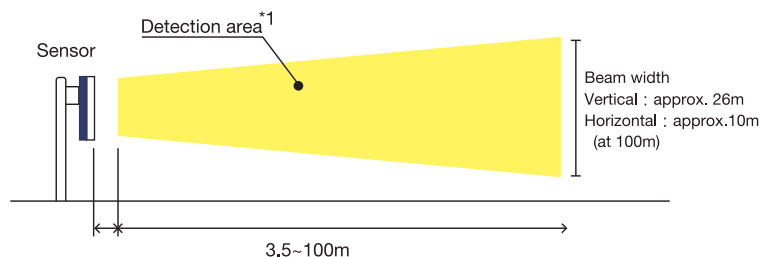
6 Setup adjustment and addition of sensor are easy

Severe optical axis alignment like infrared sensor is unnecessary. Since sensor itself can avoid radio wave interference, sensor can be added easily.

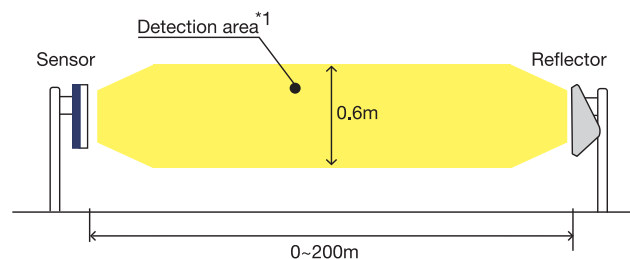
Standalone type intrusion detection

Opposite type intrusion detection

● Sensor only



● Sensor and reflector

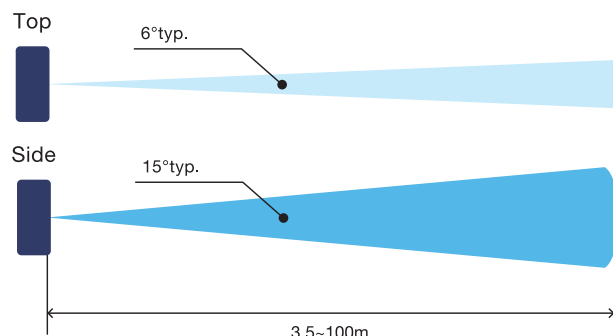


*1 By adjusting the threshold, the alarm area in the detection area is changed.

Detection area(Standalone type)

Distance

Detectable distance 3.5~100m(Standard reflector)
Maximum detection distance will vary depending on the shape and reflectance of the object.



Beam angle

By using a planar antenna, -3db in bandwidth, has realized an angle as narrow as 6° (typ.) beam angle, and it is difficult to be affected by influence of object around measurement target.

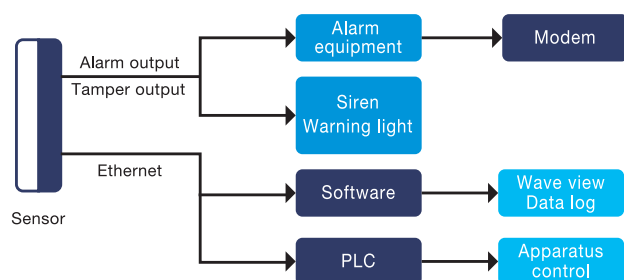
Beam width(Indication)

Range	6° plate	15° plate
20m	approx. 2m	approx. 5m
40m	approx. 4m	approx. 10m
60m	approx. 6m	approx. 16m
80m	approx. 8m	approx. 21m
100m	approx. 10m	approx. 26m

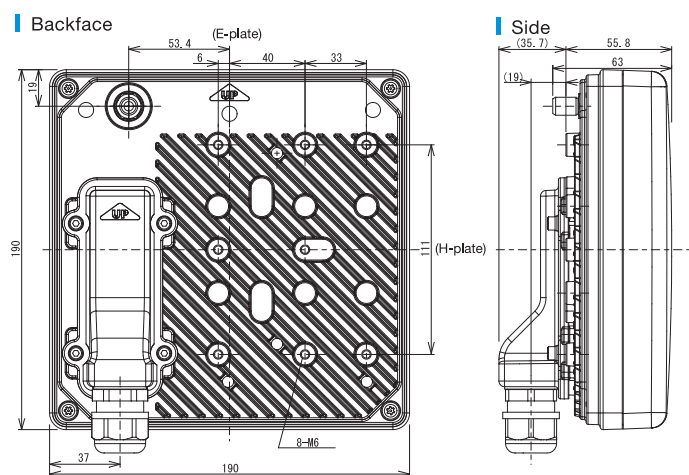
System cofiguration/External view

System configuration example

Output to Ethernet or relay contact, the operating status and the status of intrusion detection is possible.



Outside drawing/Dimension



Specification

Model	BSS01
Measurement method	FM-CW
Detection method	[Standalone] Microwave intercept method [Opposite] Microwave reflection detect
Technical standards	"ARIB STD-T73" Compliance(Only in Japan)
Frequency	24.05~24.25GHz
Sweep frequency	200MHz max.
Output power	10mW max.
Antenna directionality	E-plate : approx. 6° H-plate : approx. 15°
Detection range	[Standalone] 3.5~100m(Standard reflector) [Opposite] 0~200m(Standard reflector) Alarm width : Confirms to the antenna directionality Requirement : No weeds and trees
Detection time	50msec min.
Dimensions	190(W)×196(H)×92(D)
Materials	Radome : AES / Backside cover : Aluminum
Weight	2.0kg or less
Input voltage	DC11~30V(No-polarity)

Power consumption	Typ. 7.5W
Operating temperature	-20~60°C
Storage temperature	-30~75°C
Waterproof	IP67(Compatible) Cable O.D. range:6~11mm(1 hole) / 2.5~6mm(2 holes) Connector O.D. :14mm or less(RJ-45 compatible)
Interface	4 outputs (SPST-N.C.) (Alarm:2, Tamper:1, Monitor:1) Ethernet (100Base-TX/10Base-T)
Synchronized operation	8 sets (Maximum, Within a 200m radius)

Reflector specification

Model	PRF-300
Dimension	285(W)×251(H)×126(D)
Materials	Body : Stainless steel 304 Cover : PTFE
Weight	1.4kg or less
Power supply	No
Option	Mounting bracket

This specifications are subject to change without notice.