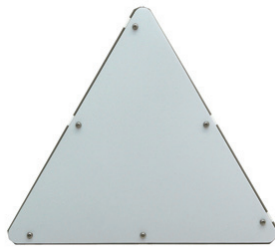


Microwave Intruder Detector

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 is not required.

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

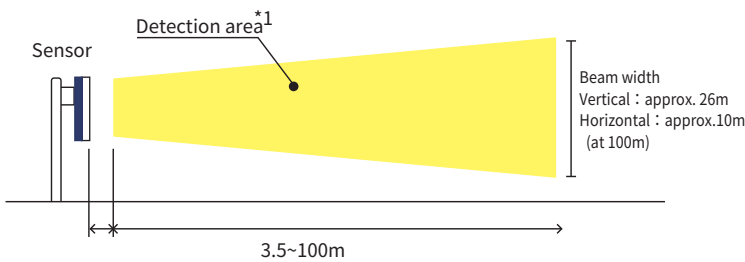
Detection area is dependent on the angle of the antenna beam, which covers a wide area in a single detection sensor as compared to the infrared sensor.

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.

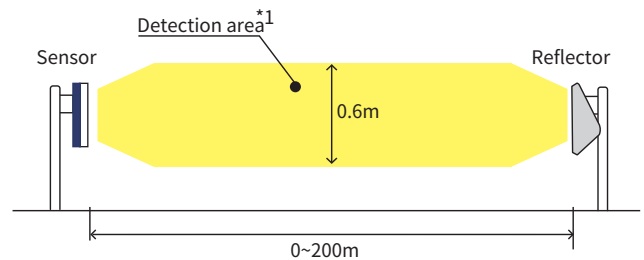
Standalone type intrusion detection

● Sensor only



Opposite type intrusion detection

● Sensor and reflector

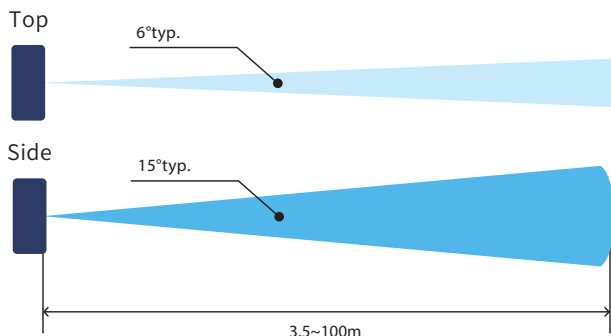


*1 By adjusting the threshold, the alarm area in the detection area is changed.

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.

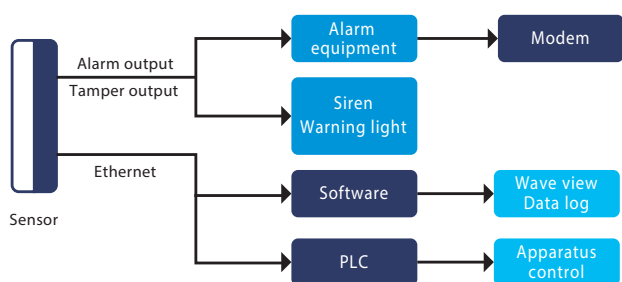
Beam width(Indication)

| 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 |

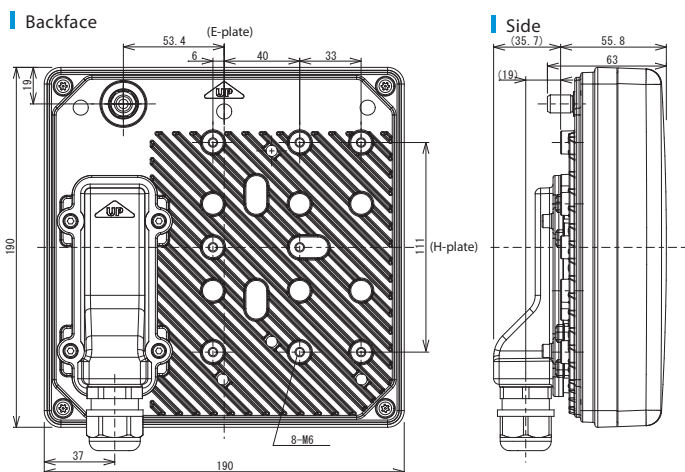
System configuration/External view

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 |

| | |
|------------------------|--|
| 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 | 180MHz : 18 sets (Maximum, Within a 400m radius) 90MHz : 23×2 sets (Maximum, Within a 400m 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.

As for the products shown in this catalog, we assume no responsibility in the event of any theft, accident causing injury or death, disaster, and environmental disruption as well as any accident damage by misuse of the equipment insufficient maintenance checks, acts of God (including lightning-induced surge), or the like.