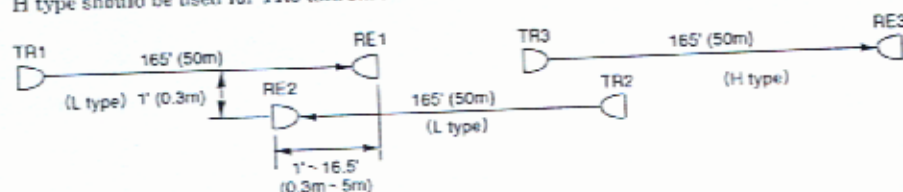


4) Installation example

When two or more sets are used, two frequencies (L and H types) should be used in order to avoid cross talk or interference. Refer to the following example.

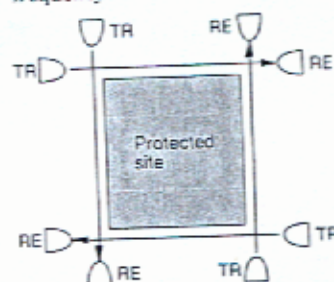
● Linear protection

H type should be used for TR3 and RE3 when TR1 and RE1 are L type.



● Perimeter protection

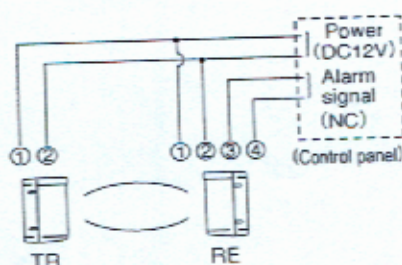
Do not install the transmitter and the receiver at a same corner. Microwave sensor with the same frequency can be used for this case.



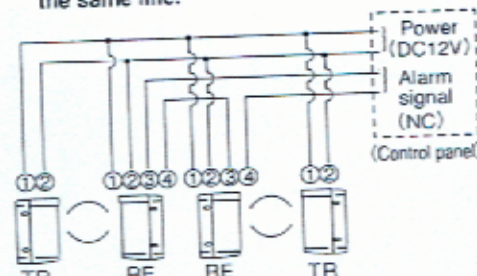
Wiring

The equipment must be powered from an LPS in accordance with EN60950-1 : 2001

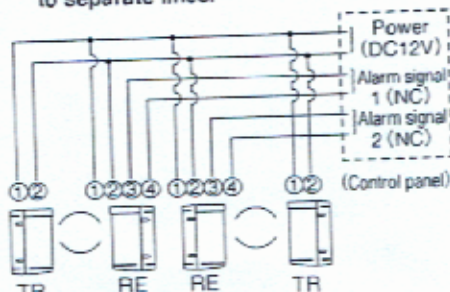
1) Basic connection



2) When two or more sets are connected to the same line.



3) When two or more sets are connected to separate lines.

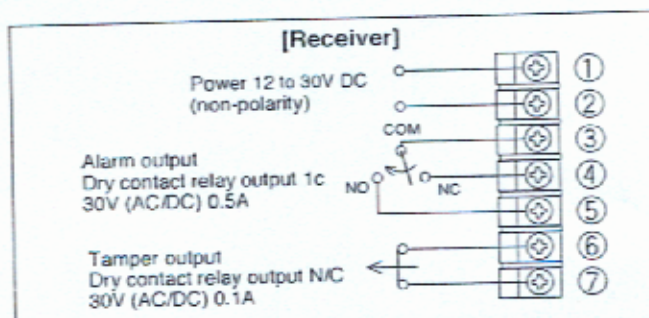
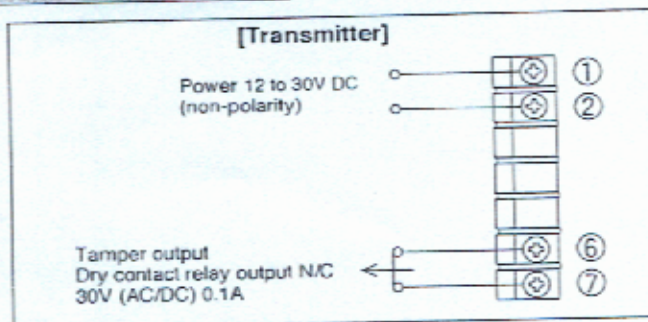


4) Wiring distance

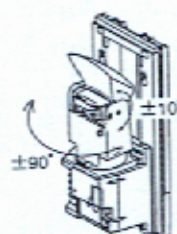
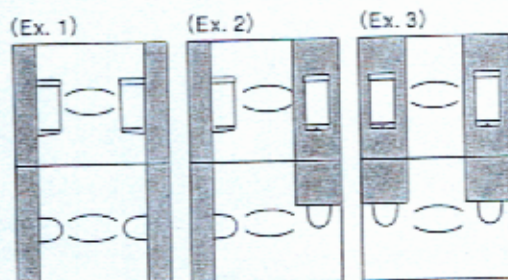
Size of wire used	Power voltage	
	12V DC	24V DC
AWG 20 (Dia. 0.8mm)	Up to 660ft. (200m)	Up to 5400ft. (1600m)
AWG 18 (Dia. 1.0mm)	Up to 1000ft. (300m)	Up to 8000ft. (2400m)
AWG 17 (Dia. 1.1mm)	Up to 1320ft. (400m)	Up to 9570ft. (2900m)
AWG 16 (Dia. 1.25mm)	Up to 1815ft. (550m)	Up to 12540ft. (3800m)
AWG 15 (Dia. 1.4mm)	Up to 2310ft. (700m)	Up to 16830ft. (5100m)
AWG 14 (Dia. 1.6mm)	Up to 2970ft. (900m)	Up to 21120ft. (6400m)

- Note : 1) Max. wiring distance when two or more sets are connected is the above value divided by the number of sets.
2) The signal line can be wired to a distance of up to 6,000ft. (2,000m) with AWG 20 (dia.0.8mm) telephone wire.

Terminal arrangement



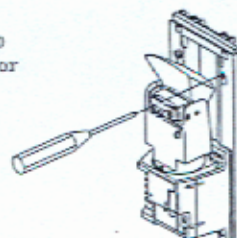
Mounting



- 1) Detach the sensor cover with a screw driver.



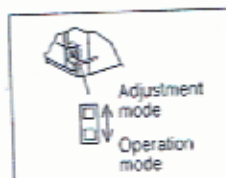
- 2) Detach the mounting plate to loosen 2 screws that fix sensor body to the mounting plate.



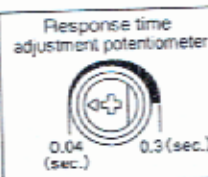
5 FUNCTIONS DESCRIPTION

1. Adjustment mode switch

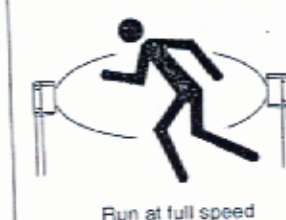
With this switch, speedy check of beam reception level is possible.
When making beam alignment, turn the switch to the "Adjustment mode".



2. Response time adjustment volume



Response time : 0.04 sec.



Response time : 0.3 sec.



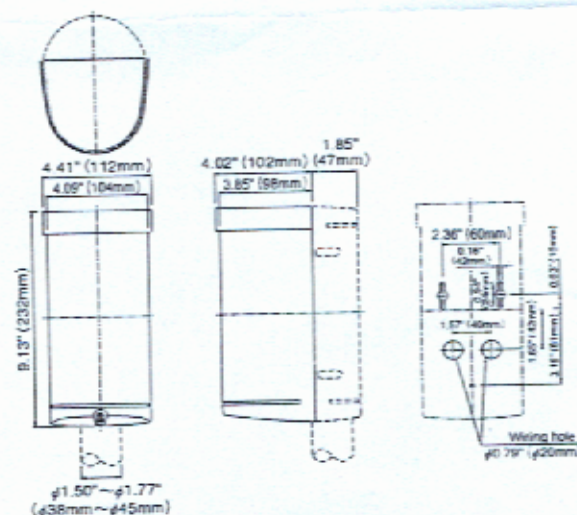
6 TROUBLESHOOTING

Symptom	Possible cause	Remedy
Transmitter LED does not light	1. No power supply 2. Bad wiring connection or broken wire, short	1. Turn on the power 2. Check wire
Receiver LED does not light when the beam is broken	1. No power supply 2. Bad wiring connection 3. Microwave is reflected on another object and sent into the receiver	1. Turn on the power 2. Check wire 3. Remove the reflecting object or change the place for installation
Receiver LED continues to light (An alarm does not stop)	1. No power supply on transmitter 2. Angle adjustment of transmitter and receiver is not appropriate. 3. Obstacles between transmitter and receiver	1. Turn on the power on transmitter 2. Re-adjust angle adjustment 3. Remove obstacles.
Intermittent alarm	1. Bad wiring connection 2. Change of supply voltage 3. Shading objects between transmitter and receiver 4. A large electric noise source such as power machine is located nearby transmitter and receiver 5. Installation height, installation site or angle adjustment is inappropriate	1. Check again 2. Stabilize supply voltage 3. Remove the shading object 4. Change the place of installation 5. Re-adjust

7 SPECIFICATION

Type	Microwave sensor	
Model	MW-50	
Protection distance	3.3ft.(1m) to 165ft.(50m)	
Max. arrival distance	Approx. 330ft. (100m)	
Microwave	(L) 24.11GHz	(H) 24.19GHz
Detection system	Microwave	
Response time	0.04sec. to 0.3sec. (Variable at pot.)	
Alarm signal	Dry contact relay output 1C N/O and N/C Contact action : Interruption time output Contact capacity : 30V (AC/DC) 0.5A or less	
Supply voltage	12 to 30V DC	
Power consumption	100mA • Transmitter : 50mA • Receiver : 50mA	
Tamper signal	Dry contact output 1b (N/C) Contact capacity : 30V (AC/DC) 0.1A (Receiver only)	
Alarm LED (Receiver)	Red LED Lighting at alarm	
Transmission LED (Transmitter)	Green LED Lighting at sending signal	
Functions	Monitor output, Adjustment mode switch	
Weight	Transmitter 710g Receiver 760g	
Appearance	Wine red PC resin	

8 EXTERNAL DIMENSIONS



Limited Warranty :

TAKEEX products are warranted to be free from defects in material and workmanship for 12 months from original date of shipment. Our warranty does not cover damage or failure caused by Acts of God, abuse, misuse, abnormal usage, faulty installation, improper maintenance or any repairs other than those provided by TAKEEX. All implied warranties with respect to TAKEEX, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to 12 months from original date of shipment. During the Warranty Period, TAKEEX will repair or replace, at its sole option, free of charge, any defective parts returned prepaid. Please provide the model number of the products, original date of shipment and nature of difficulty being experienced. There will be charges rendered for product repairs made after our Warranty period has expired.

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