

Installation Instruction

We would like to extend our thanks to you for purchasing this product. Before using this product, please read the following instructions carefully. Please retain this manual for reference in case it needs to be referred to during the lifetime of this product.

- WARNING** This symbol indicates an extremely dangerous situation. If the user ignores this symbol then serious injury or death can result.
- CAUTION** This symbol indicates a dangerous situation. If the user ignores this symbol then injury or damage to equipment can result.

1 General Description / Features

- The SSS-3 is a microprocessor controlled active infrared presence detector for swing doors.
- The detection range is easily set using a Rotary Dip Switch.
 - The detection range can be adjusted in increments of 0.1 [m]
 - The relay output mode can be changed using Dip Switch settings.

2 Components

This illustration below describes the SSS-3L2 that has two PCB units inside the Aluminum Case. For other models, please refer to the table below.

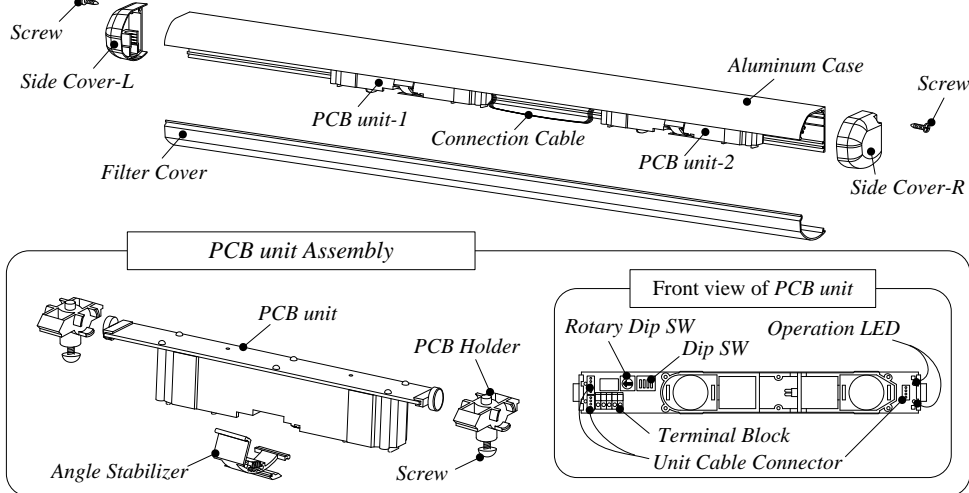
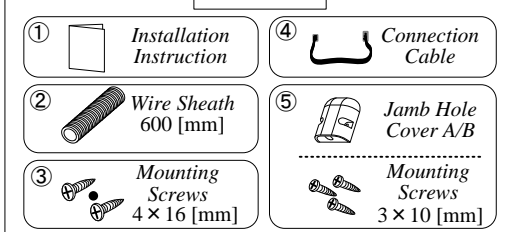


Table.1 SSS-3 lineup

Model name	Length [mm]	PCB Units	③	④
SSS-3S1	340	1	2	-
SSS-3M1	700	1	3	-
SSS-3M2		2	3	1
SSS-3L1	911	1	3	-
SSS-3L2		2	3	1

Accessories



3 Mounting and Wiring Information

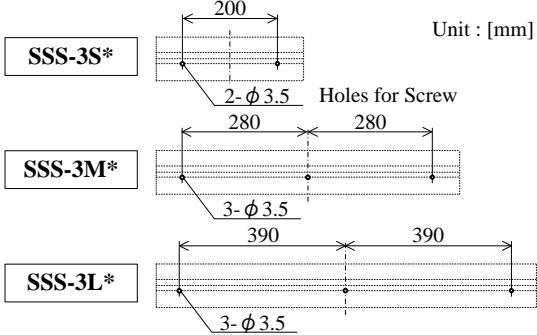
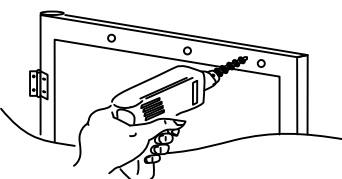
3.1. Notice **CAUTION** Before mounting this sensor, please confirm the following remarks.

- Do not mount higher than 2.6 [m] (8' 6").
- Do not mount where rain or snow will fall directly on the unit.
- Ensure the minimum of reflected sunlight from the floor.
- Ensure no condensation gets onto the sensor.
- The Aluminum Case(s) should be located close to the Leading edge of the door to maximise pedestrian safety.

3.2 Mounting Hole

WARNING Drilling may cause Electric shock! When drilling, pay attention to hidden wires.

Drill fixing holes as illustrated below. When installing the SSS-3 on both sides of the door it may be necessary to drill a wiring hole through the door. (Ref. 3.7 Plan View of SSS-3 Installation)



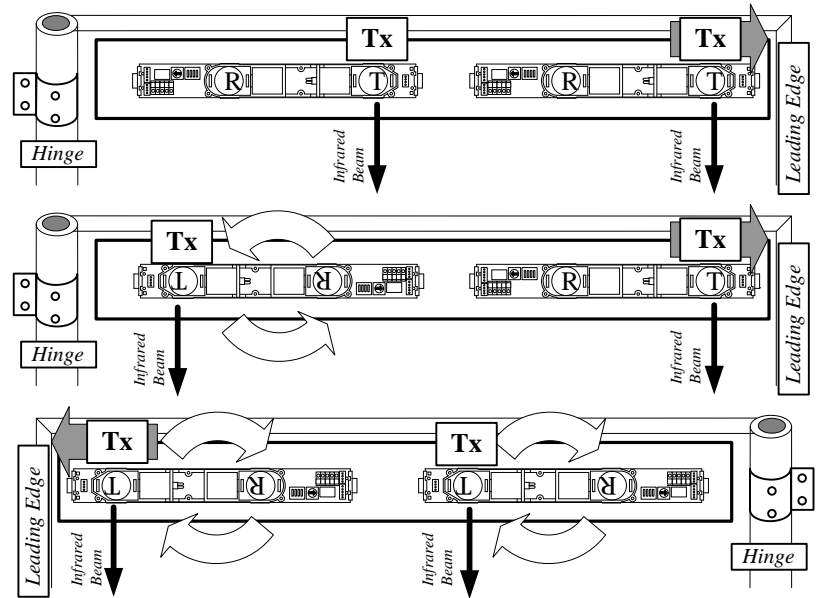
3.3 Mounting the Aluminum Case

- Unscrew the Side Covers and remove the Filter Cover.
- Remove Angle Stabilizer. 1) Lift and slide the Angle Stabilizer to the side as indicated. 2) Push the Angle Stabilizer with your thumb to remove it from the Aluminum Case.
- Remove the PCB Unit. Loosen the Screw on the PCB Holder and slide it aside to remove the PCB Unit.
- Fix the Aluminum Case with Screws.

3.4 Replacing the PCB unit(s)

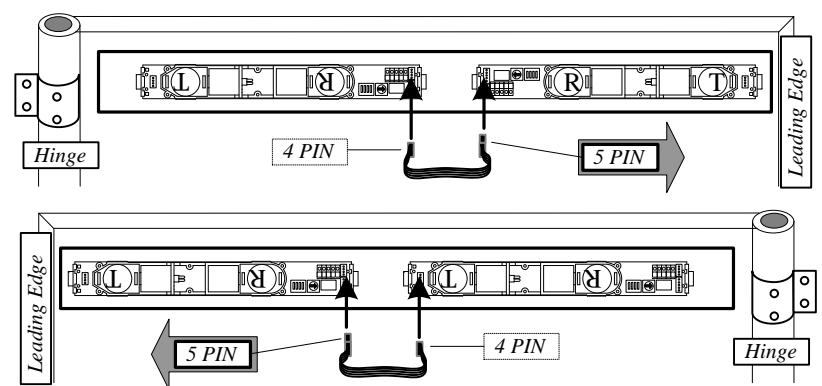
CAUTION When replacing the units, it is very important that the "Tx" side is installed closest to the Leading edge of the door.

- Remove the main cable Terminal block from the "Hinge side" PCB unit.
- Remove Connection Cable between PCB units.
- Replace the PCB Holder and fix it in position. Insert the PCB unit and Angle Stabilizer. If necessary rotate the PCB unit so that the "Tx" is closest to the Leading edge of the door as shown below. Max torque 0.78 Nm



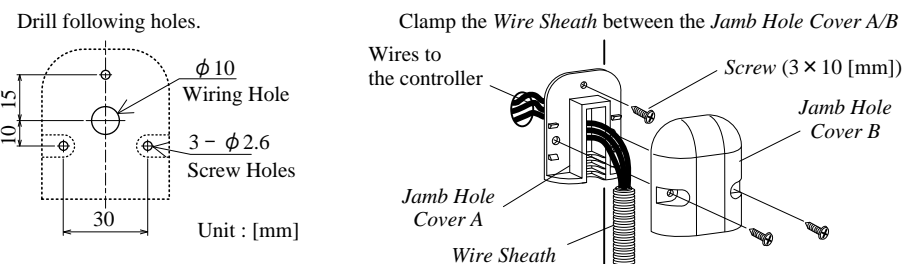
3.5 PCB unit connection

CAUTION When the SSS-3 consists of more than one PCB unit, the PCB units should be connected to each other using the Connection Cable. Note that the Connection Cable has a 5-pin and a 4-pin connector at the end of the Cable. The 5-pin connector should be connected to the "Leading edge" PCB unit, while the 4-pin connector should be connected to the "Hinge side" PCB unit.

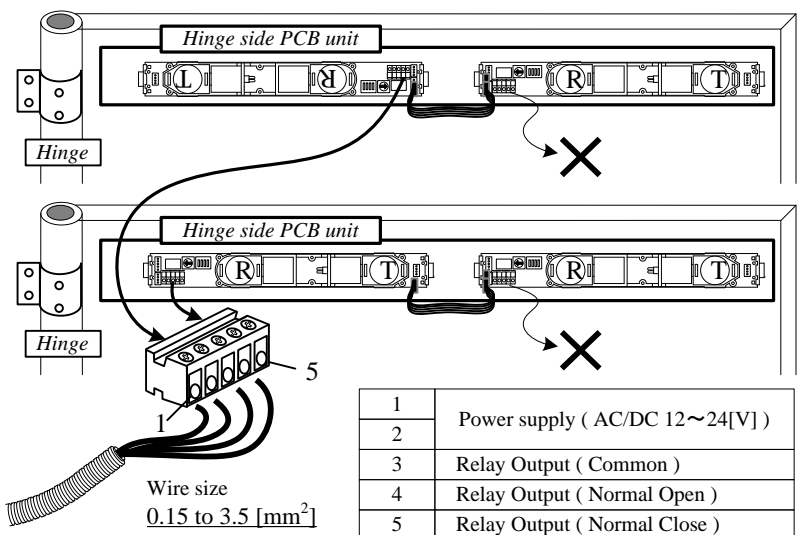


3.6 Wiring to the door controller

Install the Jamb Hole Cover and Wire Sheath when wiring to the door controller.

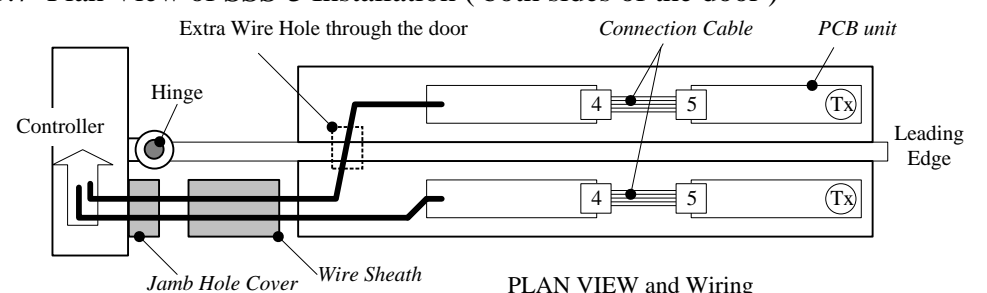


CAUTION Connect the wires to the door controller using the Terminal Block on the "Hinge side PCB unit". (Do not use the Terminal Block on the Leading edge PCB unit.)

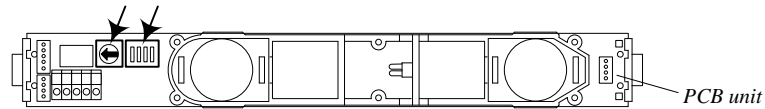


1	Power supply (AC/DC 12~24[V])
2	
3	Relay Output (Common)
4	Relay Output (Normal Open)
5	Relay Output (Normal Close)

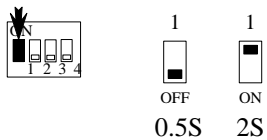
3.7 Plan View of SSS-3 Installation (both sides of the door)



4 Dip Switch Settings

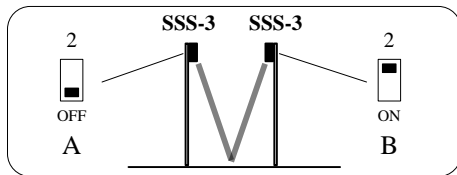


4.1 Relay Output Hold Time

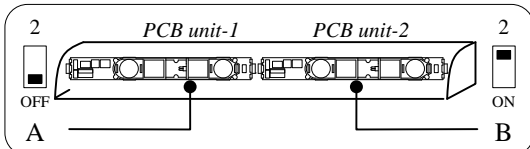


4.2 Optical Interference

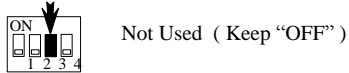
When two SSS-3's are installed in close proximity, optical cross interference between SSS-3 sensors may result. To prevent this ensure different frequency settings for SSS-3 sensors in close proximity.



When two or more PCB units are in the same Aluminium Case their frequency settings should also be set differently.

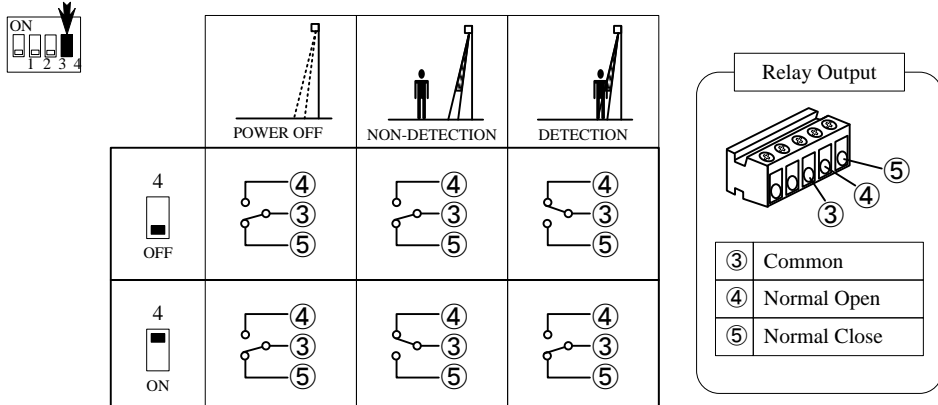


4.3 Reserved



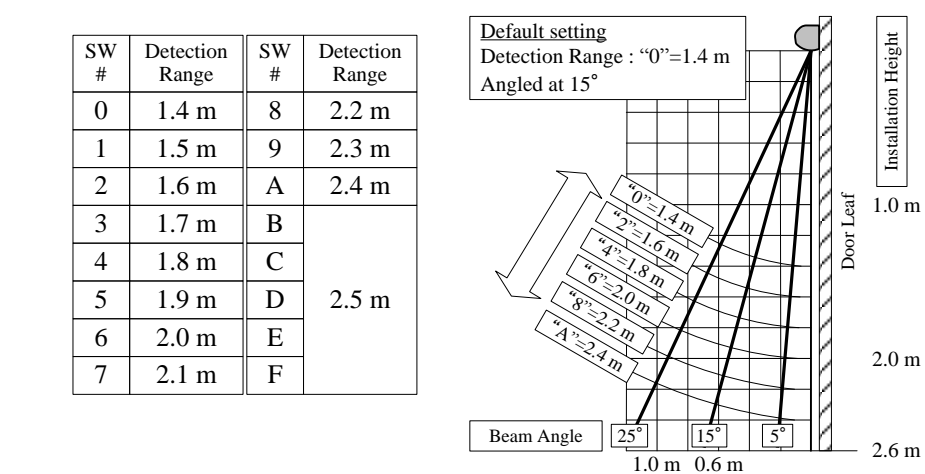
Not Used (Keep "OFF")

4.4 Relay Output Mode



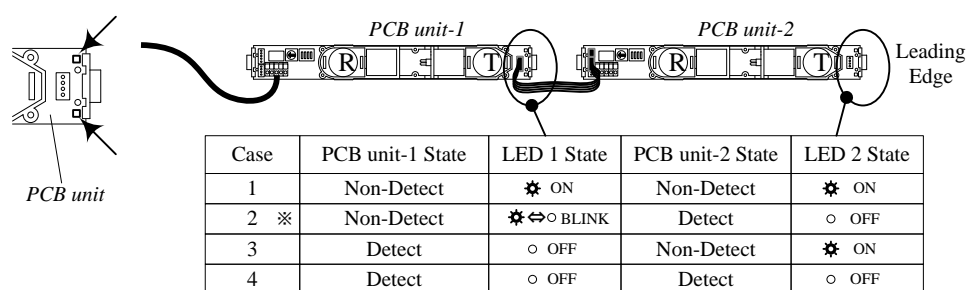
4.5 Detection Range

The detection distance can easily be adjusted using the Rotary Dip Switch. Note: The detection distance can vary depending on the installation environment it is therefore advisable to adjust and check detection range settings on site.



5 LED information

The Operation LED turns OFF when PCB unit detects an object.

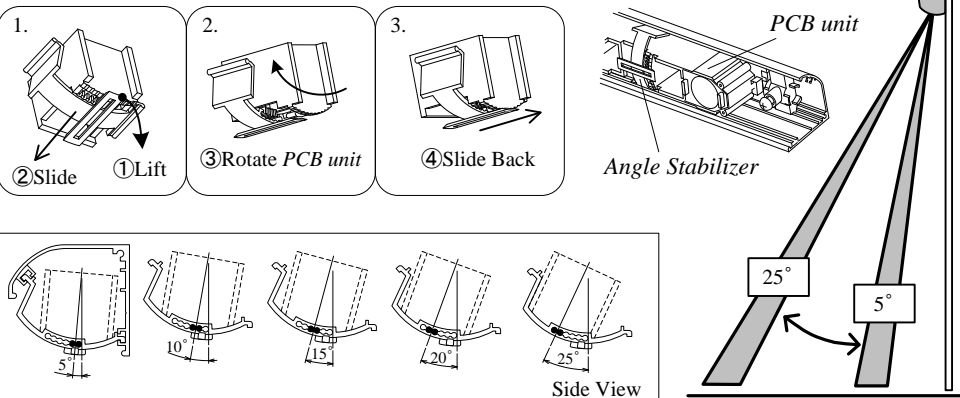


※ The blinking LED on PCB unit-1 indicates that the output of PCB unit-1 is in the detection state due to the fact that PCB unit-2 (Leading edge PCB unit) has detected an object.

6 Detection Angle Adjustment

The detection angle can be adjusted between 5 ~ 25 [deg] in 5 [deg] increments using the Angle Stabilizer.

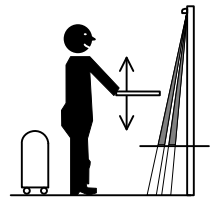
Example) Changing angle from 5° to 25°



7 Power On Check

BEFORE APPLYING POWER, CHECK THE WIRING AGAIN AND FOLLOW INSTRUCTIONS BELOW:

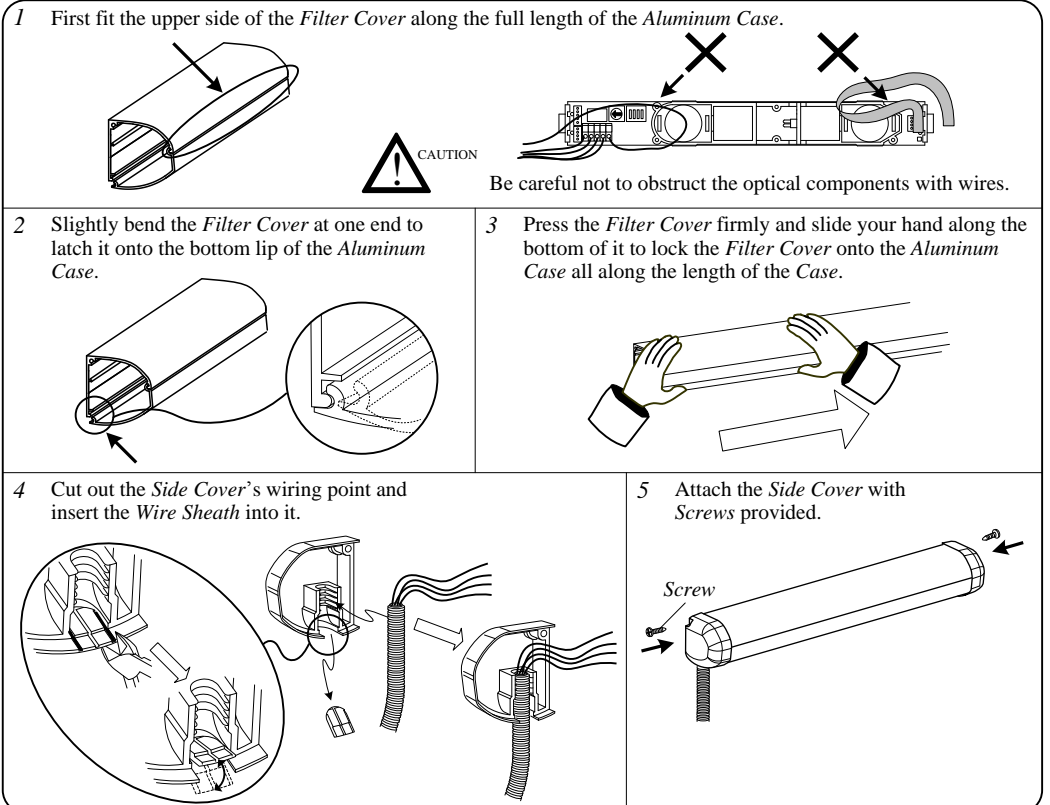
The "Power On Check" should be carried out with the Filter Cover removed. Put a test object in the detection area to verify the detection range and other Dip Switch settings. Test object detection verification as defined in local standards should be carried out.



After the "Power on Check", Turn power off.

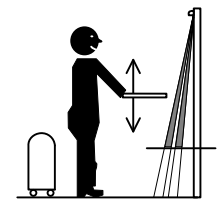
When "Power On Check" is completed, go to Section 8 below to install the Filter Cover and Side Cover. When errors are found during the "Power on Check" please go back to Section 3,4, & 6 and check wiring and Dip Switch settings again.

8 Replacing the Filter Cover and Side Cover



9 Final Detection Range Check

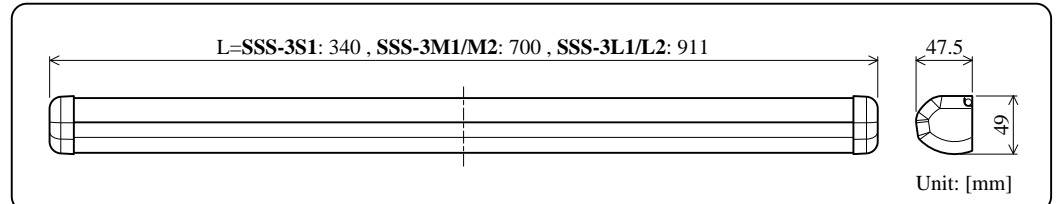
With the Filter Cover fitted confirm that the detection range is as expected and conforms with local regulations.



10 Technical Data

MODEL	Safety Sensor for Swing Doors SSS-3S1 SSS-3M1 SSS-3M2 SSS-3L1 SSS-3L2		
TECHNOLOGY	COMPLETE STATIONARY DETECTION with PSD DISTANCE MEASUREMENT		
POWER SUPPLY	AC/DC 12~24[V] ±10%	RESPONSE SPEED	LESS THAN 50 [mSec]
CURRENT CONSUMPTION	60 [mA] @ DC12[V] 35 [mA] @ DC24[V] 1.3 [VA] @ AC12 [V] 1.7 [VA] @ AC24[V] (per each PCB unit)	OUTPUT HOLD TIME	0.5, 2 [Sec]
		DIP SW FUNCTIONS	RELAY HOLD TIME : 1 [BIT] OPTICAL INTERFERENCE : 1 [BIT] RELAY OUTPUT MODE : 1 [BIT]
RELAY OUTPUT	DC 50V 0.1 [A] NON VOLTAGE 1C	MOUNTING HEIGHT	2.6 [m] Max
DETECTION RANGE	0 - 2.5 [m] Max	OPERATING TEMPERATURE	-20 ~ +60 [°C]
RANGE ADJUSTMENT	1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5 [m]	WEIGHT	SSS-3S1 : 350[g] APPROX. SSS-3M1 : 600[g] APPROX. SSS-3M2 : 700[g] APPROX. SSS-3L1 : 700[g] APPROX. SSS-3L2 : 850[g] APPROX.
BEAM ANGLE ADJUSTMENT	5, 10, 15, 20, 25 [degrees]		

11 Dimensions



<Disclaimer> The manufacturer cannot be held responsible for below.

- Misinterpretation of the installation instructions, miss connection, negligence, sensor modification and inappropriate installation.
- Damage caused by inappropriate transportation.
- Accidents or damages caused by fire, pollution, abnormal voltage, earthquake, thunderstorm, wind, floods and other acts of providence.
- Losses of business profits, business interruptions, business information losses and other financial losses caused by using the sensor or malfunction of the sensor.
- Amount of compensation beyond selling price in all cases.



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