

Operation Instruction

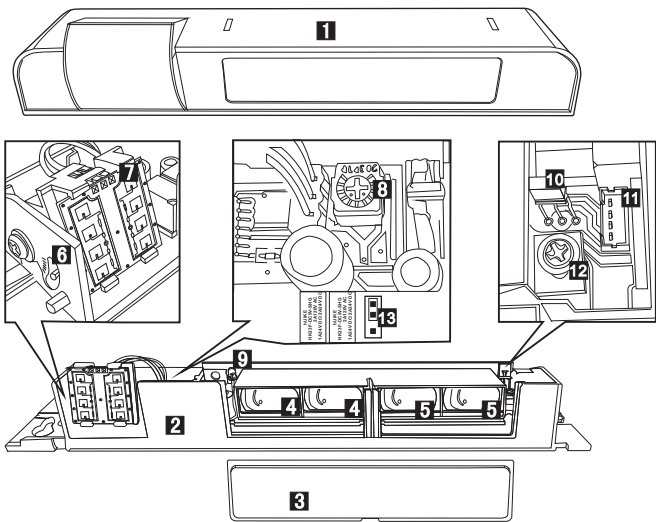
M-235 Combined Radar Activation and Infrared Safety Sensor



1 Safety Instruction

! Thank you for your purchasing, please refer to the following details before using.

2 Product Overview

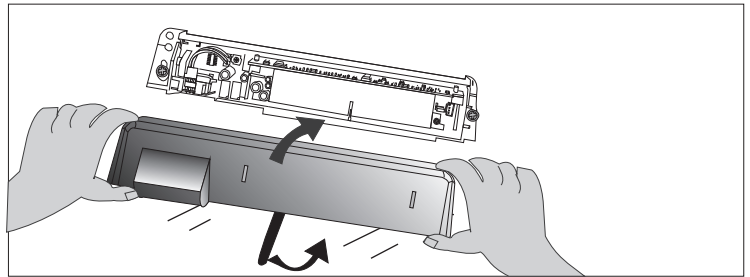
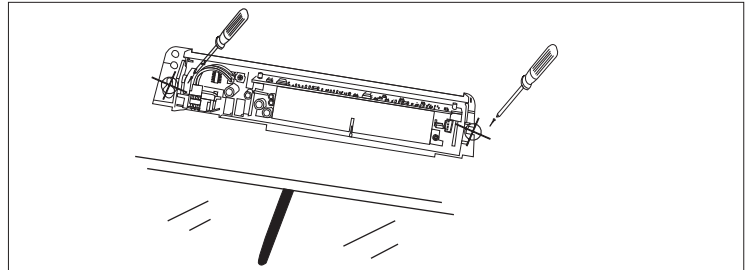
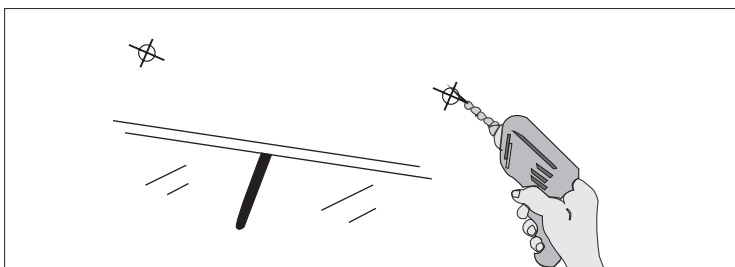


- 1** Top Cover **6** Radar Tilt Angle Indication **11** Main Connector
- 2** Bottom Cover **7** Radar Module **12** IR Adjustment Screw
- 3** IR Prism **8** Radar Sensitivity Screw **13** NO/NC selector
- 4** Transmitter **9** Activation Indicator
- 5** Receiver **10** Safety Indicator

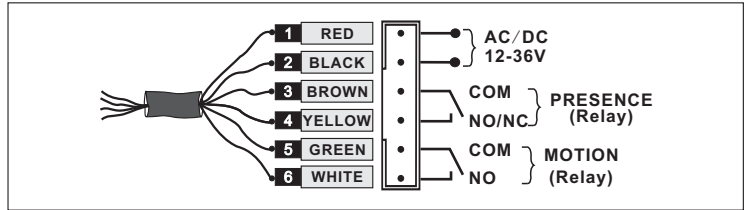
3 Characteristics

- Combined radar activation and Infrared safety sensor is used for automatic sliding door, folding door and Curve door. Radar technology is for door activation. Infrared technology is for door safety entrance.
- Have function of background self-learn. Can learn background automatically when power on. Suit all kinds of occasions. Always self-correcting once be influenced by quake, distortion, move, dark and sunshine. Ensure the sensor can work durable.
- Microwave technology adopts the Germany Microwave sensor module, ignore the influence by temperature and humidity with reliable working performance.

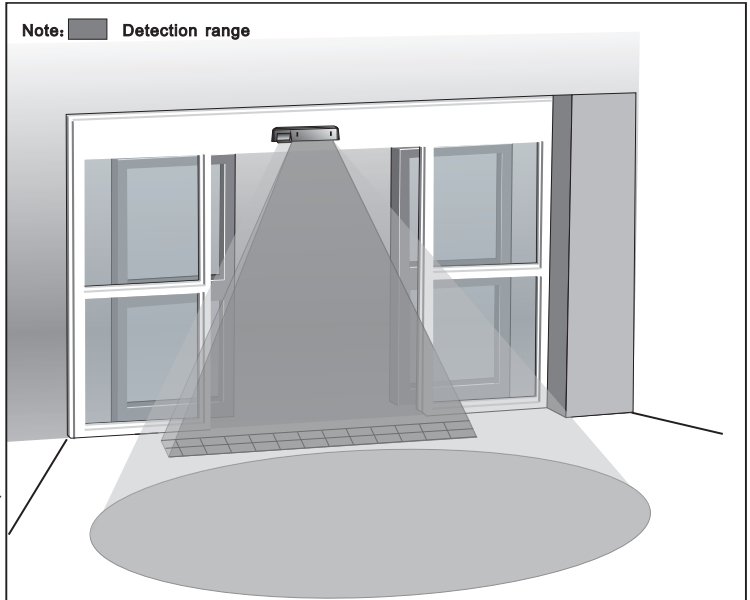
4 Installation



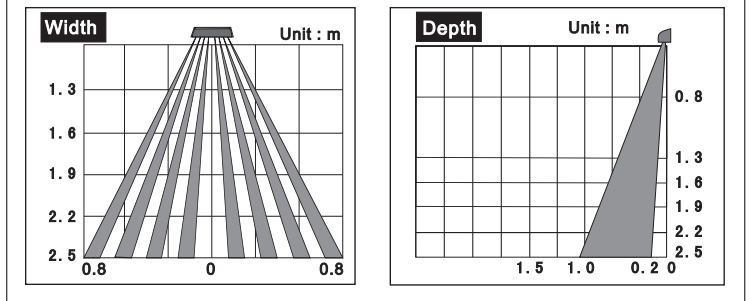
5 Wiring Diagram



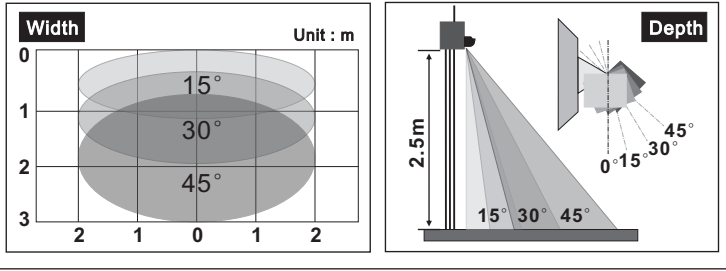
6 Activation and Safety Detection Range



Infrared Safety Sensing Field: Width & Depth



Radar Activation Sensing Field: Width & Depth:



7 Adjustment for Microwave sensitivity and Infrared Detection Range.

Microwave Sensitivity Adjustment

NOTE: High Sensitivity by clockwise rotation, Low Sensitivity by contrarotating.

Infrared Detection range adjustment

Detection range towards inside by clockwise rotation.
Detection range towards outside by counterclockwise rotation

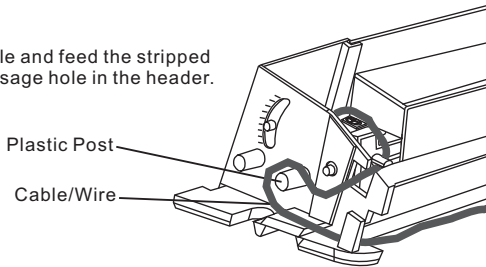
8 Note

Please install the sensor should be $\leq 100\text{mm}$ from header to avoid the weakness of sensitivity

Cable Routing

1. Locate the enclosed cable and feed the stripped end through the wire passage hole in the header.

Note: Observe proper routing of the cables as shown. This is to divert rainwater if water should run down the cable. Proper routing of the wire also provides easier installation of the cover.



Note : Infrared Safety Detection Range

Please ensure the detection area should be clear during the sensor self-learning process.

Note : Infrared Safety Detection Range

The door will open when a object put within the detection area. (as picture showed)

After 18s with no other objects or people enter in, the sensor will regard that object as a part of background and will not open the door.

Remove Objects, system will output 2S door open signal and return to original background.

9 Parameter

Power Input:	AC/DC 12 to 30V (-/+10%)
Cable Length :	2.5m
Protection:	Ip54
Signal Output	Relay
Max Installation Height:	2500mm
Static Current:	65mA
Action Current:	130mA
Dimension:	260.3 (L) × 53.4 (W) × 44 (H) mm
Cover:	ABS

Infrared Safety:

RAY TYPE	Reflect infrared
Ray Source :	Infrared940nm
QUANTITY OF RAY	8 emit rays and 8 receive rays
Self-learning time:	10s
Operation Indicate:	Standy by Blue LED, Action by Red LED
Temperature:	-40°C to 60°C
Detection Range:	1600 (W) × 800 (D) mm
Output time:	500ms
Respond:	≤100ms
Optical surface:	PMMA

Microwave Activation:

Technology:	Microwave processor
Frequency:	24.125GHz
Emission Power:	<20dBm EIRP
Transmission frequency density	<5mW/cm ²
Detection Mode:	Movement
Detection Range:	4m (W) × 2m (D)
Output time :	0.5S
Temperature :	-20°C to +55°C