

# Dakshiya Enterprises

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**MHE COLLISION AVOIDANCE**

# Dakshiya Enterprises

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## Introduction

Commercial vehicles in mining, quarrying, agriculture and construction area are big or even large, large vehicles with large blind zone, especially when the drivers' seats are in high level. In harsh environment, such as thick dust or darkness, it's more dangerous.



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In order to reduce environmental affection and blind zone, The 77Ghz microwave radar technology, remind the drivers by visible and audible warning. It helps drivers to reduce accident caused by blind zone.



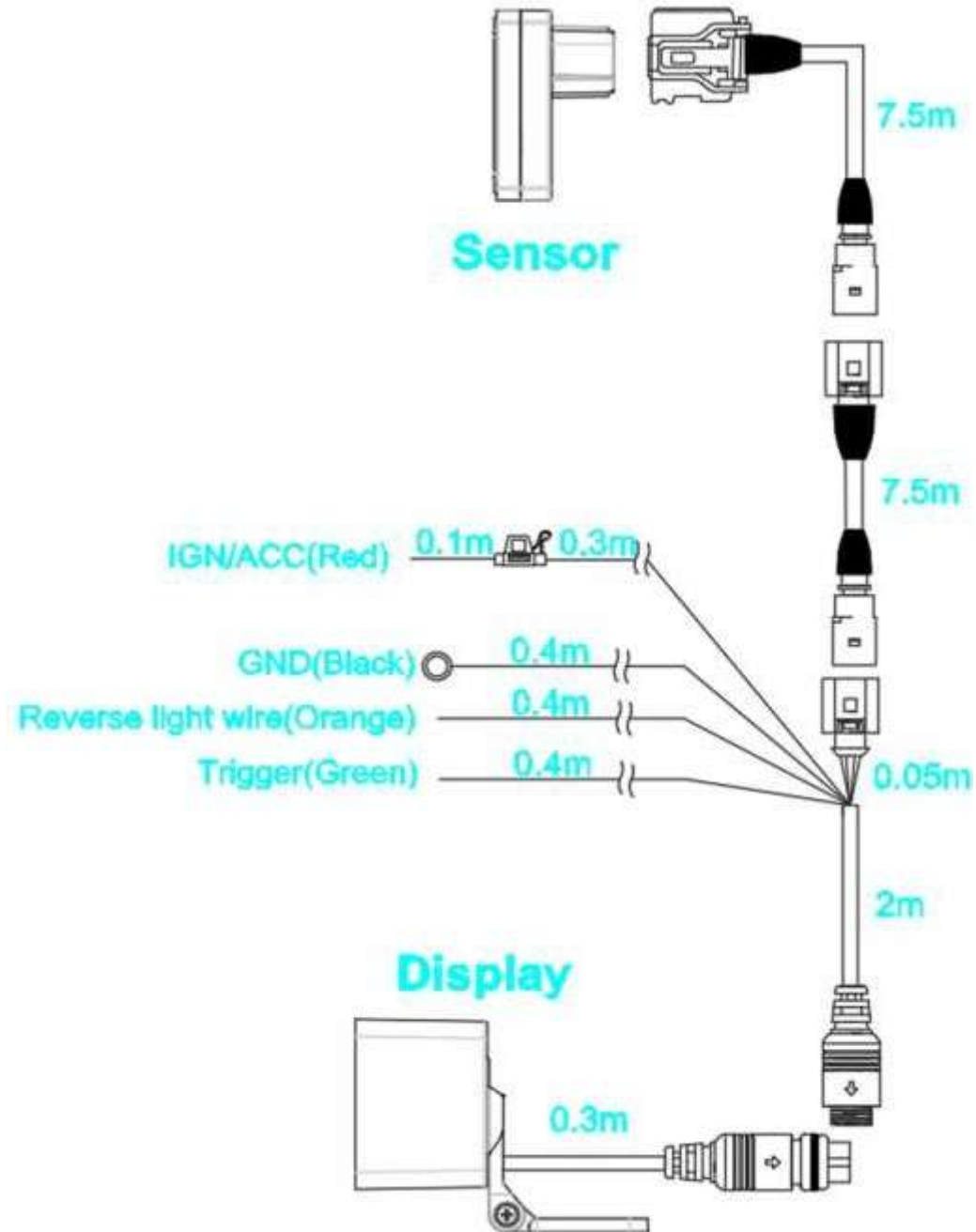
# 2.Parts list

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No.	Part name	Qty
1	Microwave sensor	1 pc
2	LED Display	1 pc
3	Harness	1 set
4	Sensor installation bracket	1 pc

# 3. Wiring diagram

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# 4. Installation

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**Microwave  
Sensor**

**Display**



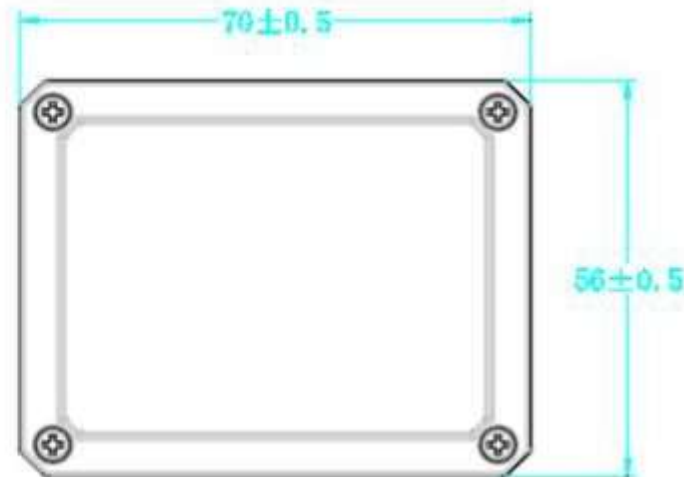
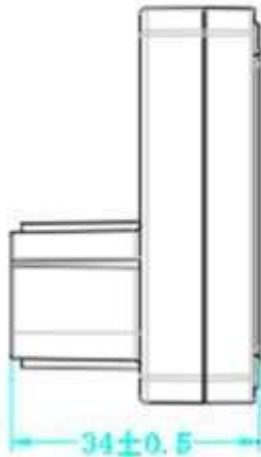
**Adjust the  
installation angle  
according to  
different  
installation height**



# 5.Parts: sensor

Appearance and size---77G Microwave sensor

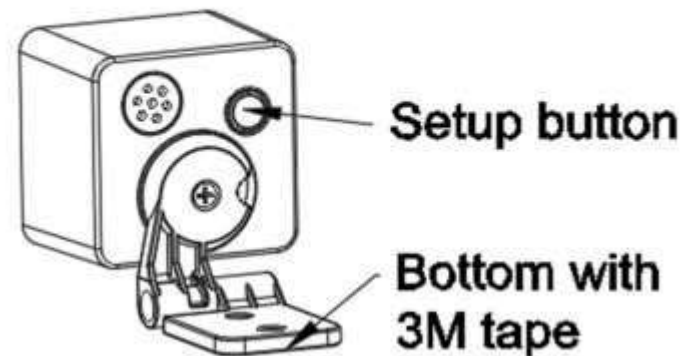
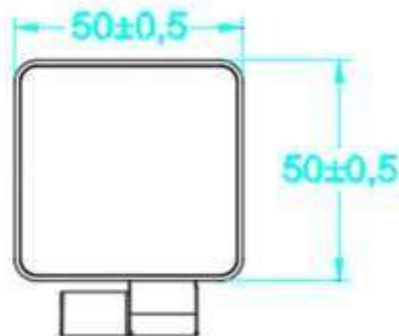
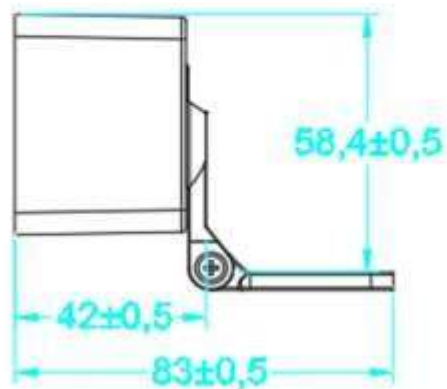
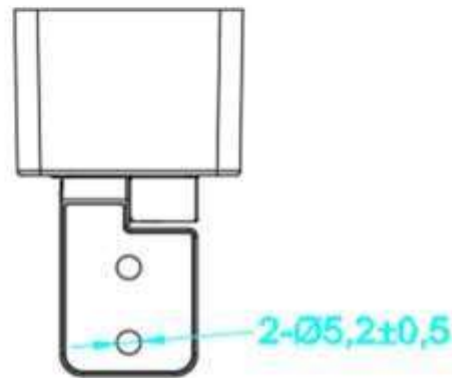
Unit:mm



# 5.Parts: display

Appearance and size----display

Unit:mm

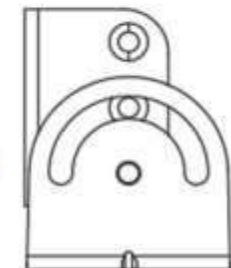
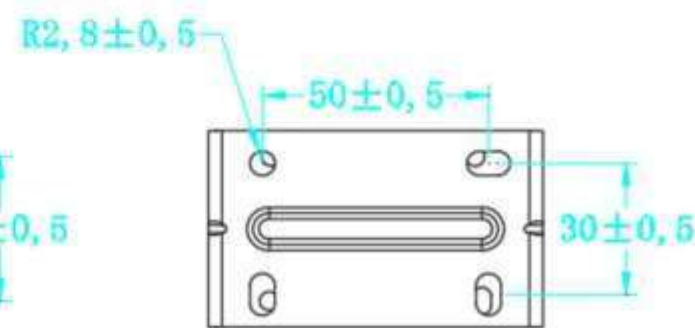
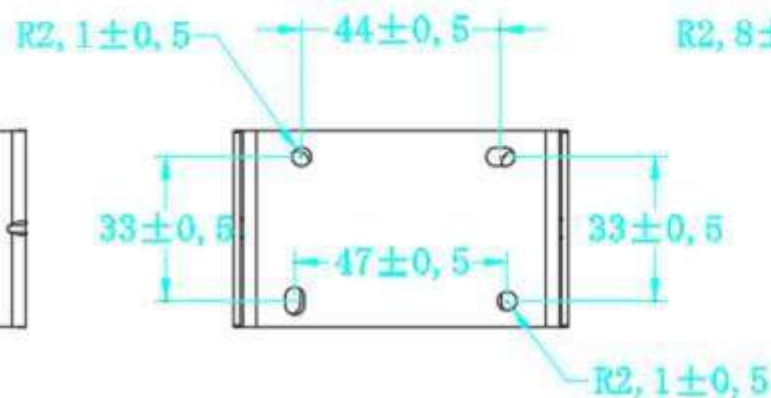
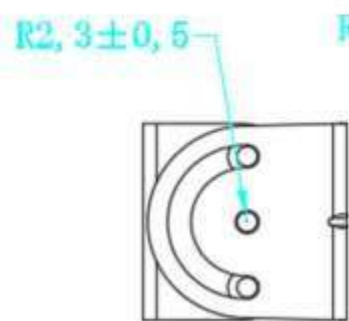
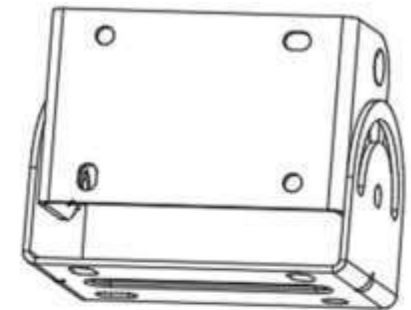
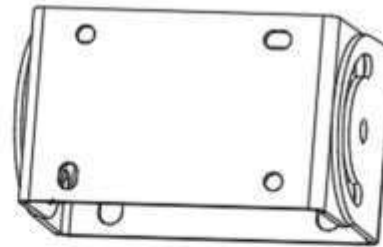
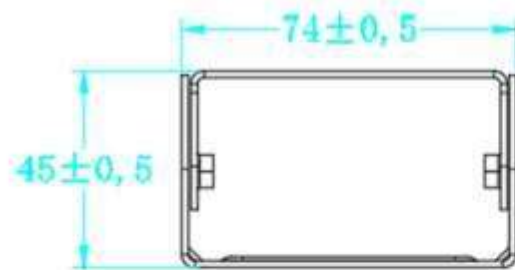




# 5.Parts: bracket

Appearance and size--- bracket

Unit:mm



# 6.Specification

## Microwave sensor

ITEM	Parameter	ITEM	Parameter
Rated working voltage (V)	12V OR 24V	Horizontal angle ( ° )	110 @ -3dB
Operating voltage range (V)	9-36V	Vertical angle ( ° )	30 @ -3dB
Working current	< 200mA	Angle accuracy ( ° )	±0.5 @ 40°
Operating temperature range (°C)	-40 ~ 80	Angular resolution ( ° )	15
Storage temperature range (°C)	-40 ~ 85	Speed Accuracy ( km/h )	0.5
Working frequency (GHz)	76-77	Detectability ( m )	10
Transmit power (dBm)	12	Distance Accuracy ( m )	±0.02
Modulation mode	FMCW	Distance Resolution ( m )	0.04
Antenna form	2TX , 4RX	Waterproof grade	IP69K
Traceable target number <sub>MAX</sub>	31		

# 6. Specification

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## Display



ITEM	Parameter
Rated working voltage ( V )	12V
Operating voltage range ( V )	9-16V
Working current	< 300mA@12V
Operating temperature range ( °C )	-40 ~ 80
Storage temperature range ( °C )	-40 ~ 85
Volume	≥80dB@12V/10cm

# 7. Function

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## Self-diagnosis






When the system IGN is on and the reverse gear is engaged in, the system starts self-diagnosis, the result showed as below :

No.	Self-diagnosis result	LED bar	Buzzer built-in
1	Pass		Beep once
2	Fail		Beep twice

# 7.Function

## Basic function:

After self-diagnosis, the object distance information will be showed on the display, the information as below.

Item No.	Object distance	Distance showing	Color bar showing	Beep frequency
1	No detection	--	No. showing	No beep
2	8.1 - 10.0m	8.1-10.0	Green LED bar 	1Hz-8Hz Stepless warning beep
3	6.1 - 8.0m	6.1 - 8.0	Yellowish green LED bar 	
4	4.1 - 6.0m	4.1 - 6.0	Yellow LED bar 	
5	2.1 - 4.0m	2.1 - 4.0	Orange LED bar 	
6	1.26-2.0m	1.26-2.0	Red LED bar 	
7	≤1.25m	-P-		

**Note: The warning sections showed above when the detection distance was set to 10m.**

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**THANK YOU!**