

SAFEPASS 5GF DETECTOR USER MANUAL v2 (0221)



INTRODUCTION

Providing pedestrian and vehicle safety in car parks is essential, in the past inground loop detectors and safety beams mounted on the boom gate were used to prevent accidents. Both of these devices require a substantial amount of time consuming labour to install them. The 5GF microwave detector replaces both of these devices, offers a superior detection area and is less costly.

1. PRODUCT SPECIFICATIONS



Fig.1 5GF detector with cable

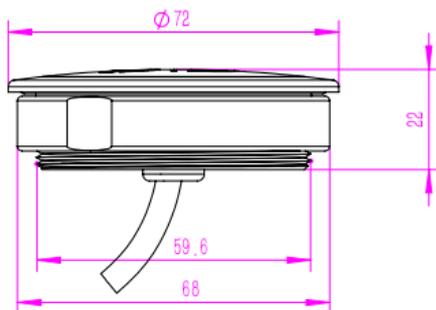


Fig.2 5GF Detector



Fig.3 5GF Programmer

5GF Dimensions



Product Features

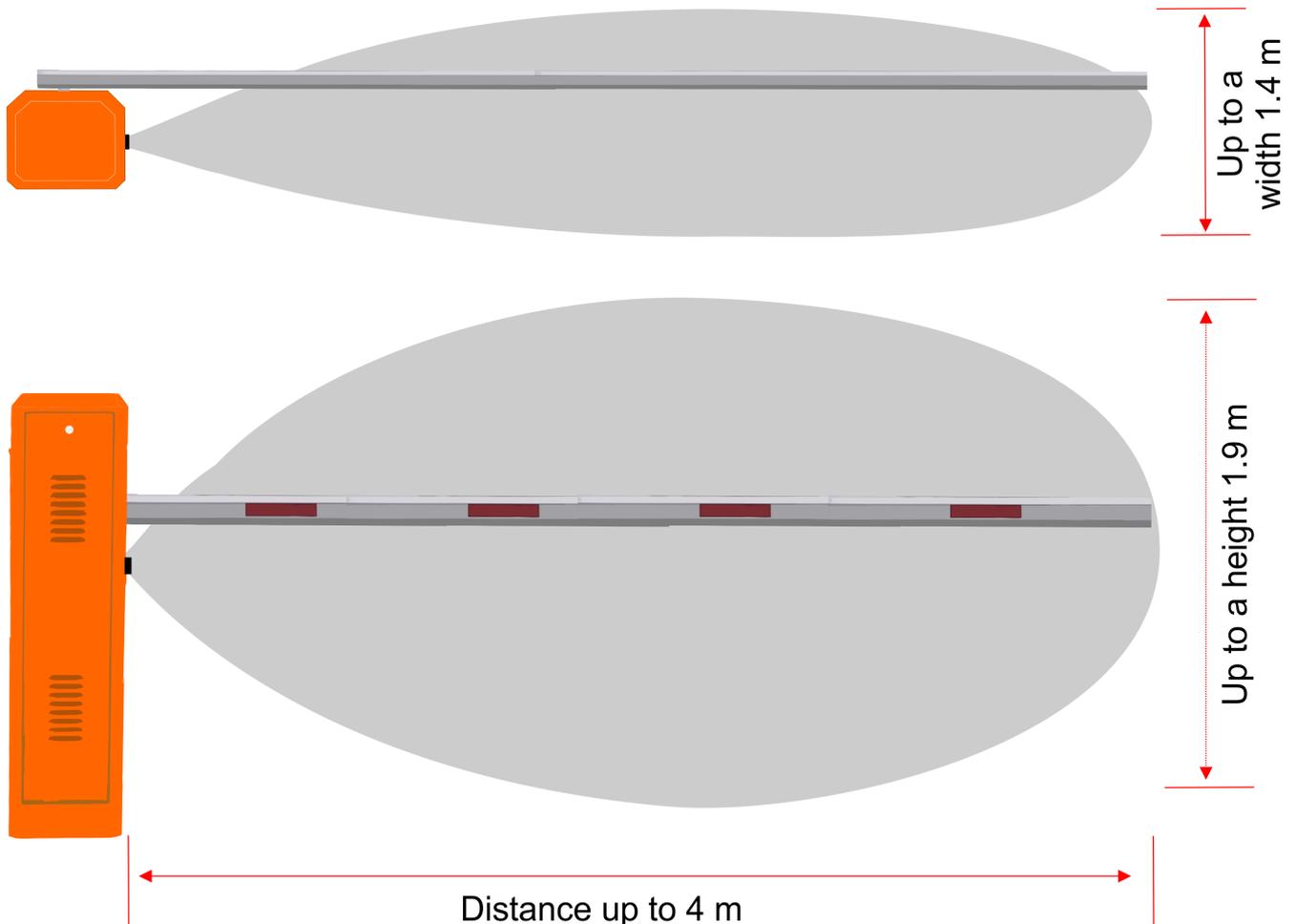
1. The housing is made from ABS material and is waterproof to IP67
2. Detection is achieved using ISM 5.8GHz band and advanced MMIC transceiver, this ensures a stable performance and high reliability.
3. The 5GF detectors can distinguish between people and vehicles.
4. The programmer module allows simple and fast, programming without the need for a computer.

Technical Specifications

Specification	5GF Detector
Construction Material	Black ABS Material
Size	72mm x 22mm
Installation location	600 mm to 700 mm from ground
Working frequency band	5.8GHz
Temperature	-20°C ~ 70°C
Humidity	95% no condensation
Voltage	DC12V
Current	≤0.15A
Power Consumption	≤1.8W
Detection distance	20mm~4000mm
Detections	Vehicle, people
Response time	150ms

Detection Range

When the 5GF Detector is installed at a height of 700 mm from the ground the detection distance from the boom gate will be 4 metres. The detection width will be 1.4 metres, that is 700 mm either side of the pole if the detector is mounted directly under the pole and the detection height will be 1.9 metres from the ground. The sensor ignores the pole movement, only detecting vehicles and people



2. WIRING INSTRUCTIONS

Wiring color	Output	Connection	Note
Yellow	Output switch -	12v-	5G detector output signal n/o Pedestrian
Brown	Output switch +	12V+	
Green	Output switch -	12v-	5G detector output signal n/o Vehicle
Blue	Output switch +	12V+	
Orange	Not Used		
Black	GND	12vdc -	Power supply
Red	12V+	12vdc +	
White	UART TX	5G detector Programmer connections	
Grey	UART RX		
Black	GND		
Red	12V+		

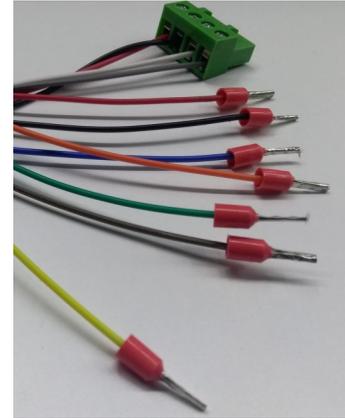
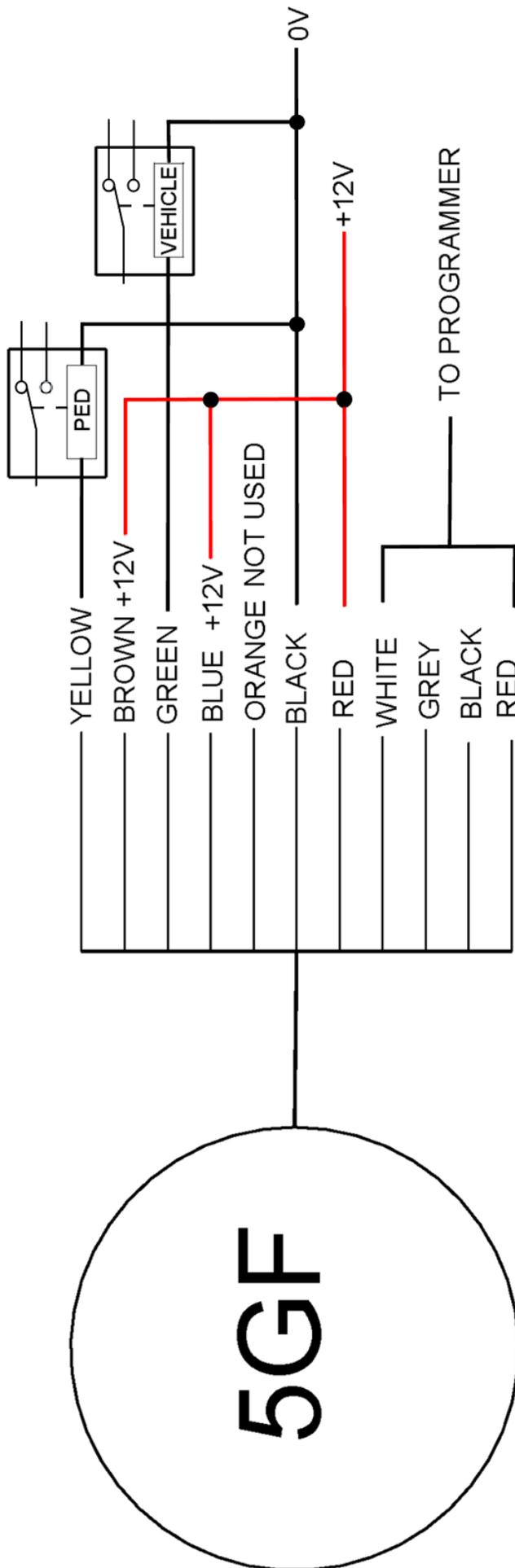


Fig.4 5GF Terminals



Wiring Diagram



3. INSTALLATION INSTRUCTIONS

Mounting Detector

The normal installation height from the roadway is 600 mm - 700 mm, the ideal height is 700 mm as this gives the best coverage. Under no circumstances exceed 800 mm from the ground as low profile sports cars may not be detected.

The maximum detection distance of 5GF detector is 4 meters. It is recommended that you set the detection distance 100mm less than the lane width to avoid interference from pedestrians or other vehicles in adjacent lanes.

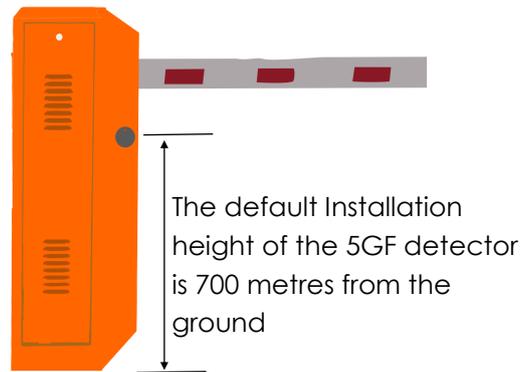
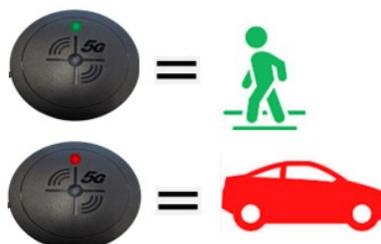


Fig.5 Detector Installation Diagram

SETTING UP DETECTOR

1. Before you power up the detector please ensure there are no objects in the 5GF detection area. If there are vehicles, people, toolboxes or bollards within the area that you need to protect the detector will not set up correctly.
2. When the 5GF detector is connected to the **12vdc supply**, the green light will flicker.
3. The LCD display will then show a number 3, this shows that the detector is set for a distance of 3 metres. PRESS CH BUTTON
4. The distance can be adjusted by pressing the CH button then the increase or decrease buttons, the increments are shown as 0.1 of a metre (100 mm)
5. When you have checked that the distance is correct PRESS THE ENTER BUTTON. The detector is now set.
6. When a person enters the detection area, the green LED of 5GF detector will be on. When the person leaves the detection area, the green light of 5GF detector goes off, and the boom gate closes.
7. When a vehicle enters the detection area, first the green LED switches on then the red LED turns on. After the vehicle leaves the detection area, the red LED goes off and the boom gate closes.



Detection Indication Lights