

Ultrasonic Rangefinder

UM0090

■ Features

- Compact design for easy installation
- Measuring range up to 3M
- Excellent anti-interference ability
- Can detect objects of various colors, shapes and materials



■ Introduction

The UM0090 module is based on an ultrasonic sensor that combines transmitter and receiver in a single unit. By measuring the time of flight of ultrasonic wave, it can detect any object within 3 meters and output distance signals via UART interface.

This product features high sensitivity, fast response, and excellent anti-interference ability and stability. It is widely applied in object avoidance systems on robots, drones, and other smart devices.

■ Applications

- Robots
- Smart streetlight
- Smart trash bin
- Autonomous delivery vehicle

■ **Technical Parameters**

Properties	
Measuring range	17~300cm (object: flat surface)
Frequency	58KHz
Resolution	<1cm
Response time	<1ms
Power-up delay	≤1s
Blind zone	17cm
Output Format	
Output	Measured distance via serial port (unit: cm)
Trigger mode	Low level pulse, pulse width≥50us
Rated Operating Conditions	
Working environment	indoors/outdoors
Operating temperature	-40°C ~ +80 °C
Storage temperature	-40°C ~ +85 °C
Relative humidity	≤ 95% (No condensation)
Power Supply	
Power supply voltage	DC 5V
Working current	≤10 mA

■ **Appearance & Dimensions (Unit: mm)**

