

HC-SR04 Ultrasonic Distance Sensor - Datasheet (with Dimensions)

The HC-SR04 is an ultrasonic ranging sensor designed for distance measurement. It uses sonar to determine the distance to an object with high accuracy and stability.

Electrical Specifications

Parameter	Value
Operating Voltage	5V DC
Operating Current	15 mA (typical)
Operating Frequency	40 kHz
Range	2 cm – 400 cm
Accuracy	±3 mm
Measuring Angle	≈ 15°
Trigger Input Signal	10 μs TTL pulse
Echo Output Signal	TTL pulse proportional to distance

Mechanical Dimensions

Feature	Measurement
Overall Length	45 mm
Overall Height	20 mm
Depth (including transducers)	15 mm
Transducer Diameter	16 mm
Distance Between Transducer Centers	25 mm
Mounting Hole Diameter	3 mm
Distance Between Mounting Holes	32 mm

Note: Measurements may vary slightly depending on the manufacturer.

For mechanical design, ensure proper alignment of the transducers and spacing for mounting holes. Reference models can be found in the provided datasheet links from SparkFun and MPJA.