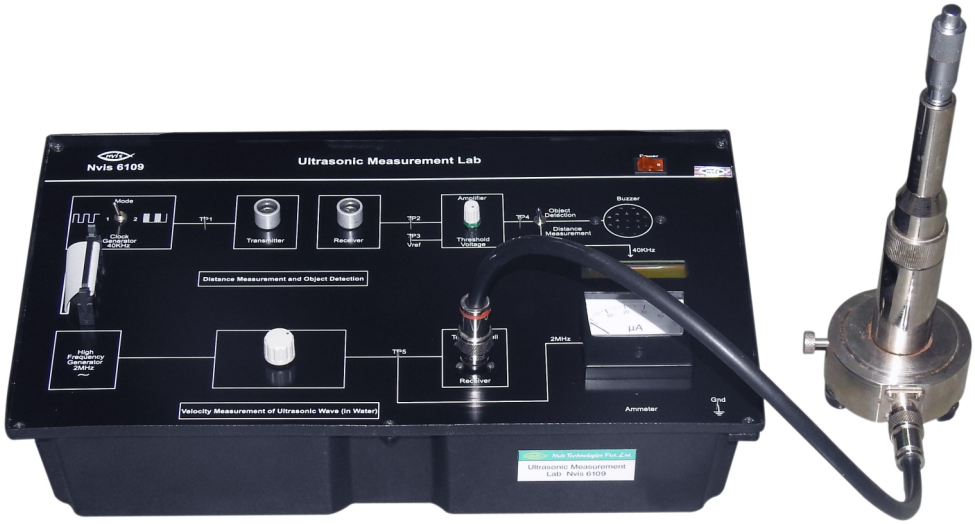
Ultrasonic Measurement Lab

Nvis 6109



Nvis 6109 Ultrasonic Measurement Lab is a very useful training system for studying the various parameters of Ultrasonic wave, like velocity and distance measurement. With the help of this setup, we can determine the Velocity of Ultrasonic wave in liquid with a high degree of accuracy.

Nvis 6109 consists of two parts a training board and a liquid cell. The training board contains Ultrasonic sensors, used for distance measurement and object detection.

Features

- Liquid Cell for Velocity Measurement
- Microcontroller based LCD
- Ultrasonic Transducers as a Distance Meter
- Ultrasonic Transducers as a Object Detector
- Precise Signal Conditioning
- Self-contained and easy to operate

Scope of Learning

- Study of Characteristic of Ultrasound
- Measurement of the Distance using Ultrasonic Sensors
- Study of Object Detection using Ultrasonic Sensors
- Determination of the Velocity of Ultrasonic Waves in a non-electrolytic Liquid by Ultrasonic Interferometer
- Determination of the Compressibility of a non-electrolytic Liquid

Technical Specifications

Ultrasonic Interferometer

Quartz Crystal

Diameter	: 20 /14 mm
Thickness	: 1.4 mm
Frequency	: 2 MHz

Liquid Cell

Optimum Quantity of Liquid	: 12 cm^3
Max. Displacement	: 25 mm of the Reflector
Least Count of Micrometer	: 0.01 mm

Distance Measurement :

Ultrasonic Transducer	: 28 cm to 1.0 m (approximate)
Clock Generator	: 40kHz
Amplifier	: 60dB
Threshold Detector	: 0 to 9V DC
Buzzer Indicator	: 1.5 - 15V DC
Mains Supply	: 230V ±10%, 50Hz
Fuse	: 500mA
Display	: LCD

Subject to change - Version 2.0

Designed & Manufactured in India by

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