

Ultrasonic Leakage Detector



Model: RUD-2100

Applications

Used for measuring Leakage of system. Applicable to detect Leaks in refrigeration and air condition systems, Leaks in heating system, Internal leaks in steam transfers, Compressed air leaks, Tire & tube leaks, Engine seals, Electrical arcing, The bearing problems, Bake system. With the Ultrasonic transmitter, it is applicable to Air leaks around door & window gaskets & seals, Water leaks in roofs, Conduit & pipe identification, Door & trunk seals, Windshield leaks.

Theory Of Ultrasonic Gas Leakage Detection

Human ear can hear sound frequency up to 18 KHz. The sound frequency above 20 KHz is categorized as ultrasonic sound which is not audible.

Ultrasonic sound is very directional in nature. We can utilize this nature to pinpoint the exact origin of the sound source where the leak is located.

Physics tells us that the gas always flows from the higher pressure region to the lower one. When the pressure difference is only a small opening, the turbulence created by the gas through the small hole then generates ultrasonic sound.

In the non pressurized state, the ultrasonic transmitter is applicable, ultrasonic wave can leak from the small hole.

Ultrasonic gas leakage detector is designed based on the above simple physics.

Features

This Ultrasonic Gas Leakage Detector is designed to locate the source of the ultrasonic emissions generated by gas or air leaks. The leakage level is displayed by "LED Display Panel", and is covered to audible sound by either internal buzzer or to external optional earphone.

Specifications

Leakage Sensitivity Indicator	LED display panel & audible tone. (LED display is a relative measurement only. Audible tone is the frequency of the received ultrasonic sound divided by 32.)
Frequency Response	20 KHz to 100 KHz.
Power Supply	4x1.5 AAA(UM-4) battery
Power Consumption	Approx. DC 25 mA.
Operating Temperature	0 to 50 °C (32 to 122 °F).
Operating Humidity	Max. 80% RH.
Weight	Approx. 140 g/0.31 lb (including battery).
Size	HWD 236 x 63 x 26 mm (9.3 x 2.5 x 1.0 inch)