

A FEW PRACTICAL BENEFITS:

Development, design, production:
100 % Trotec

Simple detection of even
the smallest leaks

Pinpoint leak detection with powerful
sound transducer technology

Cost-effective leak detection at com-
pressed-air lines as well as at
steam, gas and vacuum systems,
boilers, liquid-bearing lines, valves,
slides, steam traps

Reliable early detection of damages
at slide and roller bearings
or other sounds indicating wear

Airborne and structure-borne
sound probe for various tasks

Safe detection even in noisy
surroundings thanks to high-quality,
soundproof headphones

Easy handling

Ultrasound measuring instrument SL800

Professional ultrasonic detector set for the quick and inexpensive leak detection, wear diagnosis or tightness test



Fully equipped with headphones in a carrying case



Detecting compressed air leaks quickly and economically



With this ultrasonic detector set you can locate leakages in compressed-air supply networks, plant systems and at concealed pipe lines quickly and without contact even from a distance of several metres.

In case of leaking gas even a tiny point of leakage in the compressed-air line is sufficient and leads to increased friction, generating a sound inaudible for humans in the ultrasonic frequency range.

Wear abrasion at movable machine parts becomes noticeable in the same way.

These sound vibrations caused by flow friction are received by the probe of the SL800R and transformed into audible sound by way of high-performance transducer technology, which can then be played over sound-

proof headphones and additionally displayed as indicator value via a 10-piece LED bar graph.

The combined visual and audible detection with adjustable headphone volume permits focussed working even in poor lighting conditions and noisy surroundings.

For testing the tightness of pressureless systems such as tanks, containers or climatic chambers and ventilation systems, these can be subjected to ultrasound using the SL800T transmitter which is also included in the set.



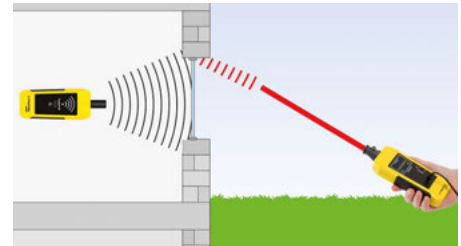
SL800: Effective leak detection and tightness tests using ultrasound



Signs of wear at pumps and other processing machines can be detected at an early stage using the structure-borne sound probe.



Combined with the ultrasonic transmitter SL800T, tightness tests of e.g. fire doors can be performed quickly and at low cost.



Quick tightness tests at parts of a building or other sealing components

For tightness tests at regular doors and fire doors or windows the ultrasonic transmitter SL800T can simply be installed behind the test object. Ultrasound emerging in front of the object then indicates the point of leakage.

This variety of potential applications is made possible by ultrasonic detection using the SL800:

SL800R with structure-borne sound probe

- Early detection of wear at ball, roller or slide bearings
- Checking centrifugal pumps for cavitation
- Tightness tests of fittings
- Continuity testing or functional check of steam traps

This probe utilizes structure-borne sound as bearer of inner states and processes. Hence, the device combination works like an electronic stethoscope.

SL800R with airborne sound probe

- Leak detection at exposed lines and pipes
- Proving the leakage-related loss at gas-filled supply networks also during operation
- Leak detection at high-pressure steam installations
- Localization of cracks, poor weld seams or worn flange connections
- Leak detection at all accessible fittings and connecting elements where processes take place in a vacuum or at high pressure

SL800R with airborne sound probe and ultrasonic transmitter SL800T

- Tightness testing to determine the cause of energetic defects, e.g. at doors or windows
- Checking containers, housings or climatic chambers for tightness
- Subjecting tanks or containers to ultrasound so as to test sealing components

Model calculation for leakage losses in compressed air systems

Large amounts of air permanently stream out at high speed even through the tiniest leaks in compressed-air systems, resulting in considerably higher operating costs:

Leak dimensions	Escaping air volume at 8 bar	Loss of energy**
[ø mm]	[l/min]	[l/annum]* [kWh/a]
1	75	39,420,000 5,125
2	260	136,656,000 17,765
3	600	315,360,000 40,997
4	1,100	578,160,000 75,161

* if operated 24 hours a day throughout the year.

** owing to the additionally required motor power (0.13 kW per m³ of compressed air) for a higher volume flow to compensate the pressure loss.

Complete set with exchangeable probes and ultrasonic transmitter



Scope of delivery:

- 1 Receiver SL800R (Article no. 3.510.002.001)
 - 2 Transmitter SL800T (Article no. 3.510.002.010)
 - 3 Airborne sound probe for SL800R
 - 4 Structure-borne sound probe for SL800R
 - 5 Soundproof headphones with volume control
 - 6 Transport case
- Two batteries and quick guide

Technical data	SL800 ultrasonic detector set
Article number	3.510.002.000
Signal input connection	Airborne sound probe, structure-borne sound probe
Display of the ultrasonic intensity	LED bar graph, 10 levels
Acoustic rendition	Soundproof headphones, high attenuation of ambient sounds
Frequency range	36 kHz to 44 kHz
Power supply	9 V IEC 6F22
Operating conditions	0 to 40 °C, < 75 % RH
Dimensions (L x W x H)	197 x 73 x 33 mm (SL800R) / 203 x 73 x 33 mm (SL800T)
Weight (incl. battery, without probes)	180 g (SL800R), 160 g (SL800T)