



LD 300 leak detector

If gases escape through leaks ultrasonic noises are generated. By means of the LD 300 leakages can be detected in the ultrasonic range even from distances of several meters. LD 300 transforms the inaudible signals into a frequency which can be identified by means of the provided sound-proof headset. In depressurized systems an ultrasonic tone generator can be used of which the signal travels through smallest openings.



Sound-proof headset enables leak detection in extremely noisy environments



Focus tube with focus tip avoids influence by ambient noise and enables precise locating of leakages

Annual energy costs caused by leakages

Hole Ø (mm)	Loss in air (l/s)		Energy loss (kW/h)		Costs p.a. (€)	
	at 6 bar	at 12 bar	at 6 bar	at 12 bar	at 6 bar	at 12 bar
1	1.2	1.8	0.3	1.0	144	480
3	11.1	20.8	3.1	12.7	1.488	6.096
5	30.9	58.5	8.3	33.7	3.984	16.176
10	123.8	235.2	33.0	132.0	15.840	63.360

Source: www.druckluft.effizient.de

(*) kW x 0.06 € x 8.000 Bh/a

Applications:

Leak detection in:

- Compressed air lines, gas, vapour and vacuum plants
- Refrigerating plants
- Door seals



Holding device of LD 300 at the telescope bar

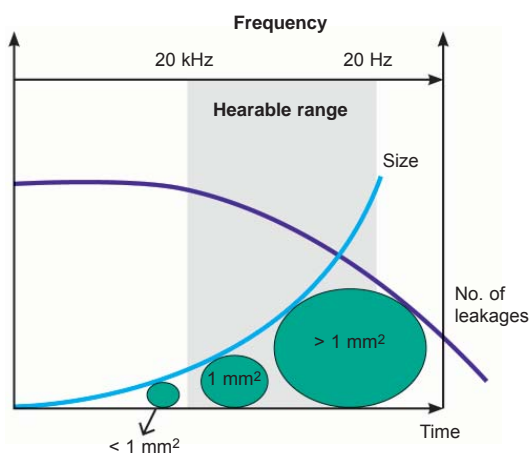
The **telescope bar** helps locating leakages in pipelines up to a height of 6 m



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Cost saving

In Germany 60,000 compressed air plants use 14,000,000,000 kWh electrical energy per year. 15 to 20 % could be easily saved (Peter Radgen, Fraunhofer Institut, Karlsruhe). Most of these costs are caused by leakages in the compressed air system. The air "escapes" unused. **1 leak with a diameter of 1 mm = 270 EUR/year. The LD 300 will be payed off after 4 leakages.**



- hole size increases over time
- the human ear can only hear leakages which are bigger than 1 mm² at 7 bar
- until they are noticed 10 small leaks may cause a loss of 7,000 Euro/year



Description	Order no.
Set LD 300 leak detector consisting of:	0601 0103
LD 300 leak detector	0560 0102
Ultrasonic sensor	0605 0001
Sound-proof headset	0554 0102
Focus tube with focus tip	0530 0101
Cable for ultrasonic sensor	0553 0101
Battery charger	0554 0001
Transport case	0554 0101
Accessories, not included in the set:	
Ultrasonic tone generator	0554 0103
Telescope bar 3 x 120 cm	0530 0102



The integrated laser facilitates the detection of leaks.

Technical data LD 300

Working frequency:	40 kHz ± 2 kHz
Connections:	1) 4-pole connection for headset and battery charger 2) 3.5 mm stereo socket for sensor and cable connection
Laser:	wave length: 655...660 nm output power: 0.4...0.5 mW
Power supply:	internal NiMH rech. battery
Operating duration:	approx. 6 hours without laser, approx. 4 hours with laser
Charging time:	approx. 1.5 hours
Operating temp.:	0 to 40 °C
Storage temp.:	-10 to 50 °C
Telescope:	3 x 120 cm