

**A FEW PRACTICAL BENEFITS:**

Acoustic and trace gas leak detection in only one device

High-resolution colour graphic display with touchscreen functions

**The only one of its kind in its class.** State-of-the-art smart function for even faster pinpoint leak detection (patent filed)

Numerous preprogrammed common applications for quick access

All filters and parameters can be configured individually

Pipe detection mode

Complies with all guidelines governing according to VBG 121 (when used with original headphones) (VBG – trade association safety regulations)

Highly-sensitive, high-quality, robust precision microphone made in Germany

# LD6000 combi detector

## Leak detection and acoustic pipe location

**The only one of its kind in the world - and only at Trotec:**  
**LD6000 combi detector with smart mode for quick and reliable pinpoint leak detection**  
★ Patent filed ★



### The LD6000 cutting-edge leak detection device sets new standards in the field of leak detection ...

- **Acoustic pinpoint leak detection**
- **Pipe detection**
- **Long-term measuring with logging function**
- **Trace gas detection**
- **All in only one device!**

Whether you're planning on using it for routing pipes or for narrowing down the search for leaks or pinpointing their location, the highly-sophisticated LD6000 – which comes together with a high-quality microphone and new, cutting-edge electronic technology designed especially by us in order to fulfil the unique and special demands which state-of-the art acoustic leak detection puts on it – allows you to determine and process even the tiniest of leak sounds before displaying them on the easy-to-read, clear-cut display.

### LD6000 – the optimum solution for trade and industry and supply companies

Users in industry are able to benefit from a state-of-the art measuring device which can be used universally to not only locate and pinpoint leaks and problem areas in sprawling and winding pipe networks, but also allow them to carry out effective and low cost inspections to determine if welded seams, valves, tanks, boilers, pressure lines and pump housings are leak proof or not.

The LD6000 provides supply companies with a whole host of application possibilities that allow them to carry out full and conclusive water loss analyses:

acoustic pinpoint detection with highly-sensitive ground microphones, trace gas leak detection on drinking water networks, line detection on metallic and non-metallic pipes and leak checks on seals and pipe connections.

A comprehensive program of accessories including a ground microphone and a contact and stick microphone ensure that the LD6000 is excellently suited for use as a quick, reliable and universal means of locating leaks not in many different areas in the field of industry but also in the trade sector.

**Finally one software for basically all measuring devices:**

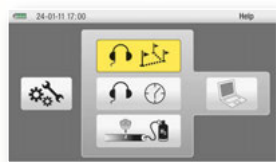
**MultiMeasure Studio Professional**

In addition to the ever growing number of fully compatible Trotec meters, this software is also suitable for the LD6000 semi-compatible combination detector – you can even benefit from this software for non-interface devices by enabling cross-device analysis and management of all measurement projects and customer data in a single application!

**Create professional measurement reports in next to no time!**

The unique report generating function of MultiMeasure Studio Professional already comes with completely formulated boilerplate texts for the fields of building diagnostics, moisture measurement, leak detection and thermography.

*More information can be found starting on catalogue page 48 ...*



*The LD6000 has been programmed to include a wide range of typical applications which can be accessed quickly and easily. It is also equipped with a variety of filter settings and additional parameters which can be adapted to suit the user's individual demands and requirements, which can be configured either via touch screen or by using the keys and buttons on the control panel.*



*Whether it's a new model you are looking for or a reconditioned one, whether you are thinking of buying or leasing – Trotec provides you the ideal solution for every demand:* Visit the **Trotec Shop** to find out more about great deals on our new products, our super special offers and our wide selection of demonstration, reconditioned and specially-priced products. For more information go to [www.trotec.com](http://www.trotec.com) or directly use the QR Code.

Whether it's for indoors or out. Or whether it's for industrial pipe or drinking water networks or for house installations. The easy-to-use LD6000 allows you to carry out quick and accurate – and therefore extremely reliable – leak detections, trace gas inspections and line routing projects using one and the same device!



**The principle of acoustic leak detection**

Water which escapes from high-pressure pipes at high speed causes friction which in turn can be picked up in the form of sound waves.

The pipes themselves start to oscillate. The sound that is generated is transmitted through the pipes and can be transformed into audible sound with a **body sound microphone** at a distant contact point (valve, hydrant, armature).

In addition the water leaking out through the crack or hole in the pipe generates sound which is carried through the ground to the surface. This sound can be picked up by a **geophone** and transformed into audible sound.

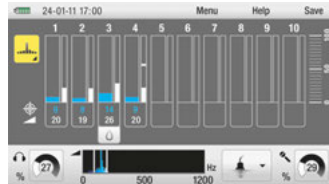
*The innovative, state-of-the-art LD6000 combi detector is suitable for a variety of different application and allows you to detect leaks using both the acoustic and trace gas method with only a single device :*

- 1 Acoustic pinpoint leak detection with geophone.
- 2 Detection and pipe laying, also for plastic pipes.
- 3 Acoustic body sound measurement.
- 4 Trace gas leak detection in drinking water systems.
- 5 Leak detection and leak tightness inspection of pipe systems in houses and industrial pipe networks.

**Overview of the functions :**

**Smart mode**

**The state-of-the-art smart function is the only one of its kind in its class and has been filed for patent – the smarter way to find leaks.**



Complex algorithmic calculations carried out in the heart of the device which are based on factors like frequency, level and assessment provide you with a clear and precise view of what you want to see: the position of a potential leak which is shown by means of a bar indicator that displays the strongest signal where the leak is. Seeing is believing! And it doesn't get any easier than that!

**Leaks that can be seen and heard – additional acoustic modes**

In addition to the smart mode, the LD6000 is also equipped with other acoustic modes which allow the user to carry out automatic or individual amplitude analyses of potential leaks.

**Long-term measurements**



In order to be able to pinpoint the leak exactly, an onboard sound logger can be activated to log measurements carried out over a period of up to 60 minutes, which can then be used to determine or rule out any leaks with the help of the recorded measurement curve.

**Pipe detection mode**

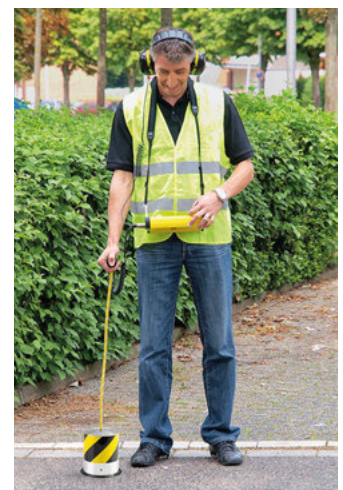
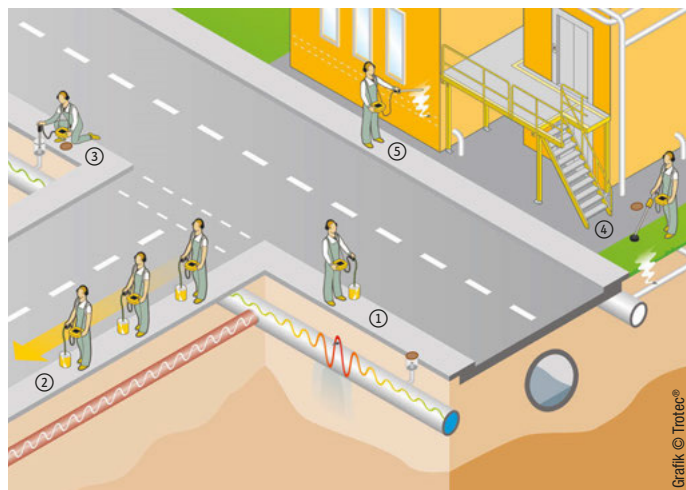
This mode is designed to allow you to locate pressure water lines made of synthetic material which are treated with ultrasound by the LD-PULS impulse generator.

*To find out more about using the LD6000 and LD-PULS for pipe detection go to page 81.*

**Trace gas detection**

Leak detection in pipe networks or house installations can be carried out quickly and reliably using trace gas in combination with hydrogen sensors.

*For more information on how to perform trace gas leak detection with the LD6000 go to page 80.*



← LD6000 – further information ...

## LD6000 H2 hydrogen sensor for trace gas detection



**For carrying out extremely accurate leak detections and low cost leak inspections of sealing sheets, lines, containers and tanks**

The LD6000 is excellently-suited for detecting leaks together with the optionally available LD6000 H2 hydrogen sensor and the formation gas type 95/5, which comprises 95% nitrogen and 5% hydrogen.

Because of its specific structure, hydrogen is able to permeate almost all materials like earth, concrete or floor tiles.

It can easily be traced and pinpointed at the surface using the LD6000 and the connected hydrogen sensor.

Forming gas 95/5 is neither toxic nor flammable. This means that it can be considered harmless and even used in sensitive environments.

In addition to the compact hand sensor there is also a ground sensor with an



integrated suction pump available which allows you to detect even the smallest concentrations of trace gas.

The ground sensor is excellently suited for carrying out leak inspections on green roofs or on pipes which are deep in the ground and which are covered with earth, asphalt etc.

### LD6000 Delivery program



#### Standard scope of delivery:

- LD6000 measuring device ①
- LD K – sound blocking headphones ②
- LD6000 BM – Universal Microphone with magnetic adapter and tripod adapter LD6000 DA ③
- LD6000 VL – stick extension with tip ④
- LD6000 TG – shoulder strap ⑤
- PC connecting cable, USB
- LD6000 carry case ⑥

#### Optionally available accessories:

- LD6000 BMW – wind protected ground microphone (with dead-man's button) ⑦  
*Article no. 3.110.008.013*
- LD6000 VK – connecting cable ⑧  
*Article no. 3.110.008.021*
- LD6000 BMW DA – tripod adapter for LD6000 BMW ground microphone ⑨  
*Article no. 3.110.008.014*
- LD6000 H2 – hydrogen hand sensor ⑩
- LD6000 H2 – hydrogen ground sensor with integrated pump ⑪
- LD6000 Transport case V ⑫



The optionally available **transport case V** with precisely fitting foam insert for the complete LD6000 program enables time-saving order and safe transport.

*Article no. 3.510.200.928*



*Standard transport case and carrying case V in comparison, each with exemplary configuration (not included).*

