



# HLD5000

## Refrigerant Leak Detector

**WE'VE CUT FALSE ALARMS,  
AND THE COST OF OWNERSHIP**

 **INFICON**  
The Instrumental Difference

# HLD5000 - No halogen leak detector is faster to use (or slower to require maintenance)

INFICON, the leader in halogen leak detectors, introduces the next-generation HLD5000.



## FEATURES AT A GLANCE

- **Fast and easy to use**
  - No more false alarms means no more time wasted looking for nonexistent leaks.
  - The acoustic alarm changes pitch as the leak rate changes, so leaks can be pinpointed quickly. A lamp in the hand piece provides additional confirmation.
  - Calibration is fast and automatic.
  - Ergonomic hand piece design minimizes fatigue.
- **Lower cost of ownership**

The entire HLD5000 has been designed to minimize cost of ownership.
- **Superior stability**

The differential detection technique plus the non-consumable sensor components deliver stability previously unknown in this class of leak detectors.
- **Durable for longer life**

Unique infrared absorption sensor does not wear out.
- **Easy programming**

Rejection level, loudness, calibration intervals and other parameters can be easily programmed using the eight front-panel "softkeys.", just like on ATMs.

Building on the success of the HLD4000, the HLD5000 uses an innovative new design to find leaks quickly and reliably with dramatically fewer false alarms. We've also reduced the cost of ownership by substantially extending the sensor life, improving the lifetime of all mechanical and electronic parts, and minimizing the number of consumables and their cost. Numerous other features enhance the unit's convenience, reliability and durability.

- **Versions for many refrigerants**

To further ensure that the HLD5000 reliably detects the leaks you want it to detect while ignoring everything else, each unit is tuned to a specific refrigerant. Versions are available for R134a, R22, R404A, R407C, and R410A. Conversion kits allow users to convert their HLD5000 to a different version.

- **Automatic standby function**

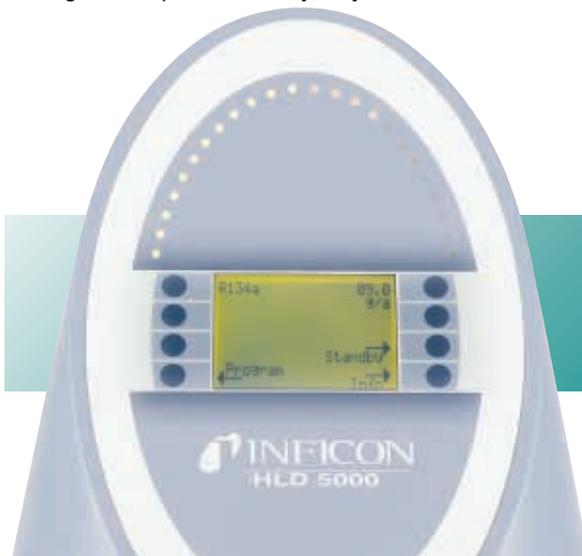
If the hand piece is idle for longer than a preset time, the unit turns off the pump and valve to reduce wear and filter contamination. Operation automatically resumes as soon as the operator picks up the hand piece.

- **Internal calibrated leak**

Built-in internal leak contains unique circuitry to compensate the leak rate for temperature changes to ensure accurate calibration and also monitors the lifetime of the cal leak and provides warning when it needs to be replaced.

- **Easy to move and install**

At 10 lbs (4.5 kg), the HLD5000 can be easily moved using the handle that's ergonomically integrated into the housing. It operates in all orientations and can be securely mounted to a bench or wall to save space in narrow test booths.



# Higher reliability. Lower cost of ownership.

## THE HLD5000 COSTS LESS TO OWN

There's more to the cost of owning a leak detector than just the purchase price. To lower the total cost of ownership, the HLD5000 uses an infrared absorption sensor that has no consumable parts. In fact, we guarantee the sensor will last at least one year.

The few components that are consumable, such as the leak standard, are inexpensive and easy to replace.

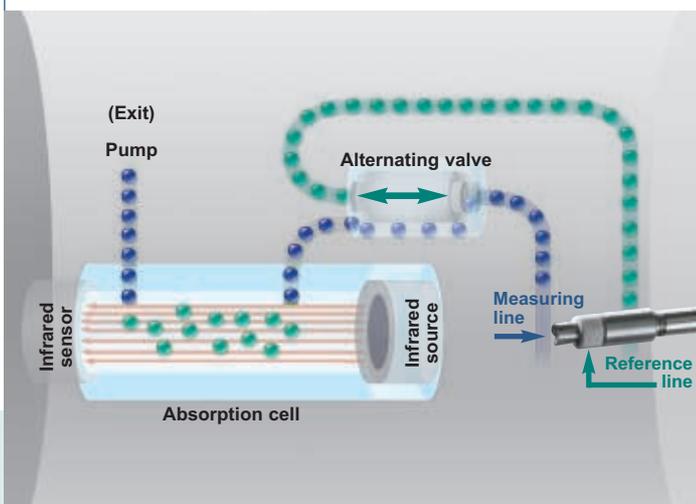
We also installed a new, longer-lasting pump and made the hand piece more durable to further reduce your maintenance costs.

## THE HLD5000 DETECTS THE LEAKS - AND NOTHING ELSE

False alarms hurt productivity because the operator wastes time determining if it really isn't a leak.

To dramatically reduce this wasted time, we rethought the entire sensor design. The result is an innovative, sensor system (patent pending) that's unlike any other. The HLD5000 uses a design that simultaneously sucks in gas from the tip of the probe and ports on the side. Because ambient refrigerant and chemically related compounds are drawn equally into both flow paths, they are ignored and will not trigger a false alarm.

## Dual gas inlet dramatically reduces false alarms



## INFRARED ABSORPTION SENSOR DOESN'T WEAR OUT

The gas samples are drawn from a switching valve into an absorption cell. Infrared light is directed through the cell. When refrigerant is present in the flow, it absorbs some of the infrared light and this amplitude drop is detected. Sensitivity is optimized for a specific gas by filtering out all of the light except that gas's peak absorption wavelength. The HLD5000 is the only halogen leak detector to use this type of sensor.

## THE HLD5000 WORKS SMARTER TO HELP YOUR PEOPLE WORK FASTER

In addition to eliminating false alarms, the HLD5000 has other time-saving features. Its response time is less than one second. It doesn't auto-zero itself like older instruments, so you do not have to withdraw the probe from a leak site to reset the zero level. A lamp on the hand piece changes color to provide additional confirmation when the leak threshold is exceeded. A half circle of lamps on the front-panel display responds like a bar graph to show the relative leak level. And with the press of a button on the hand piece, you can immediately switch the unit to its maximum sensitivity to isolate the smallest leaks. In addition to saving time on the assembly line, the ruggedness and fewer consumables of the HLD5000 mean it will spend less time on the maintenance bench. These advanced features all add up to a superior capability to find leaks in less time and with less uncertainty, all with a lower cost of ownership.

Sniffer tip and hand piece of the HLD5000

Working principle: Dual gas inlet (located in the hand piece)

## TECHNICAL DATA

Smallest detectable leak rate	0.03 oz/yr (1.0 g/a)
Measuring scale	0.03 - 1.76 oz/yr (1.0 - 50 g/a)
Response time	< 1 s
Leak rate units	g/a; mbar l/s; lb/yr; oz/yr; Pa m <sup>3</sup> /s
Warm-up time	30 s
Dimensions (diameter; height)	10.25 in. (260 mm); 14.4 in. (365 mm)
Weight	10 lb. (4.5 kg)
Length of sniffer line	15.5 ft. (4.8 m)
Sniffer tip length	3.9 in. (100 mm)
Gas flow	320 sccm
Detectable refrigerant (depends on version)	R 134a; R 404A; R 407C; R 410A; R 22
Ambient temperature range	40 - 120 °F (5 - 50 °C)

## ORDERING INFORMATION

### HLD5000

including hand piece, sniffer tip 100 mm and calibrated leak	R 134a R 404A R 407C R 410A R 22	Cat.-No. 510-010 Cat.-No. 510-011 Cat.-No. 510-012 Cat.-No. 510-013 Cat.-No. 510-014
Conversion kit for changing unit to different refrigerants	R134a R404A R407C R410A R 22	Cat.-No. 511-000 Cat.-No. 511-001 Cat.-No. 511-002 Cat.-No. 511-003 Cat.-No. 511-004
Replacement calibrated leak*		Cat.-No. 511-010
Extra sniffer tip	3.9 in.; 100 mm	Cat.-No. 511-021
Extra sniffer tip	15 in.; 400 mm	Cat.-No. 511-024
Extra extension (15 in.; 400 mm) for sniffer tip		Cat.-No. 511-020
Set of filters		Cat.-No. 511-026

\*Purchase only when needed



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