



# LS-R

## Regulated Reference Leak

### KEY FEATURES

- **Precision Test for all Electronic Refrigerant Leak Detectors**
- **Cooling Industry Award Winner '09**  
*'Environmental Product of the Year'*
- **Reliable at any Temperature / Pressure**
- **Sturdy Stainless Steel Case**
- **Flow Certification for FGas Records**

- Certification available for traceability and record keeping.
- Attach quickly to standard bulk supply.
- 1/4" SAE input for connection to standard refrigeration equipment.
- Demountable Leak Element to switch between gases and flow rates.
- Fulfil the requirements of current FGas legislation (EN14624, SAE J1627).
- Patented manufacturing process to deliver technology at low cost.
- RAC Cooling Industry Award winning technology (2009).
- Designed and Manufactured in the UK.

### Increased accuracy, stability and certification for traceable accuracy tests.

Expanding on the straightforward LS-4, the LS-R offers engineers working on-site the facility to check the sensitivity of their leak detector during a leak detection job. It can also prevent environmental conditions, such as temperature, affecting the output flow rate of the unit.

The format of the LS-R also allows for a greater level of accuracy to be achieved when defining and constructing the leak element and as such leak rates below 5g/Yr for any refrigerant are possible, HT Products can also provide an optional certificate of calibration for the product which can be referenced in the FGas records kept by companies in accordance with current legislation.

The LS-R is housed in a stainless steel case with a removable leak element allowing for gases and flow rates to be matched to the jobs or swapped during operation. HT Products' reference leaks are also available in expanded formats with gauges, reservoirs, shut-off valves and variable regulators.

### APPLICATION

- **SUITABLE FOR:**  
Refrigeration Engineers  
Production Line Tests  
Equipment Demonstrations  
Training Presentations  
In-House Detector Calibrations
- Test a leak detector's performance using several gases or flow rates.
- **KITS AVAILABLE :**  
*Carry cases, FGas Labels, extra leak elements, charging lines, filter driers, and other accessories.*

## LS-R: REGULATED REFERENCE LEAK - TECHNICAL NOTES

The LS-R implements a fixed regulator to stabilise the gas supplied to the leak element. It's main function is to eliminate any changes in bottle pressure caused by temperature giving a stable operating condition for the leak even in difficult environmental conditions. Dropping the pressure from the full vapour pressure of the refrigerant also allows the leak itself to be made larger and allows an increase in precision as well as greater scope for fine tuning to specific flow rates and gases when compared with other reference leak technologies.

Extensive research and investigation into low flow metrology over the last 30 years has given HT Products a wealth of test data and calibration records to draw from. Combined with years of practical leak detection experience in the vacuum industry the products deliver the benefits of scientific precision and the low cost demands of the service sector.



### SPECIFICATIONS

Max Input Pressure:	16 Bar
Inlet Fitting:	1/4" SAE (with Schaefer Valve)
Weight:	680 grams
Dimensions:	105 x 80 x 48 (L x W x H)
Available Gases:	R134a, R404a, R600a, R407c, R290, R22,
Available Flow Rates:	0.5 - 30 g/Yr
Recalibration Period:	12 Months

### PRODUCT OPTIONS

HT9-LSR-XXX-YYY	Standard LS-R (XXX = Gas YYY = Flow Rate (Grams /Year))
HT9-LSRC-XXX-YYY	LS-R with Certificate of Calibration Traceable to National Standards

### ACCESSORIES / SPARES

HT9-FILL-SAE-1000	1/4" SAE Fill Line 1m
HT9-LS4R-XXX-YYY	Extra Leak Element for LS-R
HT9-LS4RC-XXX-YYY	Extra Leak Element for LS-R with Certification Traceable to National Standards
HT9-LS-RB	LS-R Replacement Chassis, 1/4" Schraeder to 1/4" Flare, Regulated 37mbar output.

### KITS / BUNDLES

HT9-LSRKIT1	LS-RC with Fill Line and 3 leak elements in plastic case
HT9-LSRKIT2	LS-RC with Inficon D-Tec Select, Fill Line, 3 x leak elements and 3 x LS-4 Reference Leaks in Carry Case



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