



"Your Direct Source for Condition Monitoring, Test & Measurement"

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D-TEK™ Select

Refrigerant Leak Detector



INNOVATIVE INFRARED TECHNOLOGY DELIVERS ENHANCED SENSITIVITY, SELECTIVITY AND LONGER LIFE

As the first accurate, reliable, highly sensitive, cordless refrigerant leak detector, the original D-TEK revolutionized the field. Now we have built on that technology leadership to create D-TEK Select. This next-generation refrigerant leak detector uses an innovative infrared absorption sensing cell that is extremely sensitive to *all* refrigerants — and only refrigerants. D-TEK Select maintains that sensitivity over time for consistent, accurate and reliable performance, even with the newer refrigerant blends. Best of all, the sensing cell lasts for approximately 800 hours — almost 10 times longer than the original D-TEK sensor — to lower your cost of ownership and improve job site productivity.

Additional enhancements include a charging status indicator, sensor failure indication, and NiMH (nickel metal hydride) batteries. All in an easy-to-use unit with the quality and durability you've come to expect from INFICON.

FEATURES AT A GLANCE

- 0.10 oz (3 gm)/year sensitivity
- equally sensitive to all refrigerants, including R-22, R-134a, R-404a, R-410a, R-507 (AZ-50) and all CFCs, HCFCs and HFCs
- 800-hour infrared cell life for low cost of ownership
- infrared cell does not weaken over time, so response remains consistent and accurate
- infrared cell cannot be overloaded or "poisoned" by exposure to large amounts of refrigerant
- selective to refrigerants only; will not react to smoke, humidity, airflow or temperature changes
- high-efficiency air sampling pump provides quick response and quick clearing ("zeroing")
- on-board diagnostics indicate charging status and warn of low battery or infrared cell failure
- NiMH power stick is environmentally friendly, won't corrode, and provides greater charging capacity
- includes hard plastic case, NiMH power stick, 12V and 120V adapter/recharger, tip filters and infrared cell
- made with pride in the USA

TECHNICAL NOTES

At the heart of the D-TEK Select Refrigerant Leak Detector is an Infrared absorption photometer. It consists of a sampling cell with an infrared source (or emitter) at one end, an infrared energy detector at the other end, and an optical filter in between them.

Like the visible light we see, Infrared energy is part of the electromagnetic energy spectrum. Most materials absorb specific and known wavelengths of Infrared energy. The particular wavelengths of energy absorbed by a material are known as its absorption spectra. All refrigerants have similar absorption spectra in the range of 7.5–14 micrometers.

The Infrared source (emitter) creates a high-intensity stream of energy incorporating all wavelengths in the Infrared spectrum. The stream passes through the optical filter, which blocks all wavelengths except those that refrigerants absorb. The filtered

Infrared energy strikes the detector and causes it to heat up. When refrigerant is drawn through the sampling cell by the internal pump, some of the infrared energy is absorbed by the refrigerant. This causes a decrease in the amount of Infrared energy reaching the detector and a corresponding drop in the detector's temperature, which triggers the D-TEK Select to alarm. This whole process takes a fraction of a second.

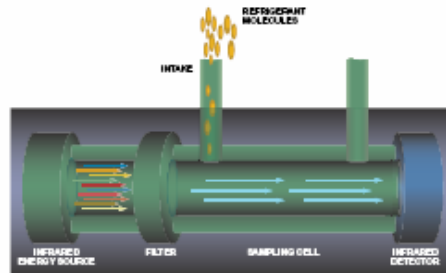
By utilizing an optical filter with precise characteristics, INFICON has made D-TEK Select sensitive to all refrigerants, while eliminating false alarms. In addition, because there is no depletion of chemicals like in heated sensor detectors, the sensor will not be harmed by high refrigerant doses nor degrade over time. The detector recovery time is also immediate after the refrigerant clears the cell.

SPECIFICATIONS

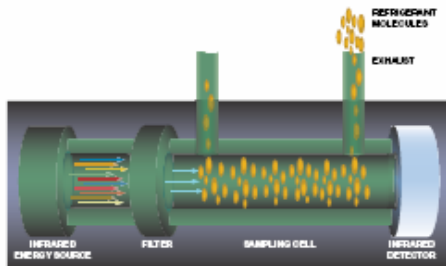
Minimum sensitivity to R-12, R-134a, R-404a	0.10 oz/yr (3 gm/yr)
Controls	Power: on/off, Sensitivity: high/low
Weight with power stick	1.19 lb (0.54 kg)
Power	NiMH power stick for 6.5 hours of operation
Charging options	<ul style="list-style-type: none"> ■ 110VAC adapter with 6 ft cord ■ 12V adapter with cigarette lighter plug
Probe length	17"
Recharger	Built in
Operating temperature range	32°F to 122°F (0°C to 50°C). When used at -13°F to 32°F (-25° to 0°C), battery will need more frequent charging.
Storage temperature range	14°F to 140°F (-10°C to 60°C)
Case material	Self-extinguishing, per UL94HB
Certifications	CE Marking Power Safety and EMC. SAEJ1627
Warranty	2-year replacement

ACCESSORIES

712-202-G1	Standard 120V model
032-0404	Headphones
703-055-P1	12V power cord with cigarette lighter plug
033-0019	Replacement 120V adapter and cord
712-700-G1	Replacement NiMH power stick
712-701-G1	Replacement infrared cell
712-702-G1	Replacement hard storage case
712-705-G1	Replacement filter cap
712-707-G1	Replacement filter cartridges



The filtered infrared energy passes through the sampling cell, striking the infrared detector. D-TEK Select is ready to sense any refrigerant.



Filtered Infrared energy is absorbed by the refrigerant present in the sampling cell, causing D-TEK Select to alarm.

RELIABILITY DIRECT, INC.

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