

D-Tek Select

Refrigerant Leak Detector

As the first accurate, reliable, highly sensitive, cordless refrigerant leak detector, the original D-TEK revolutionised the field. Now we have built on that technology leadership to create the D-TEK Select.

This next-generation of refrigerant leak detector uses an innovative infrared absorption sensing cell that is extremely sensitive to all HFC and HCFC refrigerants and even the new generation HFO's such as R1234YF.

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 1000 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.

Technical Overview

At the heart of the D-TEK Select Refrigerant Leak Detector is an infrared absorption filterometer. 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.

The infrared source (emitter) creates a high-intensity stream of energy that passes through the optical filter blocking 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 utilising an optical filter with precise characteristics, INFICON has made D-TEK Select sensitive to all refrigerants, while eliminating false alarms. The detector recovery time is also immediate after the refrigerant clears the cell.



Features at a glance

- » 3 grams / year sensitivity
- » Equally sensitive to all HCFC, HFC and HFO refrigerants, including R-22, R-134a, R-404a, R-410a, R-507 and R1234YF etc.
- » 1000-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, will not corrode, and provides greater charging capacity
- » Includes hard plastic case, NiMH power stick, 12V and 230V adaptor/recharger, tip filters and infrared cell



D-Tek Select

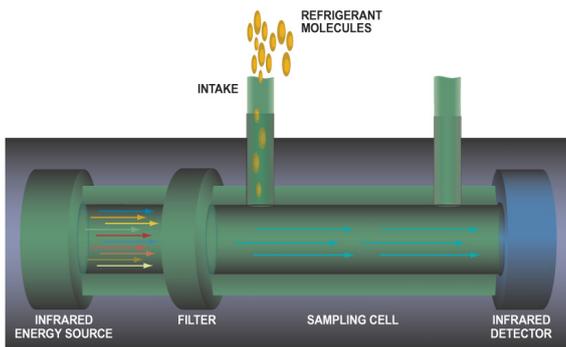
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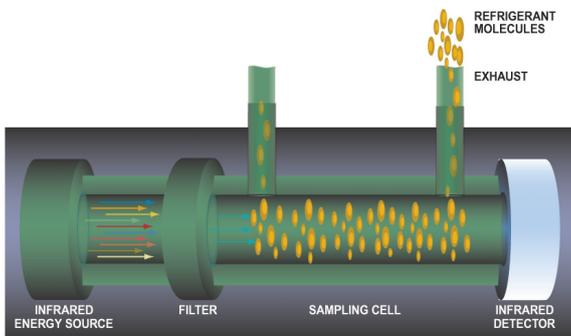
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Like the visible light we see, infrared energy is part of the electromagnetic energy spectrum. Most materials absorb specific and known wavelengths of infrared energy. The particular wavelengths of energy absorbed by a material are known as its absorption spectra. Refrigerants have their own unique absorption spectrum.

The infrared source (emitter) creates a high-intensity stream of energy incorporating all wavelengths in the infrared spectrum.



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



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



Specification

Minimum Sensitivity:	3 grams / annum.
Controls:	Power: on/off, Sensitivity: high/low.
Weight with power stick:	0.54kg.
Power:	NiMH power stick for 6.5 hours of operation.
Charging options:	230VAC adaptor with 1.8M cord. 12V adaptor with cigarette lighter plug.
Probe Length:	43cm.
Recharger:	Built In.
Operating temperature range:	0°C to 50°C.
Storage temperature range:	-10°C to 60°C
Certifications:	CE marking power safety and EMC. SAEJ1627.

D-Tek Select / Accessories

712-202-G5	Standard 230V model.
032-404	Headphones.
703-055-P1	12V power cord with cigarette lighter plug.
054517	Replacement 230V adaptor and cord.
712-700-G1	Replacement NiMH power stick.
712-701-G1	Replacement infrared cell.
705-600-G1	Replacement tip/filter kit.
712-702-G1	Replacement hard storage case.