INFICON

D-TEK® Select
Refrigerant Leak Detector

INNOVATIVE INFRARED TECHNOLOGY DELIVERS ENHANCED SENSITIVITY AND LONG 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 1,000 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 rechargeable 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/year (3 g/a) sensitivity
- Sensitive to all refrigerants, including R-22, R-134a, R-404a, R-410a, R-507 (AZ-50) and all CFCs, HCFCs and HFCs
- 1,000-hour infrared cell life for low cost of ownership
- Manual zeroing ignores user-programmed refrigerant levels when activated
- 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
- 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 battery is environmentally friendly, won't corrode, and provides greater charging capacity
- Enhanced filter design for superior filtration and resistance to contaminants
- Ability to run off AC power adapter
- Made in the USA

HOW IT WORKS

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

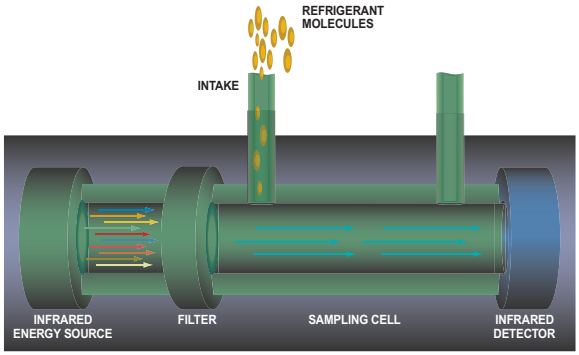
By utilizing an optical filter with precise characteristics, INFICON has made D-TEK Select sensitive to all refrigerants, while eliminating false alarms. In addition, because there is no depletion of chemicals like in heated sensor detectors, the sensor will not be harmed by high refrigerant doses nor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

SPECIFICATIONS

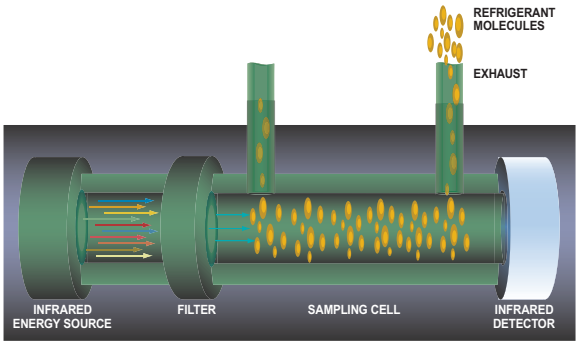
Base unit includes	Infrared cell, NiMH battery, spare filters, 120V adapter with 6' cord, 12V adapter with cigarette lighter plug, and a hard plastic carrying case.
Minimum sensitivity	0.10 oz/yr (3 g/a)
Controls	Power: on/off, Sensitivity: high/low Manual zero setting
Power source	NiMH batteries (rechargeable), AC adapter
Battery life	6.5 hours
Charging options	▮120V adapter with 6' cord ▮12V adapter w/cigarette lighter plug
Weight with battery	1.19 lb (539 g)
Probe	Rubber-coated flexible metal, approx. 17" (43 cm) long
Certifications	CE Marking Power Safety and EMC. SAEJ1627
Warranty	2-year replacement

ORDERING INFORMATION

D-TEK Select (120V)	712-202-G1
Headphones	032-0404
TEK-Check R134A reference leak	703-080-G10
Replacement Parts	
120V adapter and cord	033-0019-G1
12V power cord with cigarette lighter plug	703-055-P1
NiMH batteries	712-700-G1
IR cell (sensor)	712-701-G1
Storage case	712-702-G1
Filter cap	712-705-G1
Filter cartridges	712-707-G1



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.

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