

Ecotec E3000

Multi-Gas Leak Detector



**SETTING NEW STANDARDS
FOR SNIFFER LEAK DETECTION**

Guiding the operator to accurate leak testing

The INFICON Ecotec E3000 multi-gas leak detector is bringing new levels of productivity and reliability to the final testing of refrigerators, freezers, automotive air conditioners and similar products. Leaks that are not found increase your warranty costs. False alarms increase your rework costs. Therefore, improving the accuracy and reliability of your testing operation will provide immediate cost savings.

The Ecotec E3000 is specifically designed for demanding production environments. Numerous features make it easy and comfortable to use while making it more immune to careless operation and minimizing operator errors. It is also fast, to make the best use of your available cycle time. Innovative design and robustness keep the cost of ownership down and ensure very high up-time.

MORE RELIABLE LEAK DETECTION FOR INCREASED PRODUCTIVITY

- The Ecotec E3000 is very tolerant of variations in operator technique. It detects leaks at a greater distance from the leak location, and the sniffer tip can be moved faster without missing leaks. A search mode allows operators to quickly scan for leaks. If any are detected, they can then be easily localized.
- Sophisticated interfering gas suppression (IGS) algorithm allows the Ecotec E3000 to ignore background gases such as foaming agents under typical refrigeration operating conditions. The system's high speed mass spectrometer applies new intelligent algorithms to clearly distinguish between R600a and typical concentrations of cyclopentane and isopentane, making the Ecotec E3000 especially useful for leak checking refrigeration products. Please be sure to contact INFICON to discuss any specific application of IGS.
- When a leak exceeding a preset rejection rate is detected, multiple alarms provide an indication that can not be overlooked. The background color of the sniffer probe display changes from green to red, the LEDs lighting the sniffer tip flash, an acoustic alarm sounds and the probe handle vibrates.
- I-Guide, a new operator-guiding mode, ensures that the correct number of locations on each unit are tested and that each location is tested for the predetermined minimum time. Up to ten testing protocols can be easily preprogrammed. Individual leak rates are automatically added together to determine the overall leak rate for the unit being tested. This provides a more accurate basis for pass/fail decisions than the leak rates of individual joints, leading to lower rejection rates and increased manufacturing productivity.
- The Ecotec E3000 comprehensively monitors itself to notify the operator of any problems before any leaks can be missed.

FEATURES AT A GLANCE

High reliable leak detection

- Improved system design compensates for poor sniffing operation reducing the potential for missed leaks.
- IGS (Interfering Gas Suppression) ensures only leaks are detected.
- Built-in ECO-Check reference leak allows for easy and fast calibration at the production line at any time.
- Multiple alarms make sure leaks can not be overlooked.
- I-Guide (operator-guiding mode) ensures your operator tests the right locations with the right technique.
- Unit can be operated via the probe display and probe buttons without access to the main unit.
- Built-in illumination source on the probe helps precisely position the sniffer tip.

Fast and easy operation

- Ergonomic probe design allows for easy and comfortable use.
- Operating software is available in many languages.

EASY AND COMFORTABLE TO USE FOR FOOLPROOF OPERATION

- After the initial set-up, there is no need to access the base unit, which frees the operator to concentrate on the sniffing process. All relevant messages will appear on the probe display, and all operator commands can be entered via the two push buttons on the probe handle.
- The built-in ECO-Check reference leak allows the operator to verify the Ecotec E3000 is functioning correctly directly at the production line at any time. The test leak can be placed right at the production line and connected to the base unit, which can also be placed conveniently out of the way.
- The sniffer tip is positioned at an angle to the probe handle - an ergonomic design that allows for easy and comfortable access to all leak testing sites.
- A built-in, adjustable illumination source helps operators precisely position the sniffer tip.
- The newly designed graphic display makes entering set-up parameters very easy.
- The software is available in several languages.



Built-in calibrated leak ECO-Check

LOW COST OF OWNERSHIP

- All components used in the Ecotec E3000 have been chosen for high reliability and long life.
- Preventive maintenance can be performed with very little down time and is required very infrequently.



Graphic display



Built-in illumination



SPECIFICATIONS

Minimum detectable leak rate	R134a R600a Helium	0.05 g/a (0.002 oz/yr) 0.05 g/a (0.002 oz/yr) 1×10^{-6} mbarl/s
Measuring scale		0.05 - 999.99 g/a (0.002 - 99.999 oz/yr)
Sensor response time		0.3 s
Response time incl. sniffer line		0.8 s
Maximum no. of gases detectable simultaneously		4
Leak rate units		g/a; oz/yr; mbar l/s; Pa m ³ /s; ppm
Start-up time		< 2 min
Dimensions (width x height x depth)		610 x 370 x 265 mm 24 x 14.6 x 10.4 in
Weight		34 kg (75 lbs)
Gas flow		160 sccm
Ambient temperature range		10 - 45°C (50-113°F)

ORDERING INFORMATION

	Cat. No.		Cat. No.
Ecotec E3000 Multi-gas leak detector 230 V, 50 Hz 100/115 V, 50/60 Hz	530-001 530-002	External display unit for Ecotec E3000RC Table top version Rack version	551-100 551-101
Ecotec E3000, RC version 230 V, 50 Hz 100/115 V, 50/60 Hz	530-103 530-104	Connecting cable for display unit, 5 m	551-102
Sniffer line with integrated display and push-buttons		Test leaks for refrigerants (2 - 5 g/a)	
SL3000-3, 3 m length	525-001	R134a	12220
SL3000-5, 5 m length	525-002	R600a	12221
SL3000-10, 10 m length	525-003	R404A	12222
SL3000-15, 15 m length	525-004	R502	12223
Sniffer line adapter for system integration	525-005	R22	12225
Sniffer tips		R152a	12227
ST 312, 120 mm, rigid	12213	R407C	12228
FT 312, 120 mm, flexible	12214	R410A	12229
ST 200, 200 mm, rigid	12218	R401a	12230
FT 250, 250 mm, flexible	12266	R290	12231
ST 385, 385 mm, rigid	12215	Test leaks for other gases	
FT 385, 385 mm, flexible	12216	Forming gas	12233
FT 600, 600 mm, flexible	12209	(10% hydrogen, 90% helium)	
ST 400, 400 mm, 45° angled	12272	Halon 1301	12234
Holder for sniffer probe	525-006		
ECO-Check reference leak, R134a*	531-001		

* optional, not included with delivery of Ecotec E3000



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Due to our continuing program of product improvements, specifications are subject to change without notice.

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