



The best choice for high performance

INFICON offers the world's leading technology in the field of measuring and sensor technology as well as process control for sophisticated vacuum processes in highly specialized industries. INFICON products for gas leak detection are used, in particular, in the refrigeration and air conditioning sectors, in semiconductor manufacturing and in automobile production.

With INFICON, you have a competent partner at your side who is familiar with the challenges of your industry and, working together with you, finds the best solution to meet your requirements. INFICON specialists at numerous branches worldwide provide top service and the broadest possible support. State-of-the-art production facilities are located in the USA, Europe and Asia.

ECOTEC E3000 MULTI-GAS LEAK DETECTOR

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 x 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 number 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 (W x H x D)		610 x 370 x 265 mm 24 x 14.6 x 10.4 in.
Weight		34 kg (75 lb.)
Gas flow		160 sccm
Ambient temperature range		10 – 45°C (50 – 113°F)

ORDERING INFORMATION

PRODUCT	CAT. NO.	PRODUCT	CAT.-NO.
Ecotec E3000 multi-gas leak detector		External display unit for Ecotec E3000RC	
230 V, 50 Hz	530-001	Table top version	551-100
100/115 V, 50/60 Hz	530-002	Rack version	551-101
Ecotec E3000, RC version		Connecting cable for display unit, 5 m	551-102
230 V, 50 Hz	530-103	Test leaks for refrigerants (2 – 5 g/a)	
100/115 V, 50/60 Hz	530-104	R134a	12220
Sniffer line with integrated display and push-buttons		R600a	12221
SL3000-3, 3 m length	525-001	R404A	12222
SL3000-5, 5 m length	525-002	R152a	12227
SL3000-10, 10 m length	525-003	R407C	12228
SL3000-15, 15 m length	525-004	R410A	12229
Sniffer line adapter for system integration	525-005	R401a	12230
Sniffer tips		R1234yf	12235
ST 312, 120 mm, rigid	12213	R32 (2-8 g/a)	12236S
FT 312, 120 mm, flexible	12214	R290 (7-8 g/a)	12231
ST 200, 200 mm, rigid	12218	Test leaks for other gases hydrogen/forming gas	12322
FT 250, 250 mm, flexible	12266	Test leaks for refrigerants (10 – 14 g/a)	
ST 385, 385 mm, rigid	12215	R134a	12240
FT 385, 385 mm, flexible	12216	R600a	12241
FT 600, 600 mm, flexible	12209	R404A	12242
ST 400, 400 mm, 45° angled	12272	R744 (CO ₂)	12275
Holder for sniffer probe	525-006		
ECO-Check reference leak, R134a*	531-001		

*optional, not included with delivery of Ecotec E3000



Ecotec E3000 Multi-Gas Leak Detector

Setting new standards for sniffer leak detection



INFICON Instruments for Intelligent Control®

www.inficon.com reachus@inficon.com

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

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.

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.



cTÜVus Certified
(NRTL checked)

ADVANTAGES AT A GLANCE

- Short cycle times**
 Thanks to high sensitivity all micro leaks can be found fast
- No cross sensitivity**
 IGS Mode (interfering gas suppression) ensures only leaks are detected
- Allows flexibility**
 Measure four different gases simultaneously
- Increase testing quality**
 I-Guide mode enables even unexperienced operators to find all leaks
- Fast function check and calibration**
 The reference leak -ECO-Check- can be used either for function check or calibration of the E3000 at any anytime
- No missing leaks**
 Several alarms make sure that leaks can not be overlooked

MORE RELIABLE LEAK DETECTION FOR INCREASED PRODUCTIVITY

Ecotec E3000 detects leaks at a greater distance from the leak location, and the sniffer tip can be moved faster without missing leaks. This makes the detector very tolerant of variations in operator technique.

Ecotec E3000 ignores background gases such as foaming agents under typical refrigeration operating conditions with the help of the sophisticated interfering gas suppression (IGS) algorithm. 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.

Multiple alarms will provide an indication that cannot be overlooked when a leak exceeds a preset rejection rate. 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.

To ensure that the correct number of locations on each unit are tested and that each location is tested for the predetermined minimum time, the operator makes use of the I-Guide, a new operator-guiding mode. 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.

Ecotec E3000 comprehensively monitors itself to notify the operator of any problems before any leaks can be missed.

EASY AND COMFORTABLE TO USE FOR FOOLPROOF OPERATION

The operator is free to concentrate on the sniffing process after the initial set-up, since there is no need to access the base unit. 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.

A function check can easily and quickly be made at any time with the help of the built-in ECO-Check reference leak. This verifies that Ecotec E3000 is functioning correctly directly at the production line at all times. 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.

Easy and comfortable access to all leak testing sites is possible thanks to the

sniffer tip ergonomic design positioned at an angle to the probe handle.

A built-in, adjustable illumination source helps operators precisely position the sniffer tip.

The graphic display makes entering set-up parameters very easy.

The software is available in several languages.

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.



BUILT-IN CALIBRATED LEAK ECO-CHECK



BUILT-IN ILLUMINATION



SNIFFER PROBE

- The leakage rate is displayed on the ergonomically designed sniffer probe.
- The user can concentrate on the sniffing process and monitor the leakage rate simultaneously.
- The vibration and alarm function of the sniffer probe alerts the operator when the trigger level is exceeded.