INFICON

Sensistor ISH2000

Hydrogen Leak Detector

IDEAL FOR FINDING BOTH BIG AND SMALL LEAKS

Fast, Simple and Cost Effective Industrial Leak Detection and Leak Testing

The Sensistor ISH2000 is a robust instrument for professional leak detection. The unique method involving the use of inexpensive forming gas (5 % hydrogen and 95 % nitrogen) as tracer gas combines unmatched measuring properties with user-friendly technology, low costs and minimal service requirements. This makes Sensistor ISH2000 the best option for a wide range of production and maintenance applications, especially for finding leaks of a size that would leak liquids such as water, fuel and oils, or in environments with occasional large leaks.

With its unique tolerance to high gas concentrations, the Sensistor ISH2000 is superior in precisely pinpointing leak location, irrespective of leak size.

INFICON provides a range of detectors, probes and instruments for tracer gas filling and fixture control that make it quick and simple to build tailor-made stations for leak testing and leak detection. For many applications, you do not even need to make any adjustments – it is simply a matter of pressing the start button on the Sensistor ISH2000 to start locating leaks.

SENSISTOR ISH2000

Flexible and versatile for every test environment

SENSISTOR ISH2000P

Designed for panel mounting – perfect for automatic leak testing

Leak Detection Methods

HAND SNIFFING

The ISH2000 leak detector is designed for locating and measuring leaks with maximum ease. Switch on the detector, move the hand probe over the test object and let the alarm indication guide you to the leak.

SNIFFER CLAMP TEST

The ISH2000 can perform point tests using customized local enclosures around the test point. An easy-to-set up leak detection solution increasing the test sensitivity and reducing wind draft interference.

ROBOTIC SNIFFING

The ISH2000 leak detector can easily be integrated in a robot system for robot assisted, operator independent leak tests.

ACCUMULATION TEST IN CHAMBER

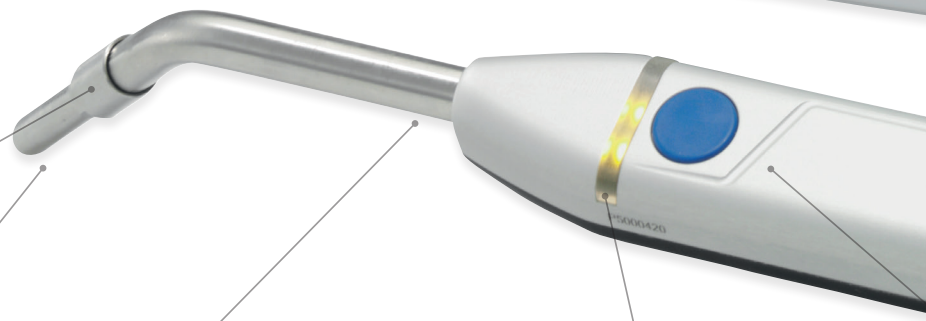
The ISH2000 leak detector can be used for integral leak tests, where the entire object is placed inside a chamber and tested for leaks. The leak detector measures the total leak rate of the test component regardless of the number and the position of the leaks.

Alternative alarms through different types of audio signals and/or visual indicators on the screen.

Combined screen display for "Measure" and "Locate" improves the efficiency of the operator's work.

Adjustable audio indication makes the measurement procedure easier. Choose between continuous audio signal, audio signal only at alarm level, or audio signal at a defined percentage of the alarm level.

The audio alarm can be clearly heard even in noisy environments, and in cases where the measurement point and the instrument are far apart.



Easy sensor fitting makes it simple to replace the sensor in a matter of seconds.

Short recovery time reduces downtime when detecting gross leaks.

Built-in illumination source of the probe helps precisely position the probe tip.

LED Leak/Tight indication in the hand probe provides the operator with fast information during the leak detection process.

ACCESSORIES

There are plenty of ways to increase your application area with the broad range of ISH2000 accessories.

AP29ECO SAMPLING PROBE
For automatic leak testing of entire products or parts of products.

TGF11 TRACER GAS FILLER
For controlled filling and evacuation of tracer gas in the test object.

P50 FLEX HAND PROBE
With a flexible neck. Facilitates leak detection in hard-to-reach places.

Unique Sensistor sensor technology is at the very heart of INFICON hydrogen leak detectors and ensures unsurpassed selectivity, sensitivity and reaction time.

High sensitivity – detects smaller leaks and shortens the time for each test cycle.

A choice between pre-defined measurement units for leak flow, PLUS programmable unit, supports the setting up of the instrument for different measurement situations.

Multi-point measurement with accumulation of the values makes it possible to add several leaks and compare with the total threshold value.

Automatic and manual zero setting eliminates problems with high background levels of tracer gas. Simply push a button to eliminate background disturbance.

Ergonomic hand probe with built-in intelligence facilitates the operator's control of the instrument.

C21 probe cables In lengths of 3, 6 and 9 meters (9.8, 19.6 and 29.5 ft.) for a variety of test situations.

SENSISTOR ILS500 F LEAK DETECTION FILLER
For controlled tracer gas handling including tooling control and gross leak test.

H65 INSERT SENSOR
Replaces the standard hand probe in automated tests.

CALIBRATION LEAKS
For calibration and function tests of the Sensistor ISH2000.

APPLICATIONS

The Sensistor ISH2000 Hydrogen Leak Detector is the ideal instrument for finding typical liquid leaks. It is also the best choice in environments where large leaks occur occasionally. The combination of inexpensive tracer gas, flexible testing procedures and high reliability makes Sensistor ISH2000 the optimal system solution for a variety of demanding applications.

INDUSTRY

INFICON hydrogen leak detectors are used to reliably test a variety of industrial products, such as plastic containers, hoses, valves and hydraulic components. High sensitivity and flexibility make the Sensistor ISH2000 the natural choice for several industrial applications.

- High sensitivity
- Simple and accurate location of leaks
- Suitable for both automatic and manual measurement
- Inexpensive tracer gas
- Accurate leak size measurements

AUTOMOTIVE

Ensuring that fuel tanks, AC systems, oil pipes, gearboxes and light fittings are absolutely tight demands fast and efficient leak testing. The Sensistor ISH2000 achieves high sensitivity and short cycle times.

- Simple leak location without using fluids
- Higher sensitivity than pressure-decay measurement
- The testing is unaffected by temperature variations
- The test method can be automated
- NIST traceability
- Accurate leak size measurements

AEROSPACE

Leaks in the fuel, oxygen or cooling systems often result in long and unpredictable repair times. The Sensistor ISH2000 instrument is unparalleled in simplicity and reliability both for maintenance and assembly situations.

- Clean and dry test method
- Exact location of invisible leaks
- High sensitivity
- Inexpensive tracer gas
- Complete system for gas injection
- For explosion proof detector option please see Extrima Hydrogen Leak Detector

PACKAGING

The Sensistor ISH2000 opens the door to a completely dry test method that can easily be adapted, automatically or manually, to both flexible and hard packaging material. The tracer gas contains the approved packaging gases hydrogen (E 949) and nitrogen (E 941), which live up to the demands of the foods industry.

- Special model ISH2000 HySpeed for up to 4 tests per second
- Exact detection of the position of the leak
- Higher sensitivity than conventional methods

RAC

Leak testing using tracer gas is a standard procedure in the manufacture of white goods and air conditioning units. The dissemination capacity of hydrogen minimizes the risk of the detector being “blinded” in the event of major leaks.

- Inexpensive tracer gas
- Maintenance-free test equipment
- < 0.5 g/y equivalent refrigerant sensitivity (<0.02 oz/year for USA)
- No risk of the measurement probe becoming clogged

MEDICAL

High demands on quality control make the Sensistor ISH2000 an attractive solution for leak testing implants, blood pumps, fluid bags, catheters and other types of consumables. The test method is completely dry and the tracer gas does not affect the material tested in any way.

- Higher sensitivity than pressure decay measurement
- Not affected by elastomeric creep
- Exact detection of the position of the leak
- Accurate leak size measurements

PROCESS

Extremely high demands on tightness are often made in the process industry. Pipe systems, valves and containers, hydrogen-cooled generators and fuel cells are just some examples. In the context of both production and service, hydrogen leak detection provides a fast and reliable method for tightness control and leak detection.

- Leak detection with portable equipment
- High sensitivity
- Superior method to bubble testing
- For explosion proof detector option please see Extrima

SPECIFICATIONS

Minimum detectable leak rate	
Detection Mode with P50 standard probe	$1x10^{-7}$ mbarl/s or cc/s with 5% H_2
Analysis Mode with P50 standard probe	0.5 ppm H_2 ; $5x10^{-7}$ mbarl/s or cc/s with 5% H_2
Start time	1 Minute
Calibration	External calibration leak or calibration gas
Inputs / Outputs	25 pin, D-Sub with status signals 24V DC / 0.5A 9 pin, D-Sub with RS232 Probe connector
Maintenance	Maintenance-free
Power supply	
Sensistor ISH2000	100 – 240V AC, 50/60 Hz, 2 A
Sensistor ISH2000P	24V DC, 3 A
Dimensions (W x H x D)	
Sensistor ISH2000	275 x 157 x 170 mm (10.8 x 6.1 x 6.6 in.)
Sensistor ISH2000P	275 x 137 x 81 mm (10.8 x 5.3 x 3.1 in.)
Weight	
Sensistor ISH2000	3.9 kg (8.6 lb.) excl. probe and probe cable
Sensistor ISH2000P	1.7 kg (3.7 lb.)

ORDERING INFORMATION

	Part no.
Sensistor ISH2000 (Incl. Hand Probe P50 and 3 m C21 probe cable)	590-750
Sensistor ISH2000P	590-760
Accessories	
Hand Probe P50	590-780
Hand Probe P50 Flex, flexible neck	590-790
Robot Probe R50	590-920
AP29ECO Sampling probe	590-035 (3cc/sec sample flow) 590-036 (1cc/sec sample flow)
TGF11 Tracer Gas Filler	590-558 (standard pressure version) (0.3 - 10 barg /4.4 - 145 PSIG) 590-559 (low pressure version) (0.05 - 2 barg/ 0.7 - 29 PSIG)
Sensistor ILS500 F Leak Detection Filler	590-571 590-573 (high pressure model)
C21 Probe cables	590-161 (3m, 9.8 ft) 590-175 (6m, 19.6 ft) 590-165 (9m, 29.5 ft)
H65 Insert sensor	590-250
Calibration leaks	see separate data sheet
Combox	590-820

INFICON Instruments for Intelligent Control®

www.inficon.com reachus@inficon.com