

# AP29ECO Sampling Probe

For Integration Into Automatic  
Leak Test Systems



## Automatic Leak Testing With Hydrogen Gas

**AP29ECO, an accessory to Sensistor Sentrac Hydrogen Leak Detector, allows for automatic leak testing with hydrogen gas. Controlled by the Sentrac, it draws a well-defined sample of air and passes it over the built-in hydrogen sensor.**

The sampling probe AP29ECO has an automatic purging function which can be activated before and after sampling, and when the gas concentration exceeds a set limit. It can, therefore, encounter gross leaks and still be cleared within seconds. Together with the unique properties of hydrogen gas, this feature gives an unprecedented reliability of your system. Its rugged design and serviceability make it ideal for use in tough industrial environments. The sensor element can be replaced without opening the probe, and the sniffer flow function is powered by a long-life membrane pump. The pump is easy to maintain and it is only in operation when a sample is drawn. This makes the AP29ECO a cost effective and environmentally friendly

### ADVANTAGES AT A GLANCE

- Draws a well-defined air sample to the built-in hydrogen sensor
- For accumulation chamber tests, local enclosure tests and scanning
- Suitable for hydrogen concentration monitoring
- Overexposure protection minimizes recovery time in case of gross leaks
- Automatic calibration
- Available with 1 cc/s or 3 cc/s sniffer flows

alternative. The unit can be ordered with two different sniffer flows — 1 cc/s or 3 cc/s. AP29ECO keeps track of the sniffer flow and sends an alarm to the Sensistor Sentrac if the sniffer flow begins to drop.

### HOW IT WORKS

#### Accumulation Chamber Test

Pressurize a test object with hydrogen tracer gas and place it in a chamber in which the air is circulated by a fan. Any hydrogen leaking from the object will stay within the chamber and the concentration builds up in proportion to the leak size. The fan ensures a homogeneous concentration irrespective of the location of the leak. Controlled by the Sentrac Leak Detector, AP29ECO allows a certain time (accumulation time) before it draws a sample from the chamber and analyzes the gas concentration. It then purges the sampling hose and is ready for a new test. If the concentration exceeds the set reject level, the Sentrac will give an alarm output. In case of a gross leak, AP29ECO interrupts the sampling, gives an alarm and purges the sample input.

#### Local Enclosure Test

Pressurize a test object with hydrogen tracer gas. Enclose the test point on the object (a joint, valve, etc.) with a clamp shell from which AP29ECO draws an air sample. The shell should be designed so that air passing through it collects any gas that may leak out from the object. The gas concentration in the sample air is proportional to the leak size. This method allows leaks down to the grams/year level to be detected in seconds.

## AP29ECO SAMPLING PROBE

### SPECIFICATIONS

Minimum detectable leak rate	0.5 ppm H <sub>2</sub> ; 3x10 <sup>-5</sup> mbarl/s
Supplies	Electrical supply (24 V (dc)) from the Sensistor Sentrac Hydrogen Leak Detector Calibration gas Fresh air with no H <sub>2</sub> contamination
Ambient temperature range	50° to 122°F (10° to 50°C)
Dimensions	3.6 in. x 7.3 in. x 10.2 in. (92 mm x 185 mm x 260 mm)
Weight	9.3 lb. (4.2 kg)
Compatibility	For use with Sentrac Leak Detector, a Combox60 (Cat. No. 590-821) is required

### ORDERING INFORMATION

	Cat. No.
AP29ECO, 3 cc/s (incl. C21 cable 3m, PC bus cable and Sentrac External DSUB IO Adapter)	590-035
AP29ECO, 1 cc/s (incl. C21 cable 3m, PC bus cable and Sentrac External DSUB IO Adapter)	590-036

#### Accessories

H65 Insert Sensor	590-250
PC Bus cable, 6.5 ft. (2 m)	591-420
Sentrac External DSUB IO Adapter	598-330
Combox60	590-821
Cable C21, 9.8 ft. (3 m)	590-161
Cable C21, 9.8 ft. (6 m)	590-175
Cable C21, 9.8 ft. (9 m)	590-165
Reference leaks	See separate data sheet



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