

960D Auto-Test Dry Leak Detector

The Varian Auto-Test 960D Dry leak detector offers the same features as our standard 960 high sensitivity leak detector but in a completely dry version. The oil-free turbomolecular spectrometer pump as well as totally dry 21 cfm scroll type roughing and backing pumps eliminate the possibility of hydrocarbon contamination of the test object. The dry scroll pump provides extremely fast pump down times. In fact, the Varian family of dry leak detectors provides the fastest pumping speed of any dry leak detector in the industry. The 960D's auto-zero, auto-calibration, and auto-ranging capabilities make this a truly versatile, reliable, and easy-to-operate leak detector.

The 960D addresses those applications in which extra high sensitivity, contamination-free leak testing environment is essential. Many applications in the medical, electronics, and optics industries mandate an ultra-clean environment for the testing and manufacturing of their products. The 960D meets these testing requirements, and it does so accurately, quickly, and reliably.



Features

- Completely oil-free vacuum system
- High throughput scroll-type dry roughing and backing pumps
- Full 10^{-11} atm cc/sec range leak rate readout
- Auto-tuning, auto-calibration, and auto-zero with one button
- Dual, switchable ion sources
- Instant overpressure protection at all times
- Programmable auto sequencer option
- RS232 and parallel I/O port
- Gross leak capability
- Specially designed enclosure
- External VCR vent fitting for dry nitrogen venting

Benefits

- Contamination-free leak detection
- No pump oils to add or dispose of
- Ultra clean spectrometer operation
- Very fast test cycle times
- Highest sensitivity for detecting minute leaks
- Simplicity of operation
- No delays in testing because of filament burn-out
- Extends operating time before service is required
- Total automation for pass/fail component testing
- Data logging and remote computer control
- Leak-check at high test port pressures
- Reduced particle generation, for clean room applications
- Maintains cleanliness of test object and leak detector vacuum system

Technical Specifications

■ Sensitivity

- 2×10^{-11} atm cc/sec for helium
- 8×10^{-12} atm cc/sec for air

■ Leak indicator

A 50-segment bar graph indicator displays leak rates from 10 to 2×10^{-11} atm cc/sec automatically. The manual mode can also be used for any decade scale. A leak can also trigger an audible alarm frequency which varies in proportion to the size of the leak.

■ Spectrometer tube

The preamplifier is computer-optimized, temperature-stabilized, and solid state. Programmed warm-up minimizes start-up time. The tube is kept at a constant temperature at all times to maintain stability. The ion source has dual filaments of long-life, thoria-coated iridium. The service valve isolates the spectrometer tube for removal without shutting down the vacuum system.

■ Response time

Less than 2 seconds for helium, in accordance with AVS Standard 2.1.

■ Amplifier drift

Less than 2% of full scale of the most sensitive range, in accordance with AVS Standard 2.1.

■ Noise level

Less than 2% of full scale, peak-to-peak, in accordance with AVS Standard 2.1.

■ High-vacuum pump

Oil-free and maintenance-free ceramic bearing Turbo pump.

■ Rough pump

Oil-free scroll pump.

■ Forepump

Oil-free scroll pump.

■ Automatic valve sequencing

Microprocessor-controlled valve operation delivers automatic system cycling. The test and roughing valves are vacuum-actuated, requiring no external high pressure air supply. Automatic shutdown is achieved with one switch function.

■ Cold trap

Liquid hold capacity is 14 hours.

■ Safety interlocks

The valve system design completely protects the high-vacuum system against pressure surges and power interruption.

■ Test port

1-1/8" (28 mm) quick coupling.

■ Cabinet

The front and side panels are removable to allow easy access to all components. Electronics are accessed from a hinged turret door and removable back panel. Cabinet is caster-mounted for mobility.

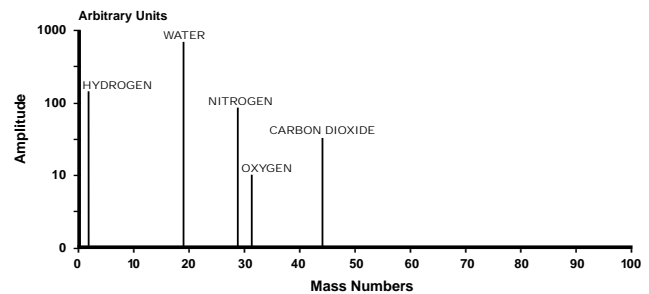
■ Shipping weight

Approximately 510 lb (232 kg).

■ Power requirements

115 V 50/60 Hz, or 220 V 50/60 Hz, 30/15 amps.

RGA Trace at Test Port of Leak Detector



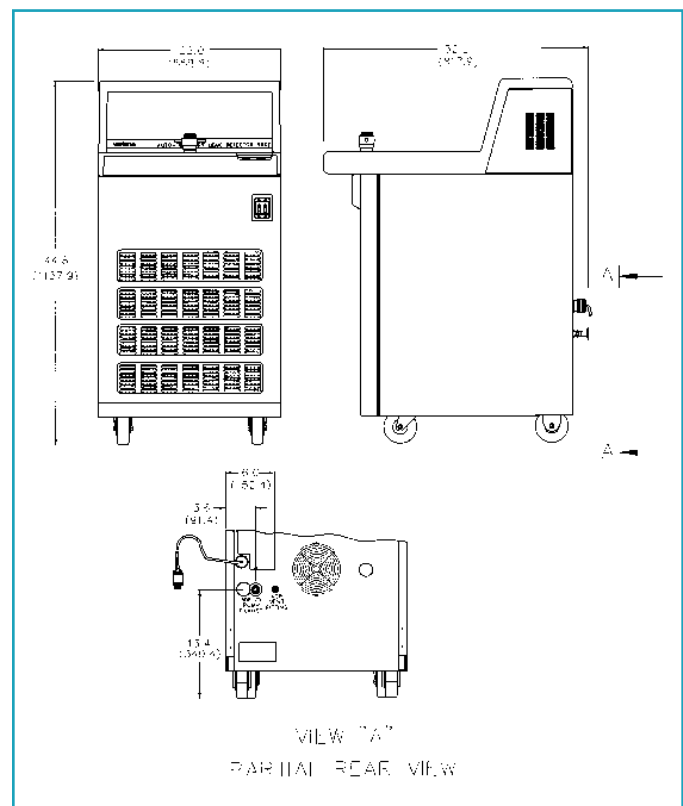
Ordering Information

Varian Part No.	Description
D960-L9060-301	960D Dry Leak Detector, 115 V
D960-L9060-302	960D Dry Leak Detector, 220 V

■ Options

Varian Part No.	Description
0991-L5650-301	Remote leak indicator with 25' cord
0991-L5805-301	RS232 interface
0991-L5820-301	Auto sequencer

960D Dimensions inches (mm)



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