960, 947, & 948 Auto-Test® Leak Detectors

Available in Turbo or Diffusion Pump

Varian's microprocessor-controlled Auto-Test leak detectors are ideally suited for automated testing, high-speed production testing, or programmable operation. They include features such as pushbutton tuning, calibration and zeroing, automatic ranging, and displayed condition codes. The 948 model incorporates a cold trap which allows rapid testing of parts with contaminants or high water vapor content.

To enhance performance, the Auto-Test leak detectors are offered with an optional auto sequencer, interface package, or a hand-held remote module.

The auto sequencer, used for repetitive test applications such as IC testing, will initiate and complete the test cycle and then display a reject or accept identification.

An optional interface package enables the leak detectors to deliver and accept signals from other process equipment, making them ideal for production line testing. In addition, an RS232 computer interface adds the advantages of programming and data storing capabilities.

The hand-held remote module, which is linked to the leak detector through the interface package, allows operation of the leak detector from distances of up to 25 feet.

**Specifications**

- **Sensitivity:**
  - (model 960) $8 \times 10^{-10}$ atm cc/sec (air)
  - $2 \times 10^{-11}$ atm cc/sec (He)
  - (model 947/948) $7.5 \times 10^{-11}$ atm cc/sec (air)
  - $2 \times 10^{-10}$ atm cc/sec (He)

- **Response Time:** < 2 second (He)

- **Amplifier drift:** < 2% of the most sensitive scale per AVS std. 2.1, < 5% for 960

- **Noise Level:** 2% of the most sensitive scale per AVS std. 2.1, < 5% for 960

- **Cycle Time:**
  - 6 seconds atm. to test mode (fine)
  - 3 seconds for small volume (gross)

- **Power:**
  - 115V, 50/60 Hz, 1Ω, 30 amp
  - 230V, 50/60 Hz, 1Ω, 15 amp

**Order Information**

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For spare parts and accessories see pages 291 to 293.

**Note:** Single in-stick Convert-A-Port™ fixture and universal fixture are available with models 947 and 948. See factory-installed options.
IC Testers for Mil Spec Testing

Varian’s new family of rapid cycle IC testers makes small part leak testing to MIL SPEC standards almost totally automatic and super fast. The system uses helium as a tracer rather than radioactive gas, eliminating worries about worker exposure or residual radiation.

In use, the operator merely inserts the devices into the fixture and closes the lid. The test cycle starts automatically.

Three fixtures to choose from:

1. **dual in-stick Convert-A-Port™ test fixture**
   Capable of testing in excess of 9000 parts per hour to MIL SPEC 883 B.
2. **single in-stick Convert-A-Port test fixture**
   Capable of testing in excess of 4000 parts per hour to MIL SPEC 883 B.
3. **cup-shaped test fixture**
   Tests individual ICs with a less than 6 second cycle time to MIL SPEC 883 B.

For detailed information on which of the three leak detectors best fits your needs, consult with your Varian Sales Engineer.

High throughput
- 9000 parts/hr with dual in-stick
- 4000 parts/hr with single in-stick
- less than 6 second cycle time with cup fixture

MIL spec testing
- tests to specified leak rate

Simplified operation
- automatic cycling
- operator only loads and unloads
- no LN₂ required

High reliability
- fully automatic go/no-go testing
- operator unload routine is different with a failed test
- no meters to watch
- system will not test without all correct status signals

Start-up support
- installation by qualified sales engineer
- operational checkout
- operating instructions

After sale support
- warranty extensions
- training classes
- video training films
- spare parts available from selected locations worldwide

Fixture specifications
- cup-shaped test fixture 4" diameter bore, 1" deep, less than six second cycle time
- single in-stick Convert-A-Port™ test fixture, stick chamber size 1.3" ID, 21" long, 8-12 second cycle time
- dual in-stick Convert-A-Port™ test fixture, two separate stick chambers identical in size to single stick described above.