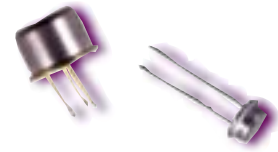




ORS



Perform Package Moisture and Gas Analysis at Your Facility



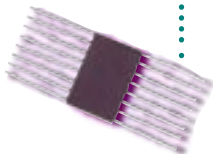
Introducing
a user-friendly test
system for monitoring
the quality of
your hermetic
packaging processes.



The IVA system is specifically designed for the quantitative analysis of low molecular weight gases contained in hermetic packages, cavities and other enclosures. The Model 110-s concept integrates automated hardware with easy-to-use icon-driven software. Its design permits routine quality control, failure analysis and research level testing operation as a turn-key analytical system.

IVA 110-s Internal Vapor Analyzer

The IVA 110-s includes a high-performance, quadrupole-mass spectrometer analyzer, a sample-mounting interface and precision hardware. The instrument is also computer-controlled and equipped with exclusive ORS integrated system control software — which provides instrument control, data analysis, data archiving and ease of operation.



System capabilities:

- Simultaneous measurement of the concentrations of moisture, sealing gases, solvents and outgassing products of each device tested
- Positive identification of gases by spectral analysis
- Sensitivity in the parts-per-million range
- Measurement of the relative pressure in each package
- Interchangeable sample mount design for testing a wide variety of metal and ceramic packages
- Automated calibration, data acquisition and quantitation
- Comprehensive interlock system to protect the unit from power failures, operator errors and hardware failures
- File management and statistical handling programs

Standard features:

- High sensitivity, high resolution quadrupole-mass spectrometer with 1 - 512 AMU mass range cross-beam ion source with dual Rhenium filaments and 90° off-axis secondary electron multiplier; quadrupole control unit with Intel 80C196 internal computer, built-in digital peak processor, crystal stabilized radio frequency generator, 16-channel analog I/O module and filtered electrometer preamplifier
- Vacuum chamber with air-cooled turbomolecular pump
- Sample inlet with pressure monitor and temperature control/monitor system
- Interchangeable electro-pneumatic and manual sample piercing system with computer-controlled sampling valve
- Electro-pneumatic vacuum isolation valves
- High performance calibration system including Dewpoint Hygrometer with Dewpoint Sensor, three (3) calibration volumes of choice, general purpose humidifier and calibration software package
- Data system with 133MHZ Pentium Processor, 16 Megabyte On-board RAM, 1.6GB Hard Drive, 1.44 Megabyte 3.5" Diskette Drive, 17" SVGA Color Graphics Monitor (1024 x 760 Resolution), dot matrix printer, integrated system control software, data acquisition software, data quantitation and archiving routines



Specifications and product configuration specified herein are subject to change without prior notice. Systems are customer built to order. Availability of system and options may be limited. Orders are subject to acceptance by ORS Corporate Headquarters, Whitesboro, NY. ORS reserves the right to substitute components or peripherals of equal or greater value.

Options:

- Vacuum fixturing, automatic purge isolation valve and software module for analysis of glass and stainless steel gas cylinders; one stainless steel gas collection cylinder is included
- NIST (National Institute of Standards and Technology) Mass Spec Database of more than 62,000 spectra with IVA Control Software interface for use in identification of unknowns

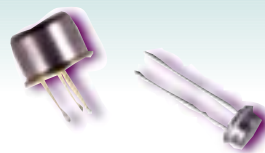
System specifications:

- Measurement: Moisture, nitrogen, oxygen, argon, carbon dioxide, hydrogen, helium, fluorocarbons, hydrocarbons and most solvents to ppm levels
- Device types: Cerdips, sidebraze, flatpacks, chip carriers, cerpacks, TO's, relays, multi-chip modules, lamps and other hermetic enclosures
- Device volume: 0.01cc - 20cc and larger
- Sensitivity: Better than 100 ppmv for moisture and better than 10 ppmv for other gases
- Accuracy: Better than +/- 10% at 5000 ppmv for moisture
- Throughput: Up to 10 samples per hour depending on sample type



IVA 110-s Internal Vapor Analyzer

For more information
about the IVA 110-s,
contact Dan Rossiter
in the Technology
Development Group.



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