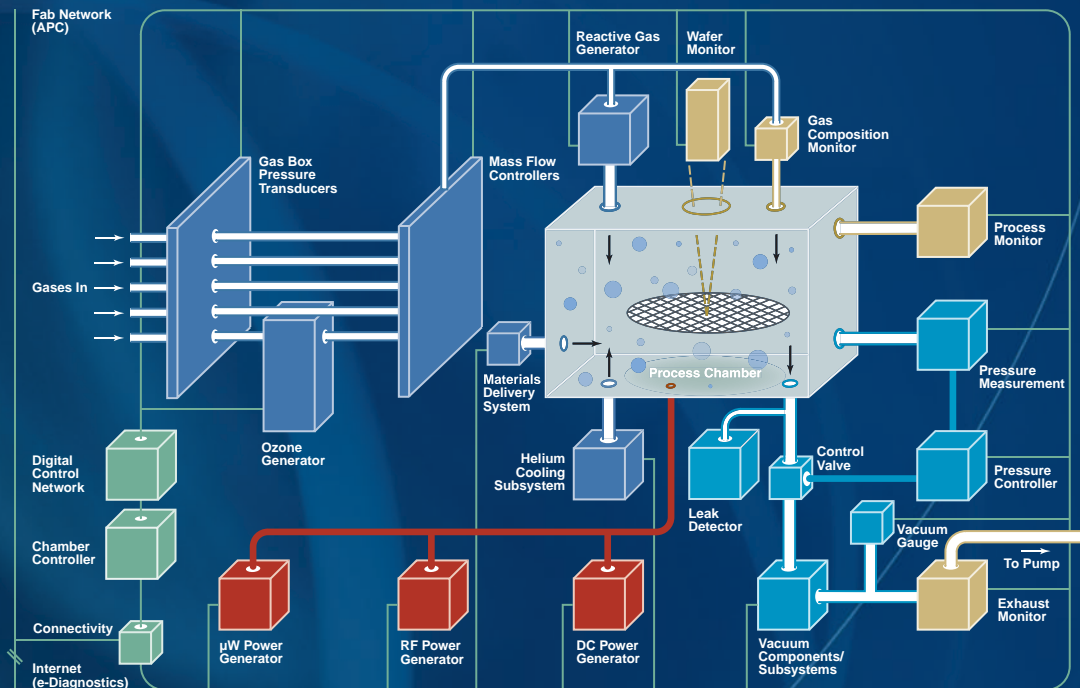


Portable Helium Leak Detection



MKS — The world's broadest source of control products for today's advanced processes

MKS Instruments is a leading global developer and manufacturer of instruments, components and subsystems that measure, control, power, monitor and manage critical processes in advanced manufacturing environments such as semiconductor, flat panel display, data storage, medical imaging equipment, biopharmaceutical and optical. MKS has extensive applications expertise in the areas of materials flow, chemical composition, pressure and vacuum technology, power delivery, reactive gas generation and information management. By building this expertise into every MKS product and by combining those products and technologies into integrated subsystems, MKS is able to provide best-in-class solutions that improve productivity and solve process challenges for OEM and end-user customers. MKS is anchored by organizational strength and renowned manufacturing, and offers complete localized technical support to its customers around the world.



Truly Portable Helium Leak Detection

The PICO® family of helium leak detectors is the most compact, lightweight and portable series of mass spectrometer-based detection instruments available. Providing fast, contamination-free leak detection, the design incorporates patent-pending advances and miniaturization in mass spectrometry and vacuum technology. The small size of the PICO detector significantly reduces start-up, response and clean-up time.

The PICO detector design also includes self-protection circuitry that safeguards the instrument from damage in harsh environments. Available for both vacuum and sniffing operation, the PICO detector is lightweight, truly portable and has the reliability and sensitivity for accurate, trouble-free measurement.



●●● PICO® Vacuum Leak Detector

Conventional vacuum helium leak detectors are bulky, very heavy and require cumbersome carts to move them throughout the workplace. Weighing just 17 pounds, the PICO detector can be easily transported and is fully operational in the most tightly confined working environments.

●●● PICO® Sniffing Leak Detector

The PICO Sniffing leak detector has the same advanced mass spectrometer-based design as the PICO Vacuum leak detector. This unit includes a rugged probe with a field replaceable filter which extends a full 20 feet for hard to reach locations. For ultimate portability, the Sniffing PICO detector has optional battery operation capability.



Highly Sensitive Mass Spectrometer-Based Measurements

To ensure measurements are reliable, stable and accurate, the PICO Vacuum detector design is based on mass spectrometry with a minimum detectable leak of 1×10^{-10} atm cc/s.



Typical Applications

Typical use of a helium leak detector is to locate holes or imperfections in a product or system. Measurements are generally performed in two ways, either by vacuum or sniffing. In vacuum measurement (or “outside-in” measurement) a leak detector is connected to the vacuum system. The system is evacuated and helium is sprayed in the suspect area. If helium is detected, the leak is confirmed. In the case of sniffing (or “inside-out” measurement) helium is pumped into the object and a probe is used to “sniff” around the outside to locate escaping helium.

Applications include, semiconductor manufacturing, air conditioning systems, automotive assembly, refrigeration systems, chemical, medical, petrochemical and pharmaceutical industries, power plants, aerospace, the high purity gas industry, underground utilities, and research and development applications.

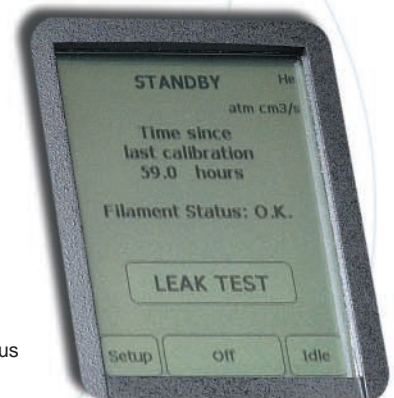
Simple Operation with Graphical and Audible Indicators

Operation of the PICO detector is simple and self-intuitive. The user interface is a back-lit touch-screen display which provides a visual indication of helium leak rate and graphical trending data. Visible diagnostic messages alert the user of PICO status. An adjustable audio signal ensures that the PICO detector can be heard even in the noisy environments often encountered in leak detection applications.



Standby Screen

Provides information on filament status and time since last calibration.

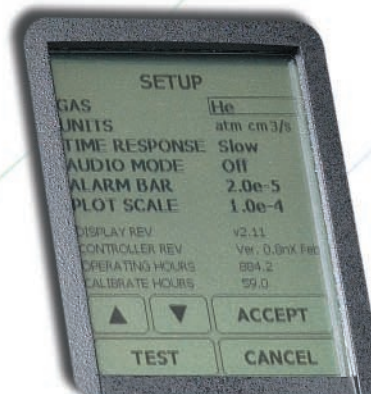


Leak Test Screen

Provides visual indication of realtime leak rate and trending information.

Setup Screen

Allows the user to easily change the basic settings of the leak detector including leak detection units, audio mode, and alarm settings.



Accessories

To augment the truly portable nature of the PICO Helium Leak Detector product line, MKS offers several accessory products. The hard-sided, rolling carrying case provides protection during travel—whether inside the facility or around the world. The optional battery pack and re-charger ensures that a charged battery is always on hand when you need it. Additionally, an optional sniffing probe is available for the PICO Vacuum Leak Detector. For applications requiring data acquisition and reporting, RS232 communications is available for both leak detector versions.



Optional Battery Operation

No longer must you rely on proximity to electrical outlets. The PICO Sniffing helium leak detector is available with an optional, rechargeable, lithium ion battery pack with a typical life of 2.5 to 3 hours. The battery option includes the necessary hardware for the leak detector, a separate battery charger, and 4 lithium ion batteries.



Sniffing Probe

Available for the PICO Vacuum Leak Detector, an optional 10, 15, or 20 ft. sniffing probe can be used for pressurized applications. With the optional sniffing probe, the Vacuum Leak Detector is able to perform both vacuum and sniffing leak detection with one instrument.



Carrying Case

For travel, storage and convenience, each PICO detector includes a custom, 2-wheel carrying case. Designed to protect and store the PICO detector, the case has an integral handle and wheels for easy transport.





MKS Leak Detection

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