

The HELIOT MONO is a compact helium leak detector designed specifically for integration into automated leak-testing systems and production equipment. Its high-speed exhaust system and optimized measurement design enable shorter test cycles and improved production throughput, making it ideal for manufacturing environments.

With a compact footprint (360 × 229 × 310 mm) and lightweight design (≈13 kg), the HELIOT MONO can be easily installed in equipment where space is limited while still delivering high-performance leak detection.



Typical Applications

- **Automated Leak Test Systems:** Ideal for integration into automated leak-testing equipment used in the automotive, air-conditioning, and refrigeration industries, where fast and reliable detection is required for components such as heat exchangers, evaporators, condensers, fuel systems, and sealed assemblies.
- **Packaging and Container Integrity Testing:** Suitable for leak testing of industrial containers, food packaging, and pharmaceutical packaging, helping ensure product safety, quality, and regulatory compliance.
- **Helium Flow and Permeation Measurement:** Can be used for quantitative measurement of helium flow rates and permeation, supporting material testing, seal verification, and quality control in research and manufacturing environments.
- **Production Line Quality Assurance:** Well suited for high-volume manufacturing environments where consistent leak detection and short cycle times are critical for maintaining production efficiency and product reliability.

Key Features & Advantages

- **Reduced Takt Time for Production Testing**

A dedicated exhaust system optimized for leak testing enables fast measurement cycles. With a high pumping speed of 3.0 L/s and measurement pressure of 100 Pa, the HELIOT MONO helps reduce overall test time and improve production throughput.

- **Compact Design for Flexible Equipment Layout**

This unit features a compact footprint (W360 × H229 × D310 mm) and lightweight design (13 kg). All service and connection surfaces are accessible from one side, simplifying installation. The detector can be installed vertically or horizontally, allowing flexible integration into various equipment configurations.

- **Display-less Operation for System Integration**

All settings and operation can be managed via PC control, enabling a display-less configuration when installed in automated equipment.

- **Optional Built-in Control Sequence**

An optional built-in valve control sequence for the vacuum chamber leak testing method allows the system to operate without requiring a separate control program from the host equipment.

- **Helium and Hydrogen Leak Detection**

In addition to helium, the HELIOT MONO also supports hydrogen tracer gas leak detection, providing flexibility for a wider range of testing applications.

- **Copper-Free Gas Contact Surfaces**

All gas-contacting components are copper-free, making the system suitable for environments such as rechargeable battery manufacturing, where copper contamination must be avoided.

Specifications

Measurement Gas	Helium ⁴ He, Hydrogen ² H ₂
Helium measuring range	0.01x10 ⁻¹⁰ to 10 ⁻⁴ Pa·m ³ /s
Hydrogen measuring range	0.01x10 ⁻⁸ to 10 ⁻⁴ Pa·m ³ /s
Pumping speed@100Pa	3.0 l/s
Measuring pressure	100 Pa or less
Input power supply voltage	DC 24V±5% (10A)
External control	Input/output I/O (Normally open/normally closed) Serial interface (RS232C/RS485) DC0-10V Analog output (leak rate/pressure) USB (with Windows software "HELIOT monitor") Compatible with HELIOT700/710/900/ZERO