

PRODUCT TECHNICAL BRIEF

E084 Internal Calibrated Leak, Part No. 121528S

E084 Internal Calibrated Leak, Part No. 121528S -
LeakLab solutions for leak testing, vacuum systems and
test equipment.

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Technical Data

PARAMETER	PUBLISHED VALUE / INFORMATION
Parameter	Description
Product	Internal calibrated leak for a helium leak detector
Designation / part number	E084 / 121528S
Purpose	Reproduces a reference helium flow for internal calibration and leak-detector sensitivity checks
Installation	Built-in module used as the instrument's internal calibration source
Tracer gas	High-purity helium
Typical flow region	Low reference flow suitable for checking sensitivity and linearity in the microleak and nanoleak region; use the value stated in the individual calibration documentation
Compatible systems	Helium mass-spectrometer leak detectors designed for the E084 module
Functions	Periodic automatic calibration, zero-line checks, sensitivity checks and rapid assessment of the instrument measurement path
Benefit	Practical effect
Stable flow	Reproduces a consistent helium flow under the recommended operating conditions
Repeatability	Provides a repeatable calibration signal over successive calibration cycles
Integrated operation	Requires no external connection or additional valve hardware during normal internal calibration
Reduced downtime	Enables a quick instrument check at the operator's workstation
Measurement assurance	Supports internal procedures and applicable documentation for leak-tightness testing
Service	Scope

PARAMETER	PUBLISHED VALUE / INFORMATION
Internal-leak diagnostics	Check the instrument response to its internal calibrated leak, assess signal stability over time and compare the measured flow with the documented value
E084 replacement	Remove the previous module, install an E084 (121528S), check connection leak tightness and confirm operation in the detector
Leak-detector maintenance	Service the vacuum section, inspect cathodes and Pirani sensors, test internal and external calibrated leaks, and configure operating modes for the application
Calibration support	Coordinate calibration through an appropriate metrology provider and prepare supporting records for leak-testing audits
Operator guidance	Explain routine internal-calibration checks, typical fault indications and actions to take if E084 degradation is suspected

Technical and Project Information

The E084 internal calibrated leak (121528S) is a built-in helium reference source for compatible helium mass-spectrometer leak detectors. It supports automatic calibration and sensitivity checks, helps identify measurement-channel drift and reduces the risk of unreliable leak-test results. LeakLab can supply and replace the E084 module as part of leak-detector service work; contact us to confirm compatibility and availability.

LeakLab supplies and services components for helium leak detectors.

E084 (121528S) Internal Calibrated Leak for Helium Leak Detectors

The E084 internal calibrated leak, part number 121528S, is a built-in helium reference source intended for automatic calibration and sensitivity checks of compatible helium mass-spectrometer leak detectors. A correctly operating internal leak helps maintain stable instrument performance without an external reference source and shortens calibration downtime.

The E084 provides a stable, limited helium flow within its specified range. It is installed in leak detectors used to test vacuum and gas systems in industrial applications.

Technical Overview

Operating Principle

The E084 consists of a sealed helium reservoir and a stable metering element. The element admits a limited, repeatable helium flow into the leak detector measurement path. The flow is set during manufacture and confirmed during calibration of the gas-flow measure.

When an instrument starts its calibration sequence, its vacuum system connects to the internal leak, measures the response and adjusts the applicable gain coefficients and trigger thresholds. This allows the instrument to:

- check sensitivity within its operating range;
- identify measurement-path drift and the need for service;
- confirm readiness before leak-tightness testing.

Role in Leak-Test Measurement

The E084 is part of the helium leak detector's measurement chain. Its stability and correct operation affect the lower detection threshold, the reliability of displayed leak-rate values and comparison with acceptance criteria.

If the internal leak degrades because of reservoir ageing, a change in helium pressure or mechanical damage, the instrument may continue to operate while producing incorrect results. Diagnosis and timely replacement of the E084 should therefore form part of planned leak-detector maintenance.

LeakLab Service Options

Supply and Installation

The E084 (121528S) may be supplied as a replacement module or installed as part of leak-detector service work. Availability, detector compatibility, delivery destination and on-site service scheduling must be confirmed for each order.

A broader service program can also include planned internal-leak replacement, vacuum-pump maintenance, vacuum-system diagnostics and updated test records, subject to an agreed scope of work.

Operating Recommendations

- Operate the leak detector within the temperature and humidity ranges stated in its manual.
- Run internal automatic calibration at the prescribed intervals and record the results.
- If the signal becomes unstable or its level changes sharply, diagnose the system and replace the E084 if required.
- Protect the instrument from impacts and vibration that could damage the leak body or internal metering element.
- Arrange complete leak-detector maintenance at the intervals appropriate to the instrument and application.

Contact LeakLab to confirm E084 (121528S) compatibility, supply options, installation and technical support for your helium leak detector.

- Helium Reference Leaks
- Scanning Electron Microscopes
- Leak-Detector Accessories Leak-Detector Spare Parts Vacuum-System Filters and Traps
- Leak-Detector Spare Parts
- Vacuum-System Filters and Traps

WORLDWIDE PROJECT CONTACT

Send the test object or system, operating conditions, target sensitivity or pressure range, applicable standard, destination country, quantity and schedule. LeakLab will review the project scope.

mail@leaklab.org

Regarding: E084 Internal Calibrated Leak, Part No. 121528S

Specifications, standards, verification scope, availability and commercial terms must be confirmed for the exact configuration and destination jurisdiction before order or project acceptance.