

ULTRA HIGH SENSITIVITY TRACE GAS LEAK DETECTOR FOR ACCURATELY LOCATING AND QUANTIFYING LEAKS

The high specification QUALICHEK 200 is the ultimate in instrumentation for high sensitivity trace gas leak detection and is designed to locate and quantify leaks in a wide range of applications.

- Portable and easy to use
- Responds to SF₆, refrigerant R12 and other electron capturing compounds
- Fast response and recovery
- Locates position of leaks
- Quantifies the leak rate
- Displays leak rate or concentration
- RS232 serial printer interface
- 0-2 volt analogue output
- User adjustable audible alarm level
- Measurement store facility
- Simple user calibration procedure
- In-built fault diagnosis

The QUALICHEK 200 is a portable instrument, comprising a carrying case containing the power supply and electronics, a small cylinder of compressed argon gas, and the main display panel. The detector is mounted in a hand held probe, attached to the main unit by means of a 3.5 meter umbilical connection. A display panel is mounted in the hand probe to enable the operator to monitor measurements even when working in difficult locations.



The QUALICHEK 200 with optional calibration kit.

The instrument is extremely easy to use, and provides highly accurate leak rate measurements. The response is almost instantaneous and the detector recovers quickly, even after exposure to high concentrations of trace gas.

Where products are manufactured or maintained to a high leak tight specification the QUALICHEK 200 is an invaluable aid in ensuring quality.

QUALICHEK 200 facilities

- Adjustable audible alarm, activated when user set leak rate is exceeded
- Factory calibrated for SF₆ and refrigerant R12. Calibration for other electron capturing gases optional
- Simple user recalibration facility
- Diagnostic menu identifies fault conditions

Highest performance

The trace gas technique involves pressurising the test component with a gas which is then detected as it escapes through any leak. Using an optimum combination of trace gas and detector, extremely small leaks can be identified and measured.

The QUALICHEK 200 is equipped with one of the most sensitive gas detection systems ever developed, the Electron Capture Detector (ECD) which is highly selective, responding only to compounds that exhibit a high affinity for electrons.

Ideally a tracer gas for leak detection should be:

- inert, non-toxic and non-corrosive
- not normally present in the atmosphere
- readily available
- detectable at very low concentrations

Sulphur hexafluoride (SF₆) satisfies these requirements and, due to its strong electron capture character, can be detected in extremely low concentrations using an ECD. For these reasons SF₆ and the ECD are the ideal combination for many leak detection applications.

Wide Application

The QUALICHEK 200 has been used for process and quality assurance on a broad range of products which include

- High voltage switchgear
- Fume cupboard and glove box containment checks (Method ASHRAE 110 approved)
- Leaks in military equipment, eg missiles, mines and torpedoes
- Testing fire extinguishers
- Checking hazardous materials storage vessels
- Building ventilation rate studies

In some instances the product itself is pressurised with a gas suitable for leak detection, e.g. refrigeration systems (halogenated hydrocarbons) and high voltage switchgear (SF₆). In others, trace gas is inserted into the item prior to the test being performed, at a concentration (often as low as 1%) selected to provide the sensitivity needed.

For applications which involve the checking of multiple potential leak sites, the instrument can store up to 100 results; these can be printed later, annotated with date and time of the measurement.



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ACCESSORIES

Standard Leak Kits

These consist of a 600 mL cylinder containing pressurised SF₆ (or a mixture of SF₆ in N₂), fitted with a pressure gauge and an outlet restrictor manufactured to provide the required leak rate. Standard leaks ranging from 1 x 10⁻⁶ to 1 x 10⁻⁴ mL/s are used for calibrating and checking the instrument, and are certified to traceable National Standards.

SPECIFICATION

Detection Limits

Leakrate:	1 x 10 ⁻⁸ mL/s SF ₆ (with optional capillary inlet, 1 x 10 ⁻¹⁰ mL/s SF ₆)
Concentration:	0.01 ppm
Size:	Case: 43 x 40 x 23 cms (17"x 16"x 9")
Weight:	Hand Held Probe: 0.9 Kgs (2.0 lbs)
Radioactive Source:	10 mC Ni ⁶³ (370 MBq)

Due to a programme of continuous development, specifications may be changed without notice.

USON also designs, manufactures and supplies:

Air pressure decay and flow detectors

Flexible packaging leak testers

Trace gas leak detectors

Gas chromatography instrumentation

**For more information on the product ranges visit
web site: <http://www.ai-leaktest.com>**

Distributor