



Advanced Leak Detection System

OVERVIEW

The Canary PICO from Project Canary is a compact, highly sensitive natural gas leak detection system with integrated GPS. This cutting-edge tool combines real-time laser absorption spectrometry with unmatched precision. Backed by Project Canary's industry-leading expertise in emissions data, the PICO delivers the reliability and accuracy utilities need to confidently investigate indications – all seamlessly integrated with a robust software platform.



Key Features

- ✓ **Unparalleled Sensitivity:** Detects CH₄ at <math><1\text{ppb/s}</math> and C₂H₆ at <math><500\text{ppt/s}</math>, with 30x greater ethane sensitivity than other systems.
- ✓ **Portable and Lightweight:** Up to 10x smaller and lighter than competing devices.
- ✓ **Pump Enabled:** Operates independently of wind conditions for more consistent sample measurement.
- ✓ **High Precision GPS:** Includes a mounted GPS antenna for accurate location tracking, enhancing field mapping precision.
- ✓ **Real-Time Data and Connectivity:** Directly integrated with Canary SENSE software with breadcrumbs and methane/ethane readings.
- ✓ **Energy Efficient:** Consumes just 15W for extended field use.
- ✓ **Robust Design:** Features a solid optical platform that's 100x more resilient than cavity-based systems, increasing the speed of investigations and pinpointing leaks.

How It Works

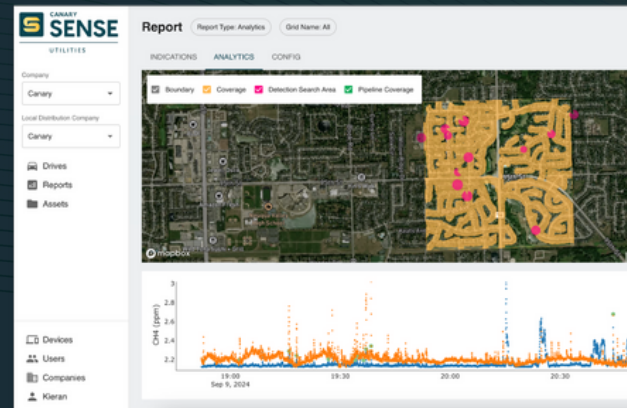
Operating in the mid-IR, Canary PICO utilizes advanced MIRA laser technology for real-time ethane and methane measurements, distinguishing natural gas from other sources like landfill and livestock emissions. This capability offers a level of discrimination that is 30 times more effective than standard laser-based analyzers and rivals mass spectrometric methods without the need for complex sample handling.

ADVANCED LEAK DETECTION AND ANALYSIS

Canary's measurement expertise enables utilities to gather a cohesive picture. The Canary PICO's high sensitivity enables precise thermogenic versus biogenic source discrimination, providing near-instant ethane-methane correlation to eliminate false alarms. This accuracy is essential for pinpointing leaks even in complex environments, from dense urban areas to remote locations.

Direct Integration into Canary SENSE Utilities

Project Canary's advanced analytics and web-based tools provide remote access to survey data, empowering users to analyze leak information from any internet-enabled location. The integration with Canary SENSE offers utilities a unified platform for emissions management, centralizing all relevant data for seamless compliance, reporting, and leak repair initiatives.



METRIC

SPECIFICATION

Measurement method	Mid-Infrared Laser Absorption Spectroscopy
Species, Sensitivity	CH ₄ : <1ppb/s, C ₂ H ₆ : <500ppt/s
Drift, σ	30ppb or 1% of reading over full temp range
Temp/Humidity	"10-40°C, 10 to 95% RH (non-condensing)"
Concentration Range	Configurable, ppb to % levels
Size	11.5" W x 8" D x 3.75" H (Pico Version)
Weight	2.75 kg (6lbs)
Power Consumption	15W
Voltage, Current	12-15V DC: 1.5A, 110-220VAC: 0.2A
Interface/Outputs	Wi-Fi, RS-232, analog output (optional)
Memory	32GB
Data Update Rate	1 or 2 Hz