



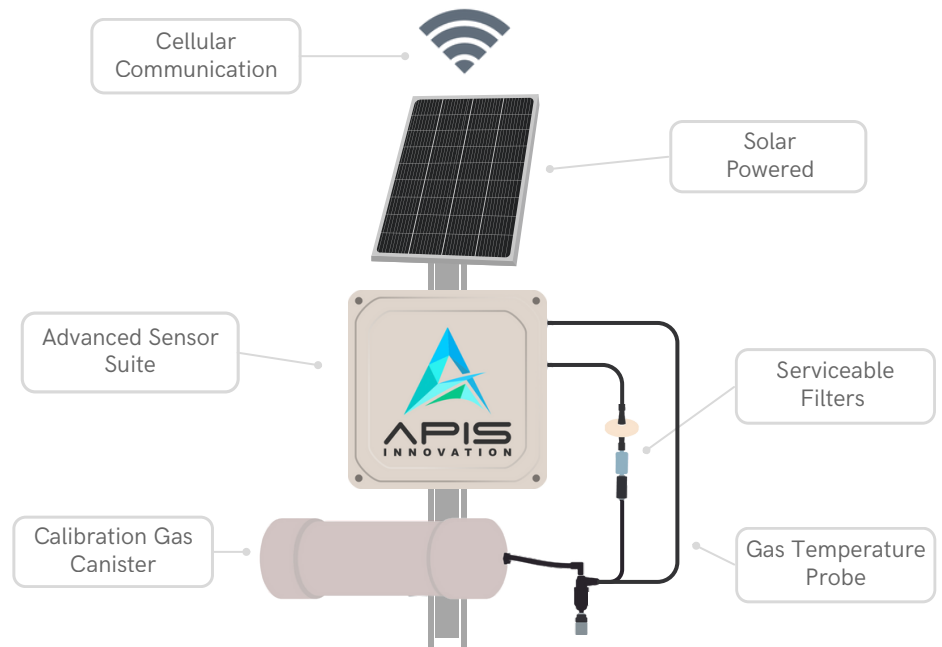
PRODUCT BRIEF

headerMonitor



The Apis headerMonitor delivers real-time visibility into landfill gas (LFG) systems—powered by solar, connected via cellular, and fully integrated with the Apis Cloud platform.

Need to connect existing sensors? Our cloudConnector add-on ties into a sensor's power source, read the 4-20mA signal from devices like thermal flow meters, and transmit the data to the Apis Cloud—bringing legacy infrastructure online with ease.



Main Benefits



Power System

Solar battery system with 10-day life without sun and under 2 days to fully recharge.



Calibration

Auto-calibration every 1-7 days; pressure transducers auto-zero with each sample.



Measurements

Taken once per hour by default using solar power.



Communication

Options for Cellular LTE CAT-M1, 2.4Ghz Mesh, Bluetooth 5.

Sites choose headerMonitors for precise, reliable landfill gas data and seamless system integration. Apis devices provide real-time insights that reduce manual data collection and enhance measurement accuracy. Technicians leverage this data as a field tool to quickly identify and resolve issues, leading to faster responses, optimized system performance, and continued compliance. Apis Cloud delivers full visibility with map-based views, trend tracking, and system-wide dashboards, empowering teams to make data-driven decisions and drive ongoing improvements.

For More Information:

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Installation

Apis headerMonitor devices were designed for simple installation and easy relocation.

During installation, the device is mounted to the gas line using unistrut. Apis then drills and taps two ports in the HDPE gas line—one for a pitot tube and one for a temperature probe—before connecting all tubing and wires.

Once installed, the device self-calibrates using an attached calibration gas canister and begins hourly landfill gas measurements. For steel gas lines, a ¾" NPT port must be provided for pitot tube installation. In these cases, a gas temperature probe is not installed.



Parameters Measured

Our system delivers reliable connectivity, supporting both U.S. and Canadian cellular networks. Security is prioritized with data encryption and regular updates. Each headerMonitor captures key landfill gas parameters with high accuracy. See below for sensor ranges and specifications:

Sensor Parameter	Range	Accuracy
CH4 <i>infrared</i>	0 to 100%	± 0.5%
CO2 <i>infrared</i>	0 to 100%	± 0.5%
O2 <i>optical</i>	0 to 25%	± 0.1%
Bal <i>calculated</i>	0 to 100%	± 1.15%
Optional H2S <i>electro-chemical</i>	0 - 5,000 ppm	Estimated ± 50 ppm
Static Pressure	-5 to 5 <i>in w.c.</i> -135 to 135 <i>in w.c.</i>	± 0.15 <i>in w.c.</i> ± 0.25 % of reading
Differential Pressure	-2 to 2 <i>in w.c.</i> -27 to 27 <i>in w.c.</i>	± 0.01 <i>in w.c.</i> ± 0.25 % of reading
Flow Measurement	Orifice, Venturi, or Pitot options	Varies per meter
Gas Temperature	-40 to 257 <i>degrees F</i>	± 1 <i>degrees F</i>
Barometric Pressure	8.9 - 32.5 <i>in. Hg</i>	± 0.03 <i>in. Hg</i>