

Methane point instrument



Catch every leak with accuracy using methane detection that scales



Sensitivity:

Leaks as small as 0.4 kg/h



Emission localization:

Accuracy of within 19.7 ft [6 m]



Accuracy:

Estimates leak rate within a factor of two, 68% confidence



Plug and play, self-installed:

Mounts in minutes with no specialized tools

Applications

- Monitor for methane emissions 24/7 in real time
- Detect leaks for repair
- Quantify emissions for reporting
- Compliance with continuous monitoring requirements outlined in EPA OOOOa/b/c regulations

For oil and gas production and processing facilities, onshore, and remote facilities almost anywhere worldwide.

How it is unique

- Detects, localizes, and quantifies methane emissions
- Self-installed, plug-and-play instrument mounts in minutes with no specialized tools
- Streams data automatically upon deployment; access and manage data within our methane digital platform or within your own infrastructure
- Maintenance-free, 10-year lifetime
- Humidity-controlled, fully calibrated, drift-free methane sensor
- Anemometer on every device maps the full wind field
- Quantity and location of devices are determined using our prevailing meteorological conditions planning algorithm
- Accurate emission localization and rate quantification using our advection-diffusion under turbulent interpretation algorithm
- Designed for >95% uptime
- Continuous performance validation and improvement through third-party blind testing
- Versatile mounting, power, and connectivity options

How it reduces emissions

Many oilfield methane emissions come from sources that leak and vent intermittently during normal operations. Continuous monitors can measure these emissions more accurately than is possible with mobile sensors mounted on satellites, airplanes, or drones.

The [methane point instrument](#)* from [SLB End-to-end Emissions Solutions](#) is designed for continuous monitoring at sites such as well pads and tank batteries. It uses a network of fully calibrated point sensors installed on the site's perimeter to measure methane concentration, as well as an interpretation algorithm optimized in one of the world's largest wind tunnels.

The instrument precisely records the start and stop of emissions, pinpoints their locations, and quantifies their emission rates. Its performance—including the ability to detect small methane leaks sensitively and quantify the emission rate accurately—is proved through multiple third-party tests, including at the Methane Emissions Technology Evaluation Center (METEC) and Texas Tech University.

How it works

The methane point instrument is a self-installed device for methane emission detection. Beginning with a map of your site and a history of weather conditions in your region, SLB uses its proprietary prevailing meteorological conditions planning algorithm to determine how many instruments are needed for your location and optimizes where they should be mounted.

Fully integrated sensors are then shipped to your location. The devices are approximately 1.6 ft [49 cm] tall and weigh about 2.6 lbm [1.2 kg] and can be installed by your personnel in minutes with no specialized tools or training required. Instruments are typically mounted on existing infrastructure, powered by integrated solar panels, and connected automatically to the global LTE-M cellular network. Alternative mounting, power, and communication options are available, if needed.

Once installed, sensor data can be automatically streamed and displayed within our [methane digital platform](#) to seamlessly access and manage monitoring services, data, and analytics. The data are interpreted using our proprietary advection-diffusion algorithm to quantify emission rates, identify emission start and stop times, and localize emission sources. Users can log onto the platform and intuitively access real-time emission data, emissions history, and emissions trends.

The methane point instrument offers precise and validated continuous measurement of methane emissions. It is designed as a self-install system that can be locally manufactured and deployed across a wide range of facility types. The instrument is available for all your global assets and is specifically designed to facilitate continuous monitoring throughout your organization.



4 in [10.16 cm] diameter

A compact device with integrated solar panels and an anemometer, the methane point instrument can be self-installed in minutes at near-zero installation cost.

Methane point instrument



Methane Point Instrument Specifications

Instrument performance	Limit of detection: 0.4 kg/h, 90% probability of detection	System	No moving parts, no fan
	Estimates leak rate within a factor of two, 68% confidence		No maintenance required
	Emission localization accuracy within 19.7 ft [6 m]		10-year lifetime
Methane concentration sensor	1-ppm threshold		Continuous system health monitoring
	Fully calibrated, automatic recalibration, if necessary	Size and weight	4 in [10.16 cm] diameter and 1.6 ft [49 cm] height
	Humidity controlled		2.6 lbm [1.2 kg]
	Dust protected	Cloud interface	24/7 with real-time display of emissions
Sensors	Atmospheric temperature, humidity, and pressure		Real-time alerts
	Wind speed and direction from ultrasonic wind sensor		If required, can be integrated with other measurements in the methane digital platform
	Solar radiation	Certification	UL certified
	Acceleration (tilt detection)		CE certified
	GPS location and time synchronization	Environmental	Storage temperature, unpowered: -67 to 158 degF [-55 to 70 degC]
Algorithms	Prevailing meteorological conditions planning algorithm to optimize the number and location of devices to be deployed		Survival temperature rating: -40 to 140 degF [-40 to 60 degC]
	Advection-diffusion under turbulent conditions interpretation algorithm to quantify emission rate, identify emission start and stop times, and localize emission source		Operational temperature rating: -4 to 140 degF [-20 to 60 degC]
Installation	Self-install		IP65 water resistance
	No specialized tools or training required		0% to 100% humidity
	Can be mounted to existing infrastructure		Up to 3-ft [91-cm] drop per ASTM D3332 Standard
	Connects directly to the LTE-M cellular network globally		
	Powered by integrated solar panels		
	Internal battery supports 30 days operation		
	Custom mounting, connectivity, and power options are available		

All specifications are subject to change without notice.

