

HI-FLOW 2 – Meeting & Exceeding the High-Volume Sampler Demands of OOOOb



A high-volume sampler that complies with OOOOb and ACR methodologies

The Sensors Emissions Measurement Technology (SEMTECH) HI-FLOW 2 is a high-volume sampler that offers both accurate quantification of fugitive methane emissions and ease of compliance with OOOOb.

Features:

- Battery-powered, handheld high-volume sampler
- Cutting-edge flow and gas sensing technologies
- Leak quantification in the 0.0005 to 25 CFM (0.015 to 700 lpm) range with accuracy within 5%

HI-FLOW 2 meets the demands of the EPA's OOOOb

OOOOb DEMANDS

HI-FLOW 2 BENEFITS

LEAK DETECTION

- Flow measurement devices must “have a measurement range over the entire expected range of flow rates sampled.”
- Devices are required to have a measurement range over “the entire expected range of concentrations.”

- Offers a best-in-class dynamic range of 0.0005 to 25 CFM.
- Encompasses the expected range of sampled flow rates and concentrations.

TRAINING

- Fugitive emissions monitoring plans and survey records must include the “training, and experience of the operator(s) performing the survey.”

- Distributors train operators to meet the mandated training requirements of OOOOb. Support resources include:

- Service
- Technicians
- Commissioning
- Software resources
- Trained distributors
- Consultancy

COMPLIANCE

- Gas concentrations and flow rates must accurately be within 5%.
- 3 separate 1-minute measurements must be collected to determine a leak’s average leak rate. The difference between these samples must be less than 10%.
- Methane gaseous calibration cylinder standards must be used to challenge each sensor prior to and at the end of a testing day.
- The cylinder value and a sensor reading must be less than 5% in difference of the respective calibration gas value at each point.
- If the check fails at either point, the data from all tests performed prior to the previous passing calibration check must be invalidated.

- Manufactured to meet a higher accuracy of 2.5% for gas concentrations and flow rates.
- Comes with web-based software that generates reports in full compliance with OOOOb. All metrics associated with sensor testing, measurements, and leak detection are collected and formatted for appropriate report submission.
- Has easily demonstrated compliance to the requirement that the relative difference between the three 1-minute measurements is less than 10%.
- In-unit software delivers linearity performance validation and compliance information.

Annual Integrity Requirements of OOOOb

Additionally, OOOOb requires that flow measurement sensors are calibrated annually. As shown in Sensors, Inc.'s calibration certificates, the HI-FLOW 2 is calibrated annually:





Methane Analyzer Linearity Results

Statistic	Result	Criteria	Pass/Fail
Intercept	-0.013%	1.000	Pass
Slope	0.996	1.000	Pass
SEE	0.996	1.000	Pass
R ²	1.000	1.000	Pass

Sensors also receive initial calibration for linearity and accuracy to 2.5%. This initial calibration is checked every 12 months and bi-annually to 5% criteria. This calibration schedule meets OOOOb's initial and semi-annual calibration requirements.

Description	Test date	Due date	Pass/Fail
Methane sensor Linearity and accuracy (2.5% criteria)	March 14, 2024	Initial installation or every 12 months	Pass
Methane Sensor span and dilution calibration	March 14, 2024	Initial installation	Pass
Methane sensor Linearity and accuracy (2.5% criteria)	March 14, 2024	Initial installation or every 12 months	Pass
Methane sensor interferences	March 14, 2024	Initial installation	Pass

Design requirements of OOOOb

According to OOOOb: "The methane sensor(s) must be selective to methane with minimal interference, less than 2.5 percent for the sum of responses to other compounds in the gas matrix. You must document the minimal interference though empirical testing or through data provided by the manufacturer of the sensor."

The HI-FLOW 2 meets NIST traceable certification to <2.5%:

Gas	Bottle value (ppm)	Measured CH4 (ppm)	Interference (%)	Pass/Fail
Ethane	405	-4	-1.1%	Pass
Propane	2653	-4	-1.1%	Pass

Learn more about the HI-FLOW 2 high-volume sampler

Access more information about the HI-FLOW 2, including technical specs and its ease-of-use features. Visit sensors-inc.com.