

# GAS FLOW METER 2.0



The Gas Flow Meter 2.0 (GFM 2.0) is the next generation High Volume Sampler designed for EPA Compliance with OOOOb and Subpart W Greenhouse Gas Reporting. The GFM 2.0 was designed and manufactured exclusively by AddGlobe, LLC. AddGlobe has over 17 years of experience and expertise in High Flow Sampling and was the largest global supplier of the Bacharach Hi Flow Sampler.

The GFM 2.0 is a portable, intrinsically safe, rechargeable direct measurement tool which quickly quantifies precise leak rates of 99% of fugitive methane emissions.

## GAS FLOW METER 2.0 & DIRECT MEASUREMENTS

The GFM 2.0 performs fast, accurate leak measurements by using a high flow rate of air and a modified enclosure to completely capture gas leaking from the component. Intrinsically safe Non-Dispersive Infrared optical sensors with a wide temperature range are used to measure the natural gas concentration in the air stream of the system. The measuring system contains additional sensors to indicate the volume of oxygen in the gas stream allowing for gas density to be corrected and the influence of high-order hydrocarbon impurities to be eliminated. This proprietary Oxygen Displacement Method allows the GFM 2.0 to make precise leak measurements within +/- 5% accuracy.



## FEATURES AND BENEFITS

- Intrinsically Safe, Class I, Div 2
- Most portable, lightweight sampler at 9.4 lbs (4.2 kg)
- Rechargeable LiPo battery with 8+ hours continuous run time and 65+ hours standby time
- EPA OOOOb and Subpart W Compliant
- Bluetooth interface for any Android device 6.0 or higher (Android Armor X with preinstalled software included)
- Sampling attachments included
- Easy to operate
- Third Party Tested at CSU/METEC
- High accuracy readings: +/- 5%
- Wide operating temp: -4° to 122° F, -20° to 50° C
- Proprietary Oxygen Displacement Method for higher accuracy of Methane Leak Rates
- Adjustable gas density settings to meet specifications of a given distribution network
- Smart filter/sensor block design for DIY filter and sensor replacement
- IP68 rating (ingress protection) against dust and rain

# TECHNICAL SPECS



Display	Graphic TFT display
Control Buttons	On/Off
Connection	Bluetooth, USB
Software	Android (OS version 6.0 or higher) Applications for GFM Operation and Calibration preinstalled
Graphic TFT Display Measured Values	Sample flow rate Background gas concentration Gas concentration in the sample Battery capacity
Estimated Values	Leakage concentration taking into account the background gas level Leak intensity
Measured Leakage Rate	0.01 CFM to 12.36 CFM; 0.28 to 350.0 l/min; 0.01 to 14.2 kg/hr
Minimum Detectable Leak Rate	0.008 CFM; 0.22 l/min; 0.009 kg/hr
Leak Rate Measurement Error	±5% of reading
Temperature	Operational: -4° to 122° F (-20° to 50° C) Storage: -40° to 140° F (-40° to 60° C)
Humidity	5 to 95% RH (Non-condensing)
Sample Flow Rate	Maximum: 12.36 CFM; 350 l/min; 14.2 kg/hr Medium: 8.82 CFM; 250 l/min; 10.2 kg/hr Low: 5.29 CFM; 150 l/min; 6.10 kg/hr
Method of Measurement	Pressure drop across the Venturi tube
Natural Gas Sensor/Accuracy	Optical method: Nondispersive Infrared Methane Sensor Range from 0 to 100% methane by volume Accuracy is ±5% of reading or 0.1% methane, whichever is greater
Oxygen Correction Method Sensor	Electro-chemical O <sub>2</sub> sensor engaged when the leakage range is from 5 to 100% natural gas by volume Accuracy is ±2.5% natural gas by volume
Battery	Type: Intrinsically Safe, low- temperature rechargeable LiPo Rated voltage: 3.7 V Capacity: 11.0 Ah Charging time: Up to 10 hours Duration of work: 8+ hours (cyclic mode)
Sampler memory	Last 50 hours of work stored
Memory for data, images, video	Limited by phone memory
Dimensions	11.4" x 11.2" x 4" 29cm x 28.5cm x 10cm
Weight	9.4 lb (4.2 kg)
UL Certification	Class I, Div 2

