Volume 44 | August 2025

SEMTECH® GLOBAL NEWS

innovation built on experience

sensors

Sensors, Inc.

Sensors, Inc. Announces Groundbreaking Methane Slip Analyzer

We are pleased to announce that our Engineering team is in the final stages of developing a cutting-edge methane slip measurement instrument specifically designed for oil and gas compressor engines, the new **SEMTECH® Methane Slip Analyzer**. This innovative, portable tool will provide accurate, real-time data to help operators monitor and reduce methane emissions. It will support both regulatory compliance and environmental sustainability. Field testing is scheduled to begin in September 2025.

The Methane Slip Analyzer uses state-of-the-art Tunable Diode Laser Absorption Spectroscopy (TDLAS), tuned specifically to methane, eliminating interference from other gases. It also measures CO and CO_2 emissions with a Non-Dispersive Infrared (NDIR) bench designed for regulatory compliance, and NOx and O_2 using industry-standard electrochemical sensors.

In addition, the Methane Slip Analyzer records pressure and temperature for exhaust flow calculations via third-party pitot tube devices and can interface with CAN-based engine control modules to retrieve parameters such as engine speed and torque. These measurements are then combined to calculate mass emissions in grams per second, grams per gram of fuel, or grams per unit of work over a test cycle.

The Methane Slip Analyzer operates on rechargeable Li-Ion batteries, making it highly portable for field use. Operators can control the instrument through a Wi-Fi enabled web-based GUI that is accessible from tablets, laptops, or mobile devices.

Methane slip is unburned methane released from natural gas-powered engines. It has become a significant environmental concern due to its high global warming potential. Compressor stations, particularly those with aging reciprocating or turbine engines, are major contributors. Combustion slip accounts for approximately 75% of total methane emissions. The Methane Slip Analyzer gives operators the precise tools they need to reduce fugitive emissions, improve engine performance, and meet environmental goals.

Continued on Page 2

Key Features

- Advanced laser based sensor technology for methane specific measurements (CH_4 low and CH_4 high range)
- Exhaust Flow Rate
- CO, CO_2, O_2 measurements for combustion efficiency and air fuel ratio reporting
- NOx measurements for quantifying trade-offs between methane slip and NOx control strategies (e.g., lean-burn vs. rich-burn tuning)
- Dual Stage Chiller for water removal from CNG exhaust sample
- Pressure and temperature measurements for 3rd party pitot tube based exhaust flow measurements
- CAN based interface for engines equipped with engine control modules
- Wi-Fi web-based GUI for interactive full control on user preferred display (tablet, mobile, laptop, ...)
- Powered by Li-Ion batteries

For more information reach out to us at:

sales@sensors-inc.com
+1-734-429-2100

Sensors on the Move

Sensors regularly supports emissions measurement activities from around the globe. By participating in various trade shows to attending or hosting technology, product, and user conferences that attract regulatory agencies and customers alike, there is a wide array of opportunities to meet our team.

Be sure to look for our products and people at these future events:

Fugitive Methane

SHALE INSIGHT® 2025
September 16 - 18, 2025
Erie, PA, USA

CEM - Emissions & Air Quality Monitoring
September 24 - 26, 2025
Ljubljana, Slovenia

CH4 Connections
October 8 - 9, 2025
Fort Collins, Colorado, USA

SEMTECH GLOBAL NEWS

Sensors, Inc. was founded in 1969 and has gone on to become an innovative leader in the supply of gas analysis and particle measurement instrumentation. Powered by employee-owners, the company has built a reputation for engineering excellence, robust manufacturing, and strong customer support.

Sensors, Inc.
6812 State Road
Saline, Michigan 48176
PH: +1 734-429-2100
Website: www.sensors-inc.com
Email: sales@sensors-inc.com