



New QuadraTherm® qMix RealTime Flare Measurement System Delivers Real-Time Measurements of Changing Gas Compositions

Groundbreaking Technology for Oil & Gas Industry to Comply with EPA Regulations

June 12, 2020 – Monterey, California-[Sierra Instruments](#) announces the release of its new breakthrough [QuadraTherm® qMix RealTime Flare Measurement System \(FMS\)](#). For the first time, a system based on [thermal mass flow meters](#) can adjust flow readings when flare gas composition changes within seconds to match real-time readings from a gas analyzer-retaining accuracy without factory recalibration.

Now Oil & Gas Engineers have the perfect solution to comply with EPA Refinery Sector Rule 40 CFR 63 rule which requires refineries to measure and report flare gas measurement at flow rates as low as 0.1 sfps (0.03 smps) where traditional multi-path ultrasonic flow meters can't operate.

The qMix RealTime FMS System harnesses the accuracy and computational power of [QuadraTherm® thermal mass flow meters](#) and the proprietary qMix RealTime software App. Unlike traditional two-sensor thermal mass flow meters, QuadraTherm has four sensors-three precision platinum temperature sensors and one patented no-drift DrySense mass velocity sensor. With this sensor technology breakthrough, accuracy is now twice as good as conventional thermal meters at +/- 0.5% of reading. Flow Range is extended to ultra-low flows down to 0.1 sfps (0.03 smps) to extreme high flows 120,000 sfpm (600 smps) with a 1000:1 turndown which enables high accuracy over a wide range. Sierra's Raptor™ OS is the true "brain" of the instrument and includes a dynamic algorithm set which powers the proprietary Mix RealTime app.

Users can easily integrate with current ultrasonic flow meters to extend the flow range or save money on infrastructure by upgrading the system with one qMix RealTime FMS to meet EPA regulations over the entire flow range.

There are three major components to the qMix RealTime FMS System:

- QuadraTherm 640i/780i Thermal Mass Flow Meter
- qMix RealTime Software Application
- Window-based laptop computer (included)

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qMix RealTime FMS integrates with your current compositional gas analyzer to give accurate flows over a large turndown. When the gas composition changes, the qMix RealTime App, loaded onto the supplied PLC, reads the outputs from your gas analyzer for updated flare gas composition. qMix RealTime creates a new gas composition to match the gas analyzer composition, and automatically updates the 640i/780i thermal mass flow meter to adjust the flow rate to account for the new gas composition.

To learn more about the qMix RealTime System, visit our website at <https://www.sierrainstruments.com/products/flare-gas-measurement-system.html>.

About Sierra

We understand flow is tough. We can solve this together.

A global leader in flow measurement and control for over 45 years, Sierra Instruments designs and manufactures fluid flow measurement and control solutions for customers spanning global industries as diverse as scientific research, oil & gas, energy management, semiconductor, clean energy, aerospace and biotech to name a few. Sierra provides state-of-the-art calibration and fast localized service. With over 150 locations in over 50 countries, Sierra is uniquely positioned to provide innovative products and lifetime support for the leading companies of today and the growth enterprises of tomorrow. Sierra is a proud member of the TASI Group.

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