



**SIERRA<sup>®</sup>**



# Welcome

## We will begin shortly

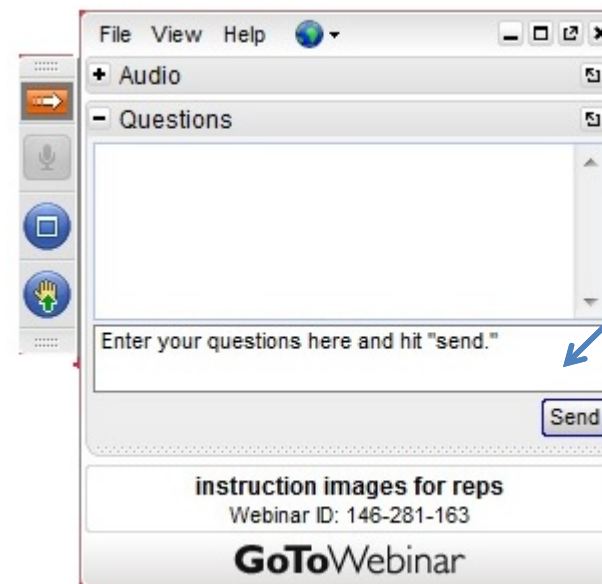
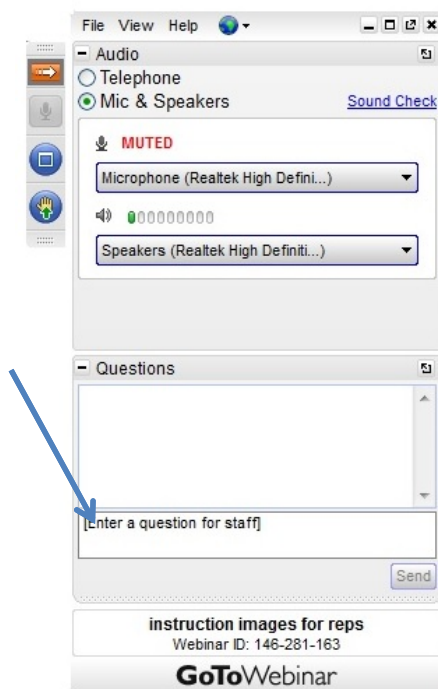
- **Important:** Please put your phone on **MUTE**, if you have called in using your phone to eliminate background noise.
- The **Q&A** session will be after the presentation.
- You can submit your questions using the **QUESTION** box.



# Welcome

## We will begin shortly

To submit your questions, enter them in the QUESTION BOX





# Selling More Sierra.

Flow Meter Solutions for  
Those Who Demand Precision

Presented by:

Matthew Olin, CEO

Glen Coblenz, VP Sales North America

Scott Rouse, VP Product Line Management

Brian Estep, Senior Software Engineer

Jason Moravek, Senior Software Engineer





# Webinar Summary

- 1. Introductions - Erica Giannini**
- 2. 2020 Vision, Direction & What's New – Matt Olin**
- 3. Markets, Applications & Selling Tips – Glen Coblentz**
- 4. Demo of qMix Gas Mixing Software – Glen Coblentz**
- 5. Introduction to SmartVO Control Valves – Scott Rouse**
- 6. Demo of Lead Management Portal – Glen Coblentz**
- 7. Q&A – Team**



# Sierra's 2020 Vision, Direction & What's New

**Matthew Olin**  
CEO





# Our 2020 Vision Plan

- 6-Year Plan—Roadmap for growth
- 7% Sales Growth/Year (56M)
- People First
- Total Embrace of Quality
- Invest in process improvement
- Steady stream of great new products



## Our 2020 Vision Guiding Principles

- Our Vision, Mission, Purpose and Values.
- It's not "What" we sell, its "Why" we do it.

### Why?

In everything we do, we believe in challenging the status quo in our industry, we believe in changing the way customers perceive precision measurement & control companies.

### How?

The way we challenge the status quo is by making our products beautifully designed with exceptionally high performance, easy to use, being flexible to customer needs, all of this with  
~Uncompromising Focus on QDPICS~

### What?

We just happen to make amazing precision measurement and control solutions, want to buy one?





# 2015 ACTIONS

## Process Improvements

- Automate ALL industrial calibration facilities
- Move to new IT/ERP platform called SDMS (Sierra Data Management System)
- New Website integrated to SDMS
- Price list online with a smart ADS all linked to SDMS
- Continue strong lead generation
- Speed as a strategy – rapid lead follow up
- New Full-Line Flow Brochure in your hands within two weeks



# 2015 ACTIONS

## Innovative Products

- Continue QuadraTherm steady growth
- qMix Gas Mixing
- Continue SmartTrak 100 growth
- New control valve product line by the end of May
- Have a full pipeline of R&D projects / continue to invest
- Sierra has best technical team in our history and Dr. Olin is still deeply involved in sensor design
- Several new game-changing products by year-end / early 2016

# Markets, Applications & Selling Tips

**Glen Coblentz**  
VP Sales North America






# Growth Markets

- Energy
- Facilities Management
- Oil & Gas
- Environment
- Natural resources
- Automotive & Transportation
- Improving end-product quality
- Process control
- Population driven markets
- Life Sciences
- Semiconductor

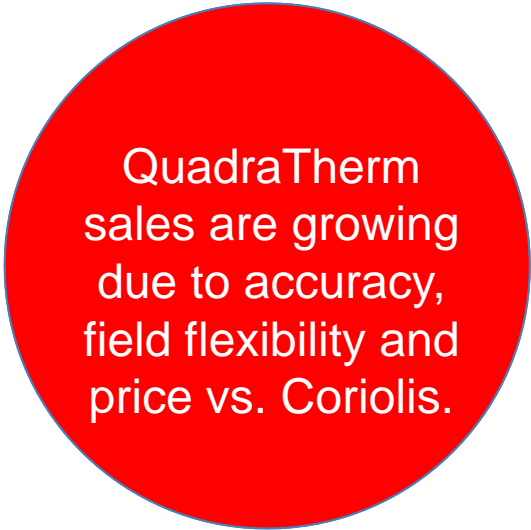
# QuadraTherm 640i/780i Sales Arguments

- Accuracy:
  - 780i Inline +/- 0.5% of reading above 50% full scale
  - 640i Insertion +/- 0.75% of reading above 50% full scale
- Sensor 2.0
- High Velocity up to 60,000 SFPM
- Multivariable: Mass flow rate, T, P, totalized flow rate
- QuadraTherm® four-sensor design
- DrySense™ no-drift sensor with lifetime warranty
- qTherm® “Brain” manages changes in gas, T, P, Outside Temp



QuadraTherm sales hit \$2M in 2014 and have grown by 150% per year since release.

- Dial-A-Pipe: Change pipe size
- Dial-A-Gas: Change gas type
- Smart Interface Program: Computer interface software
- ValidCal™ Diagnostics: In-Situ cal validation / performance check
- qTherm Gas Database: gases & mixtures (growing & improving)
- qMix Gas Mixing Software
- Flow Totalizer
- Digital Communications / Approvals



QuadraTherm sales are growing due to accuracy, field flexibility and price vs. Coriolis.



# 640i/780i qTherm Dial-A-Gas Selection

qTherm Gas Code	Gas	qTherm Gas*	Actual Gas Calibration Code	Actual Gas Calibration
0	Air (Standard)	Standard	0	Standard
1	Argon	\$0	1A	\$397
2	Carbon Dioxide	\$0	2A	\$397
3	Chlorine	\$0	N/A	N/A
4	Digester gas	\$0	4A	\$463
6	Helium	\$0	6A	\$397
7	Hydrogen	\$0	7A	\$1,246
8	Methane	\$0	8A	\$463
10	Nitrogen	\$0	10A	\$397
11	Oxygen	\$0	N/A	N/A
12	Propane	\$0	12A	\$463
99	Other <sup>1</sup> - Consult Factory	\$315	99A	SCR

# Applications

1. Upstream Oil & Gas-qMix
2. Sierra's Wet Gas Solution
  - Landfill gas, biogas, digester gas
3. Digital Communications
  - HART, Modbus RTU
  - Foundation Fieldbus, Profibus DP





# **Demo of qMix Gas Mixing Software QuadraTherm® 640i/780i**

**Glen Coblentz**

VP Sales North America

**Brian Estep**

Senior Software Engineer

# FIRST & ONLY

## Thermal Flow Meter in the World to Field Adjust for Gas Composition Changes

### What is qMix?

- QuadraTherm and qTherm Algorithm make qMix possible
- qMix is gas mixing software with every QuadraTherm product
- qMix allows users to change gas composition in the field
- No more sending the unit back to factory for recalibration**

# Demo of qMix Gas Mixing Software

- How to Activate qMix
- How qMix works-create, save, and upload new gas mixtures

## Resources

[Watch How it Works](#)

[Read White Paper](#)

[Learn More](#)

## Market Differentiators

- QuadraTherm with qMix-first and only thermal flow meter to field-adjust for gas composition changes; now compete head-to-head with other technologies
- In upstream oil & gas applications, use qMix to update gas composition in the field for flare, vapor recovery units (VRU) & storage vessels
- For landfill gas, biogas, & digester gas use qMix to adjust for changing gas composition

# Sales Arguments

## Advantages of QuadraTherm with qMix Software

- Quickly create new gas composition with on board qMix software
- Upload your new gas composition to your 640i/780i in the field & maintain accuracy—no factory recalibration needed
- High-turndown
- No moving parts
- Measurement of very low pressure vapors with no pressure loss
- Approvals: ATEX, IECEx, CE, cFMus, GOST R, China Pattern

## Accuracy Statements

- Standard Accuracy: 780i Inline +/- 0.5% of reading above 50% full scale; 640i Insertion +/- 0.75% of reading above 50% full scale
- qTherm® Gas Database/Library: 780i Inline +/- 0.5% to +/- 3.0% of full scale; 640i Insertion +/- 0.75% to +/- 3.0% of full scale for the 640i
- qMix Gases: +/- 3.0% of full scale accuracy

# Free Upgrade of Your Current 640i/780i Demo for **LIMITED TIME**

- Firmware upgrade to 1.0.87 and required air recalibration to support qMix
- Sensor 2.0 upgrade at no additional charge

**With this FREE upgrade package, your demo will be up-to-date with:**

- Latest firmware & qMix functionality
- Renewed air calibration to enhance functionality of qMix gases and ensure accuracy | standard accuracy
- Sensor 2.0 ensure standard accuracy at all flow rates



# Introduction to Sierra's SmartVO Control Valves

**Scott Rouse**

VP Product Line Management





# SmartVO Control Valve

## Why the SmartVO?

- Sierra has 30 years of experience with electromagnetic control valves/ leverages Sierra's proven valve technology
- Turn-Key packaged solution/for every MFC sold approximately 10 valves are required

## Specifications

- Ranges from 4 sccm to 1000 slpm, and pressure to 5,000 psig (345 barg)
- Operates over a wide pressure differential range
- Accommodates most clean gases, including corrosives
- Different valve seats and flow body elastomers available
- Available with a wide variety of inlet/outlet fittings
- Valve designed with positive shut off





# SmartVO Product Line

## Models, Flow Rates, Operating Pressure

VO-100L Low Flow priced at \$550 AL, \$600 SS

- Pressure to 145 psig (10 barg), flow to 50 slpm

VO-100M Medium Flow priced at \$900

- Pressure to 500 psig (34.5 barg), flow 50 to 300 slpm

VO-100H High Flow priced at \$1200

- Pressure to 500 psig (34.5 barg), flow 300 to 1,000 slpm

## Specialty Control Valves

VO -100HP High Pressure

- High pressure to 5,000 psig (345 barg)
- Flow to 20 slpm

VO -101 Ultra Low Flow

- Pressure to 145 psig(10 barg)
- Flow to 0 to 50 sccm





# Demo of Lead Management Portal

**Glen Coblentz**

VP Sales North America



# Video and Application Resources

## Recent Videos



[View all Videos](#)

[Thermal Principle of Operations](#)

[In-Situ Calibration Validation](#)

[DrySense Sensor Technology](#)

[Primary Standard Gas Flow Calibration Systems](#)

## Tutorial Videos

[How qMix Works](#)

[Flow Totalizer](#)

[My Units Service Calibration and Repair Portal](#)

[Flow Meter Technical Support and Repair](#)

[Tech Tips: How to Videos](#)

[Go to Sierra's YouTube Channel for All Videos](#)



# Application Resources / White Papers

## White Papers

[View All White Papers](#)

[In-the-Field Compensation for Changes in Natural Gas Composition](#)

[In-Situ Calibration Validation](#)

[Flare Gas Mass Flow Metering](#)

[Sub-Metering of Natural Gas](#)

[Precise Biogas Flow Measurement](#)

## QuadraTherm Core Technology Papers

[Introducing a New Paradigm for Thermal Dispersion Mass Flow](#)

[Advances in Thermal Dispersion Mass Flow Meters - Part 1](#)

[Advances in Thermal Dispersion Mass Flow Meters - 2](#)

# QuadraTherm™ 640i / 780i

THERMAL MASS FLOW METER



# NEVER

before possible.



# ASK QUESTIONS!

**Use the Question Function**



# **THANKS for attending!**

**An email with a copy of this Power Point  
will be sent to all attendees along with a short survey today.**



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