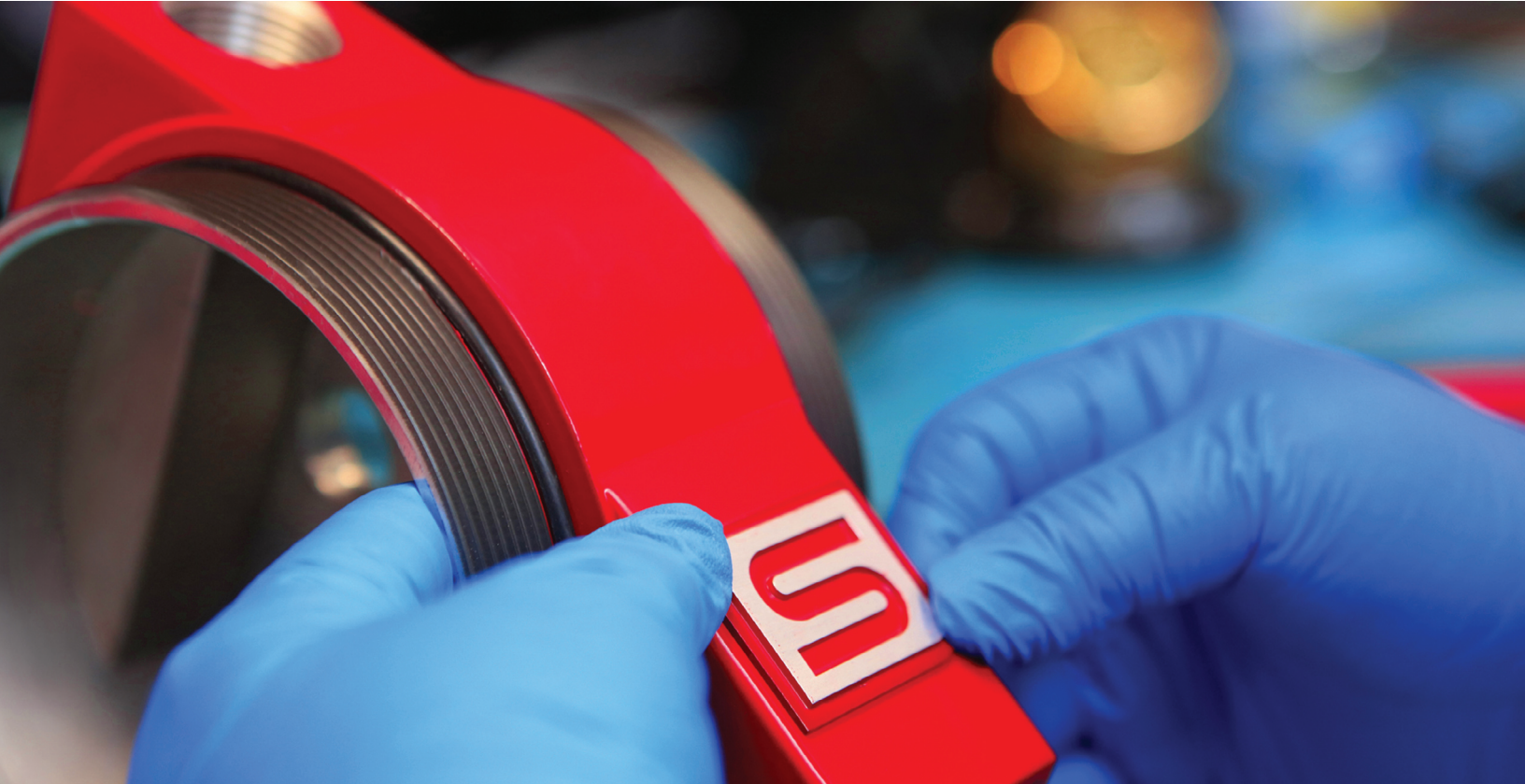# Precision Flow Measurement Solutions for Industry

Thermal, Vortex, and Ultrasonic Technologies for All Your Gas, Liquid, and Steam Applications

You can be certain.

For over 50 years, Sierra has been a global pioneer in the design and manufacturing of precise flow measurement instruments you can trust.

We produce accurate and reliable solutions that control industrial processes, regulate emissions for oil and gas operations, convert waste to energy, create silicon chips that enable advanced technology, and deliver life-saving medicine.

Representatives in 150 locations in over 50 countries provide innovative flow measurement products and services where and when needed.

Sierra. Measurably Different.®

WORLD'S MOST ACCURATE

QuadraTherm®

Models
• THERMAL: 640i Insertion and 780i Inline

Accuracy
• 640i Insertion: +/- 0.75% of reading above 50% of calibrated full scale
• 780i Inline: +/- 0.5% of reading above 50% of calibrated full scale

Highlights
• Multivariable outputs: Mass flow rate, temperature, pressure
• Patented QuadraTherm 4-Sensor thermal technology
• Patented no-drift DrySense™ sensor with Lifetime Warranty
• Repeatability +/- 0.15% of full scale
• Create new gas or gas mix with qMix™
• Field configurable: Pipe size, calibrated full scale, gas, units of measure

Flow Ranges
• Very low flows with high flows up to 60,000 sfpm (305 smps)

FULLY FIELD CONFIGURABLE

PowerMass™

Models
• THERMAL: TM500 Insertion, Inline, and Remote

Accuracy
• +/- 1.0% of reading +/- 0.2% of full scale for Air, Nitrogen
• +/- 1.5% of reading +/- 0.5% of full scale for all other gases

Highlights
• Menu of field selectable gas compositions with GasMix™
• Repeatability +/- 0.2% of full scale
• Robust DigiSense™ sensor design
• Measurement range up to 1000:1 turndown
• AC or DC power / Integral and Remote Display options
• Field configurable: Pipe size, calibrated full scale, gas, units of measure

Flow Ranges
• 15 to 45,000 sfpm (0.07 to 212 nmps)

EXTRAORDINARY VALUE

AdvantageMass™

Models
• THERMAL: TM100 Insertion and Inline

Accuracy
• +/- 1.0% of reading +/- 0.2% of full scale for Air, Nitrogen
• +/- 1.5% of reading +/- 0.5% of full scale for all other gases

Highlights
• Menu of field selectable gas compositions with GasMix™
• Repeatability +/- 0.2% of full scale
• Robust DigiSense™ sensor design
• Measurement range up to 1000:1 turndown
• 12 to 24 Volt DC power
• Field configurable: Pipe size, calibrated full scale, gas, units of measure

Flow Ranges
• 15 to 25,000 sfpm (0.07 to 120 nmps)

DESIGNED FOR WASTEWATER
BioTrak™

Models
- THERMAL: 645i Insertion, 745i Inline, and Remote
- THERMAL: 645S Insertion and 745S Inline versions

Accuracy
- +/- 1.0% of reading +/- 0.2% of full scale for Air, Nitrogen
- +/- 1.5% of reading +/- 0.5% of full scale for all other gases

Highlights
- Field selectable gases: Air, Methane, Digester gas / Biogas
- Repeatability +/- 0.2% of full scale
- Robust DigiSense™ sensor design
- Measurement range up to 1000:1 turndown
- AC or DC power available on i series. 24 vdc only on S series
- Field configurable: Pipe size, calibrated full scale, gas, units of measure

Flow Ranges
- 15 to 25,000 sfpm (0.07 to 120 nmps)

SIERRA LEGACY
FlatTrak®

Models
- THERMAL: FlatTrak 780S Inline, and 780S Ultra High Purity Inline, and Steelmass 640S Insertion

Accuracy
- +/- 1.0% of reading +/- 0.5% of full scale

Highlights
- FlowTrak dual-plate flow conditioning is built into 780s
- Limited field configuration
- Repeatability +/- 0.2% of full scale
- Patented DrySense™ no-drift sensor design, 780S, 640S. Lifetime Warranty
- High temperature option 750° F (400° C) - 640S only
- AC or DC power

Flow Ranges
- 0 to 20,000 sfpm (100 smps)

FIELD PROVEN
BoilerTrak™ • FastFlo™

Models
- THERMAL: BoilerTrak 620S-BT Insertion, and FastFlo 620S Insertion
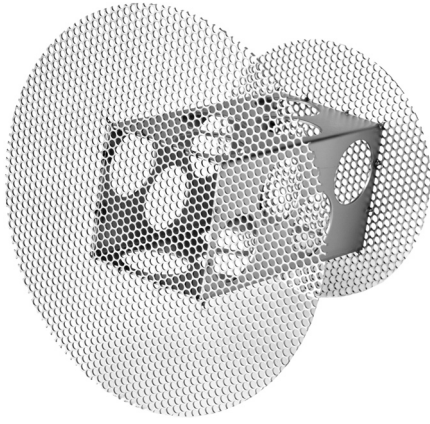
Accuracy
- +/- 1.0% of full scale

Highlights
- BT optimized for Methane, Propane, and Natural Gas
- FF optimized for all non-combustible clean gases, Air, Nitrogen, Carbon Dioxide, etc.
- Repeatability +/- 0.2% of full scale
- Very fast speed of response sensor, 200msec
- 15 to 24 Volt DC power

Flow Ranges
- Flow range from 0 to 20,000 sfpm (100 mps)

DELIVER UNIFORM FLOW
FlowTrak™

Model
• Single-plate and dual-plate

Fluids Measured
• All gas metering applications

Highlights
• Minimizes irregularities caused by elbows, valves, expansions, etc.
• Reduce upstream and downstream piping requirements to shortest runs in the market
• Industry's leading dual-plate technology
• Available for 1" to 38" schedule 40 pipe (contact for larger sizes)
• 316 stainless-steel construction

Straight Length Improvement
• Effectively eliminates velocity distortions, swirl and temp stratification

NOTHING LIKE IT
InnovaMass®

Models
• VORTEX: 241S Insertion, 240S Inline, and 240S-R Reducer

Accuracy / Insertion
• Mass flow: +/-1.5% of reading (liquids); +/-2.0% of reading (gas & steam)
• Volumetric: +/-1.2% of reading (liquids); +/-1.5% of reading (gas & steam)

Accuracy / Inline
• Mass flow: +/-1.0% of reading (liquids); +/-1.5% of reading (gas & steam)
• Volumetric: +/-0.7% of reading (liquids); +/-1.0% of reading (gas & steam)

Repeatability / Insertion & Inline
• Mass flow: +/- 0.2% of reading • Volumetric: +/- 0.1% of reading

Highlights
• 6-in-1 mass & volumetric flow rate, temperature, pressure, density, energy
• Mass & volumetric flow measurement of gas, liquid, and steam
• Insertion probe for pipes/ducts up to 72 in. Hot tap available with retractor
• Field-configurable ranges, alarms, outputs, and displays

LOW FLOW SOLUTION
TurboPro®

Model
• TURBINE: VorTek Insertion turbine (Pro-T)

Accuracy
• +/- 1.5% of mass flow rate for liquids

Highlights
• Mass flow or volumetric monitoring of most liquids, gases, and steam
• Multivariable: Outputs mass flow, volume flow, density, temperature, and pressure
• Repeatability: Mass flow +/- 0.2% of reading • Volumetric flow +/-0.1% of reading
• Low flow capability much lower than vortex
• Install in any pipe 3" and greater. Hot tap available with retractor
• Field configurable ranges, outputs, and display

ULTRASONIC CLAMP-ON
SonoPro®

Model
• ULTRASONIC: VorTek Clamp-on S36

Accuracy
• +/- 0.75% of reading

Highlights
• Fixed mount non-invasive flow metering for most liquids
• Outputs volumetric flow, temperature, and energy
• Energy monitoring: Ability to compute and output energy usage
• Repeatability: +/-0.2% of rate
• Temperatures up to 248˚ F (120˚ C)
• Clamp-on pipe sizes from 1/2" (15mm) to 200" (5000mm)
• Field configurable ranges, outputs, and display
• Bluetooth optional

PORTABLE CLAMP-ON
SonoPro®

Model
• ULTRASONIC: VorTek Clamp-on S34

Accuracy
• +/- 1% of reading

Highlights
• Portable non-invasive flow metering for most liquids
• Outputs volume flow, temperature, and energy
• Repeatability: +/-0.2% of rate
• Temperatures up to 248˚ F (120˚ C)
• Clamp-on pipe sizes from 1/2" (15mm) to 200" (5000mm)
• Field configurable ranges, outputs, and display
• Bluetooth optional
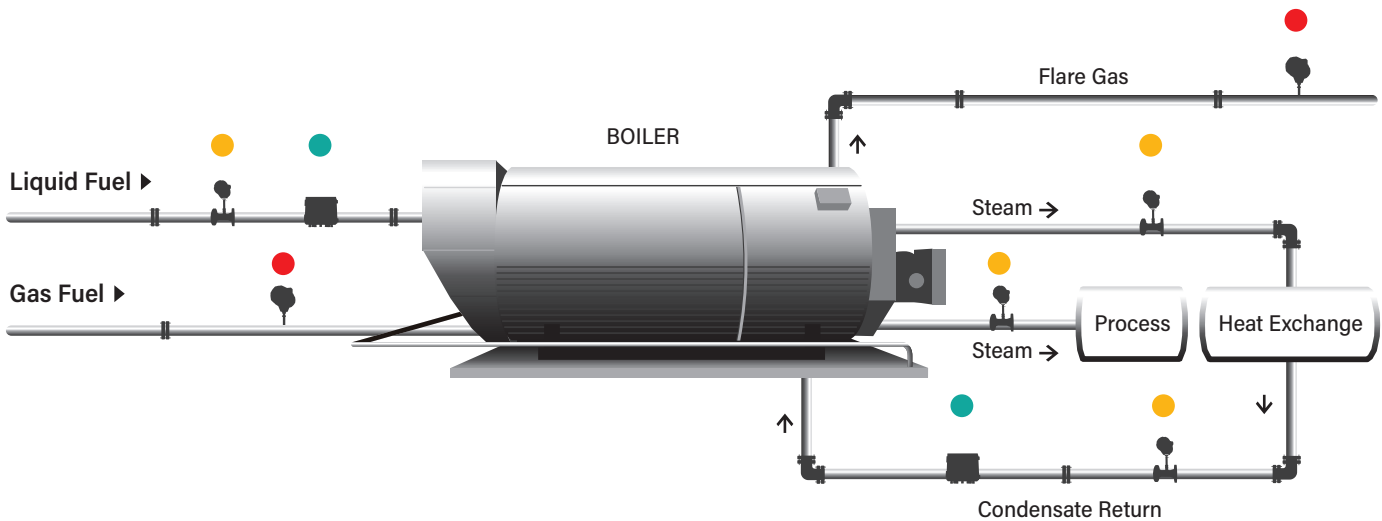
FLOW YES OR NO
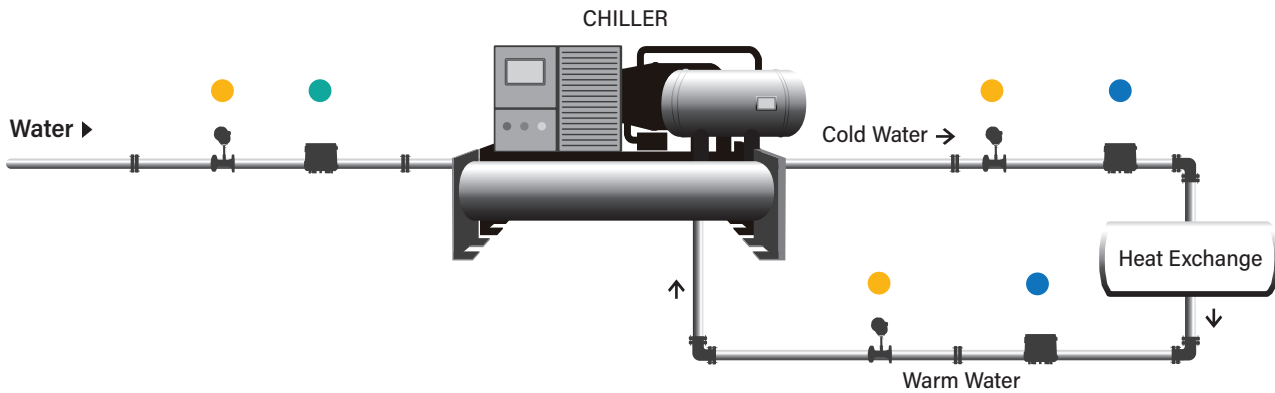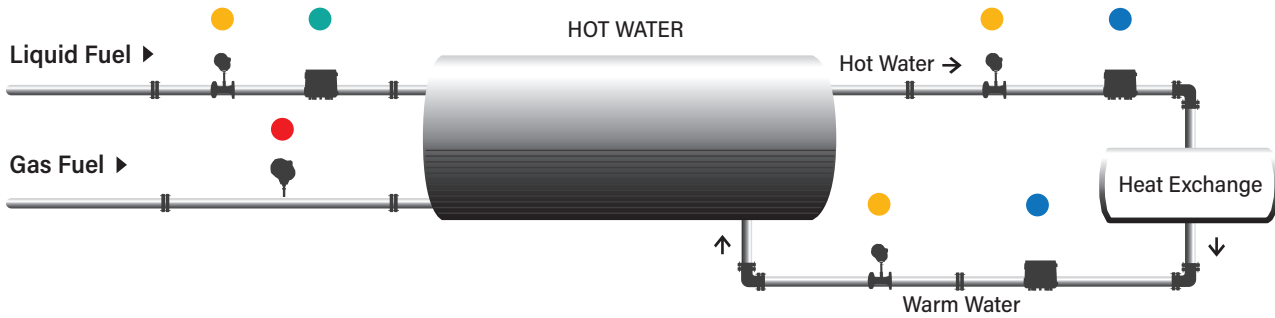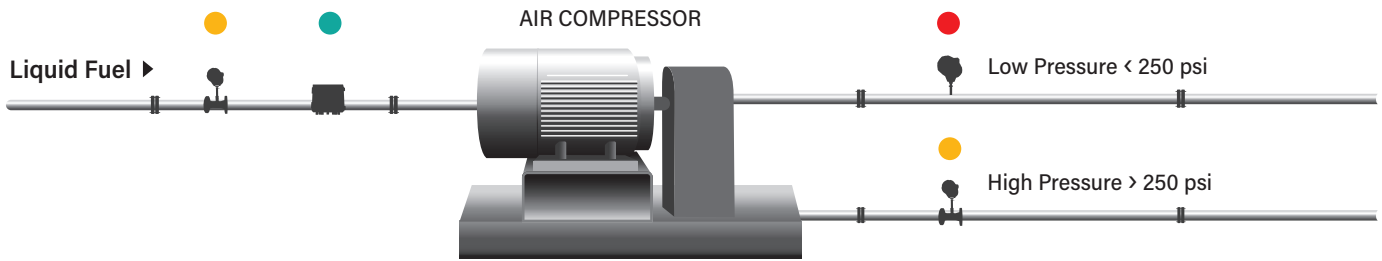# InnovaSwitch®

Model
• 615

Highlights
• Gases and liquids
• Repeatability +/- 1% of set point (Flow) or 1/32" (0.8mm) Level
• Switches on a flow/no flow condition
• Ideal for industrial pump protection
• Unique high temperature to 850˚ F
• 2-year workmanship warranty

Flow Ranges
• 0.01 to 5 sfps (0.003 to 1.524 smps) in liquids and 0.1 to 500 sfps (0.03 to 152.4 smps) gases

Find the Ideal Flow Meter for Your Application.

🔥 THERMAL   **◎ VORTEX**   **📶 ULTRASONIC**   **📶 ULTRASONIC ENERGY**

AIR COMPRESSOR

Liquid Fuel ▶

Low Pressure ‹ 250 psi

High Pressure › 250 psi

HOT WATER

Liquid Fuel ▶

Gas Fuel ▶

Hot Water →

Heat Exchange

Warm Water

CHILLER

Water ▶

Cold Water →

Heat Exchange

Warm Water

BOILER

Liquid Fuel ▶

Gas Fuel ▶

Flare Gas

Steam →

Steam →

Process   Heat Exchange

Condensate Return

SIERRAINSTRUMENTS.COM

nqa.
ISO 9001
QUALITY
MANAGEMENT