

InnovaMass. Reinvented.

In 1997, Sierra was the first to introduce a combination volumetric vortex and multi-variable mass flow meter. Today, Sierra's completely redesigned InnovaMass® iSeries™ 240i/241i builds on two decades of success measuring five process variables for gas, liquid and steam with one connection.

Now, with the latest hyper-fast microprocessors, robust software applications, field diagnostic and adjustment capability, and a new state-of-the-art flow calibration facility, Sierra's vortex iSeries delivers precision, performance, and application flexibility never before possible.

It has Apps!

Experience innovative flow energy management tools driven by our new Raptor II OS that will empower your process and save you time and money

- FloPro™ vastly improves low flow measurement calculation
- Dial-A-Pipe™ allows you to quickly change pipe sizes in the field
- Dial-A-Fluid™ measures a variety of fluids whenever you choose
- qMix™ makes/measures custom gas mixtures
- Many more apps to come

Field Independence



With Sierra's advanced Smart Interface Portal (SIP), tap into your InnovaMass and bring up a variety of powerful software interfaces to enhance your meter's performance.

- Meter Tuning™ cancels environmental noise, greatly improving accuracy
- ValidCal™ Diagnostics closely monitors meter performance and validates output
- Make fast firmware upgrades in the field
- Expect a mobile app for your cell phone in 2016

World-Class Flow Calibration Facility

Every flow meter is only as good as its calibration. Each InnovaMass is calibrated by Sierra's new calibration facility in Monterey, California, to assure the best possible performance. Flow standards with accuracies better than 0.2% of reading are used to assure the highest accuracy possible.

Next Day Shipping

Go to Sierra's online store to custom configure and buy InnovaMass. We stock select models for next day shipment. Sierra is the only company in the industry where you can buy vortex meters factory direct. Visit sierrainstruments.com/shop

Learn More

See the back of this data sheet for technical details or visit sierrainstruments.com for more information on the Innovamass iSeries.

(InnovaMass specs on back)



**240i
INLINE**



**241i
INSERTION**
with Probe Retractor
(easily adjusts
up and down
with standard drill)

InnovaMass iSeries

SIERRA INNOVAMASS VORTEX

Models

- 240i Inline
- 241i Insertion

Description

- Completely re-designed “iSeries”
- 5-in-1: Mass & volumetric flow rate, temperature, pressure, density
- Raptor II OS for best performance
- New Applications: FloPro™, qMix™, Dial-A-Pipe™, Dial-A-Fluid™, ValidCat™
- Field firmware upgrade capability
- Thermal energy / BTU measurement

Fluids Measured

- Steam, Gases, and Liquids

Flow Range (30:1 turndown)

- Liquids:
 - 1.0 ft/s (0.3 m/s) Velocity Min.
 - 30 ft/s (9.14 m/s) Velocity Max.
- Gas & Steam:
 - Velocity Minimum / ρ = fluid density

$$\sqrt{\frac{25}{\rho}} \text{ ft/s} \quad \sqrt{\frac{37}{\rho}} \text{ m/s}$$

(see note 1) (see note 2)

Velocity Maximum / 300 ft/s (91.5 m/s)

Note 1: in lb_m/ft³ **Note 2:** in kg/m³

Digital Communications

- HART, Modbus, Profibus DP, Foundation Fieldbus, BACnet, USB, RS-232

Hazardous Area Approvals

- CE, cFMus, ATEX, PED, IECEx

INLINE VERSION

Accuracy

- 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

- Mass flow: +/- 0.2% of reading
- Volumetric: +/- 0.1% of reading

INSERTION VERSION

Accuracy

- Mass flow: +/-1.2% of reading (liquids); +/-2.0% of reading (gas & steam)
- Volumetric: +/-1.0% of reading (liquids); +/-1.5% of reading (gas & steam)

Repeatability

- Mass flow: +/- 0.2% of reading
- Volumetric: +/- 0.1% of reading



Inspired by Formula One Racing

In 2014, Sierra's Automotive Test Division (sierra-cp.com) completed a state-of-the-art F1 engine testing facility for Honda. Today, the same Sierra CADET software that tunes those F1 engines calibrates every InnovaMass iSeries; running pumps, reading calibration standards, performing high-speed data acquisition and performance analysis, and even sounding alarms if anything goes wrong.

Sizing Program

With Sierra's new easy-to-use web-based sizing program, you can input application details and get a list of InnovaMass models that best fit your needs. You can then save, email or print the selections, buy online if a match is available, or request a quote.

Online Sizing Program:

sierrainstruments.com/products/innovamass_sizing.html

Model	Flow Rate	Pressure	Temp	Material
InnovaMass 240	1000000000	1000000000	1000000000	1000000000
InnovaMass 241	1000000000	1000000000	1000000000	1000000000
InnovaMass 242	1000000000	1000000000	1000000000	1000000000

Australian Distributor



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