New Product Bulletin

Innova-Mass™ Energy Monitoring System (EMS)

Sierra’s Innova-Mass Multivariable Mass Vortex Flow Meter is now capable of performing energy monitoring.

How it Works?
The Innova-Mass EMS System computes energy consumption by multiplying the mass flow rate times the difference in the enthalpy (in BTU/lbm or Joules/kg) of the hot water entering the facility (sent line) and the enthalpy of the colder water leaving the facility (return line). See Energy Monitoring Example. The sent enthalpy and mass flow rate are directly measured by the Innova-Mass meter, and the return enthalpy is measured using a separate, secondary RTD located in the return line. Innova-Mass delivers a real time output signal of the energy consumed within the facility (e.g., BTU or Joules) over a time period.

Key Features and Benefits!
- Available in all models of the Innova-Mass product line (Models 240 & 241)
- Selectable energy units: btu, joules, calories, giga calories, W-hour, MW-hour, and HP-hour
- Works for both heating (sent is hotter than return) and cooling (return is hotter than sent) applications — Innova-Mass is either installed in the sent or return line and secondary RTD in the opposite line
- Innova-Mass local display indicates two temperatures, delta T, mass total, and energy total
- One RTD is internal to the Innova-Mass and the secondary RTD (supplied by user) is easy to wire in the junction box provided
- Totalizer pulse output is programmable for volume, mass, or energy

Energy Monitoring Example

Innova-Mass Vortex Meter can be installed in return line with secondary RTD installed in the sent line.

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