

Power Generation Measurement Solutions

Superior measurement for outstanding results



Best-in-Class Measurement for the Power Industry only from Micro Motion®

Accurate measurement of fuel is the key to optimal combustion efficiency. By precisely controlling air-to-fuel ratios, power plants ensure optimal energy production and minimal emissions. Emerson's Micro Motion® Coriolis mass flow meters, dedicated density and viscosity devices deliver the world's best measurement for supreme accuracy and superior combustion control.



Improve Operations

- Achieve greater visibility and tighter control of liquid or gas fuel feed rate to ensure optimal energy efficiencies
- Coriolis mass flow meters deliver the best possible measurement accuracy and turndown for use in critical performance test applications
- Receipt of the exact amount of fuel purchased and burned

Increase Compliance and Safety

- Optimizing combustion efficiency ensures less SOX and/or NOX emissions are produced
- Direct mass measurement from a single device results in less leaks via a single penetration into the pipeline
- With no pressure, temperature or compressibility compensation needed, risks are reduced and complexity avoided



Reduce Cost

- Single meter to measure mass, density, and temperature that is able to handle difficult entrained gas and two-phase flow conditions, mean minimal maintenance and maximum return on investment
- In-situ meter verification provides assurance meter is performing as specified without disruption to operation schedules
- No straight pipe runs result in lower installed cost

Inherent Advantages of Micro Motion Coriolis

- Measure all fluids, slurries and gases with one instrument
- No moving parts result in lower maintenance costs
- Install anywhere with no flow conditioning or straight pipe run required
- Simple and fast installation and commissioning at start-up

Combustion Control

In the power industry, volumetric flow meters are traditionally used to manage combustion control. Traditional technologies include differential pressure (DP), vortex and turbine flow meters. Limitations of these technologies include no direct mass measurement, lower measurement accuracy, limited turndown, challenges handling pulsating flows, and flow conditioning is required.

Micro Motion Coriolis measurement is direct, mass-based measurement that needs no calculation for mass flow reading. In addition, no devices are needed to deliver pressure, temperature and compressibility measurement.

For combustion efficiency, one of the greatest advantages of Micro Motion Coriolis is its gas flow measurement accuracy. Micro Motion Coriolis can deliver 0.35% mass accuracy over a large turndown. In fuel gas measurement, 50:1 or greater turndowns are not uncommon.



Emissions Reductions

Using Micro Motion Coriolis in power industry applications means reliable, sound measurement regardless of gas composition variations resulting in better environmental compliance. Because of the direct mass, density and temperature measurement, insight into the process itself is readily available. Micro Motion Coriolis ensures optimal fuel gas feed and consistent performance regardless of energy content changes so your plant can be at maximum productivity with minimum emissions issues.

Micro Motion Products for Power Generation Measurement

For complete product specifications, visit www.MicroMotion.com in the Products link or contact your sales representative.



ELITE® Coriolis Meters



F-Series Coriolis Meters



3098 Gas Density Meter



7829 Viscomaster Viscosity Meters

Superior accuracy and measurement performance for:

- Condensate flows
- Demineralization skids
- Fuel oil viscosity
- Gas density (Wobbe index)
- Gas fuel flow
- Gas fuel quality assurance
- H₂O flow
- Hydrogen blending
- Hydrogen purity
- Inlet air fog
- Liquid and gas custody transfer
- Liquid fuel flow
- Lube oil additive flow
- Lube oil density and flow
- SCR skids (Ammonia injection)



Micro Motion, a division of Emerson Process Management, is known globally in over 85 countries for its quality and reliability. As part of the Emerson PlantWeb® digital plant architecture, Micro Motion enables increased plant availability, decreased costs and enhanced safety. With over 600,000 meters installed around the world, Micro Motion delivers application expertise, service and technical support not available elsewhere.



Benefit from the wide range of Micro Motion solutions available

- Superior, out-of-the-box flow and density accuracy
- Simple installation and reduced cost
- No straight-run piping or special supports required
- Multivariable outputs (mass flow, volumetric flow, density/concentration, temperature)
- Direct PLC interface with digital protocols (DeviceNet, Profibus, Modbus, HART)
- In-line meter verification of electronics and sensor – without the need for tools or down-time
- Exceptional measurement and operating performance in entrained gas conditions
- Solutions for high and extreme temperature applications
- Best-in-class compact and drainable Coriolis
- Exida Safety-certified Coriolis for SIL-2 and SIL-3 applications
- EPA 40 CFR75 calibration capability



www.micromotion.com

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