

# Food & Beverage Measurement Solutions

Superior measurement for outstanding results



# Best-in-Class Measurement for Food & Beverage only from Micro Motion®

Processes that must deliver the same quality products, day in and day out, demand performance that is second to none. Emerson's Micro Motion Coriolis and dedicated density devices deliver the world's best measurement for repeatable, consistent and accurate ingredient addition to ensure your brand is never compromised.



## Improve Quality

- Direct mass measurement eliminates volumetric variation caused by changing temperatures and densities of ingredients, ensuring that repeatable, accurate quantities are delivered batch after batch
- Real-time monitoring of raw material density allows for instantaneous adjustments based on actual product make-up
- Unlike volumetric flow meters, measurement performance is unaffected in entrained gas and two-phase flow applications

## Maximize Production

- Eliminate sequential ingredient additions required with load cells and simultaneously add all ingredients to shorten batch and agitation cycles
- No moving parts and no line intrusions means less maintenance and cleaning downtime
- Multi-variable measurement (mass, volume, density, temperature) gives a complete view of the process, assuring product meets specification, first time, every time
- In-situ meter verification provides assurance that the meter is performing as specified without disruption to production schedules



## Improve Operations

- Increase your process flexibility by switching from volumetric meters, which must assume a static density/concentration
- Eliminate meter dismantling and costly downtime resulting from maintenance inherent with turbine and positive displacement meters
- Assure CIP process is meeting standards by monitoring flow, concentration and temperature of your cleaning fluids with *one* instrument
- Measure the mass of multiple products with differing densities accurately with one flow meter
- Simple PLC interfacing with an array of digital protocols (DeviceNet, Profibus, Modbus, HART) and standard outputs

## Inherent Advantages of Micro Motion Coriolis

- Measure all fluids, slurries and gases with one instrument
- No moving parts result in no maintenance or repair
- Install anywhere with no flow conditioning or straight pipe run required
- Simple and fast installation and commissioning at start-up
- In-situ meter verification eliminates the need for periodic and disruptive calibration checks

**Batch Control**

A manufacturer of baked goods was having trouble keeping liquid sponge within specification. When they replaced their positive displacement meters with Micro Motion Coriolis meters, raw material costs declined, product quality and consistency improved, and they reduced space requirements by eliminating unneeded bulky equipment.



**Filling**

A filling machine OEM improved their high-speed in-line fill systems by replacing positive displacement piston fillers with Micro Motion meters utilizing MVD™ technology. Since maintenance is no longer required and an automated CIP cleaning process lets them change product on the fly, their users now enjoy the increased productivity the Micro Motion meters have brought to the process.

**Bulk Transfer**

In a custody transfer case involving juice concentrate, the value of each tanker load was based on the percent sugar solids content, or °Brix of the concentrate. After installing Micro Motion meters, mass flow, density and total concentrate delivered to the tanker could be measured accurately, continuously and automatically as the tanker was being filled. Because these critical parameters could be controlled while loading, the need to unload and rework off-spec product was eliminated.

**Micro Motion Products for the Food & Beverage Industry**

For complete product specifications, visit [www.MicroMotion.com](http://www.MicroMotion.com) in the Products link or contact your sales representative.



ELITE® Coriolis Meters with 2400 Stainless Steel transmitters



H-Series Coriolis Meters



Tube and Fork Densitometers



F-Series Coriolis Meters



T-Series Coriolis Meters



Transmitters  
Direct PLC interface with digital protocols (DeviceNet, Profibus, Modbus, HART)



Hygienic and sanitary devices certified to 3A Authorization and EHEDG

From applesauce to zinfandel, Micro Motion meters deliver results for food and beverage facilities around the world

- Batching
- Blending
- Separation
- Evaporation and drying
- Interface detection
- Distillation monitoring
- Custody Transfer
- Concentration, % solids, % HFCS, °Brix, °Plato, °Balling, °Baume, % caustic, % alcohol
- Filling



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

- 3A authorized and EHEDG approved products
- Unmatched, out-of-the-box 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
- Wide range of concentration outputs (°Brix, °Plato, % caustic, % alcohol, etc.)
- 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



[www.micromotion.com](http://www.micromotion.com)

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