REVOLUTIONIZE YOUR DENSITY AND CONCENTRATION MEASUREMENT TECHNOLOGY

Micro Motion Compact Density Meter

EMERSON
Process Management

INTRODUCING EMERSON'S MICRO MOTION® COMPACT DENSITY METER

Our Compact Density Meter (CDM) delivers precision online density and concentration measurement in a drainable, compact design. This rugged and reliable meter raises the standard for online density metering and enhances the custody transfer, processing and blending operations of high-value products such as crude oil, refined hydrocarbons, alcohols and critical process fluids.

Density and Concentration Measurement with Performance and Confidence

The combination of our industry-leading technology, wide breadth of products, unparalleled application expertise and customer support allows us to deliver unbeatable performance and value, time and time again.

The Micro Motion Compact Density Meter Delivers:

Superior Measurement Capabilities

- Our innovative platform provides the best, real-world measurement performance

- The tightest density resolution and repeatability available ($\pm$0.02 kg/m^3)

A World-Class Leading Electronics Platform

- New-to-world integral flow rate indicator confirms sample integrity and enables effective field validation

- Local display and user interface allows for simplified device management, minimizing maintenance requirements

- Simple integration into DCS, PLC, and flow computers (Frequency/Time Period, Analog 4-20mA, HART®, Modbus RS-485, and FOUNDATION™ fieldbus)

Accredited Density & Temperature Measurement

- State-of-the-art IEC/ISO17025 accredited, traceable density and temperature calibrations

- OIML R117-1 certified conforms to Measurement Instrument Directive (pending)
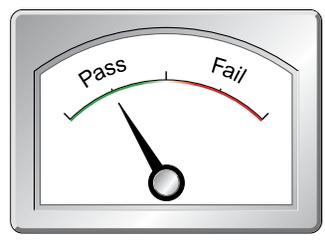
PERFORMANCE & CONFIDENCE

Application-Specific Configurations

Automatic, application-specific measurement and output configurations ensure simple set-up and commissioning

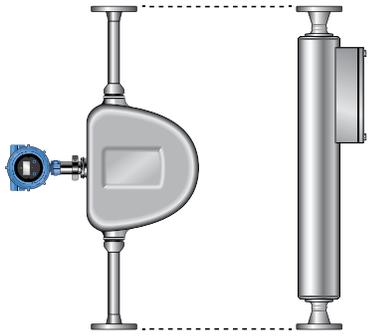Density
Specific Gravity
% Concentration
°API
°Brix, °Baume, °Plato
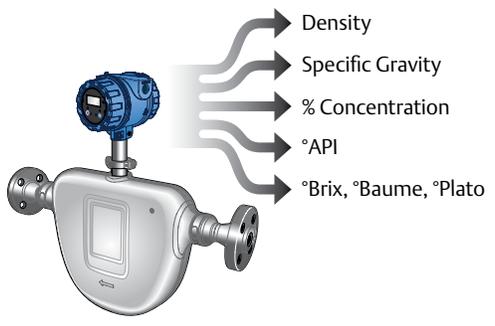
Meter Diagnostics

Built-in diagnostics for real-time monitoring and automated meter verification systems

Pass   Fail

Unrivalled Density Performance

A choice of installation options for replacement solutions give you the performance you need

### Temperature Control & Measurement

Multi-point temperature measurement and thermal insulation solutions eliminate process and environmental temperature impacts
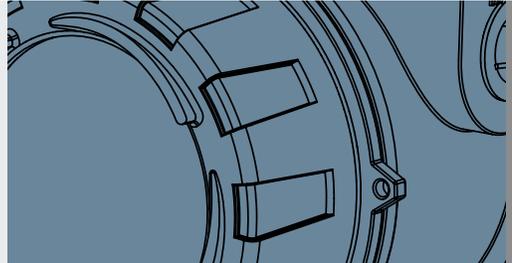
KEY APPLICATIONS

Pipeline & Terminals

- **Fiscal and Custody Transfer Measurement**
  Minimize exposure and gain/loss uncertainty

- **Interface and Product Detection**
  Improve cut-over accuracy and product quality determination and reduce scrap, waste, or down-grading of multi-product pipelines
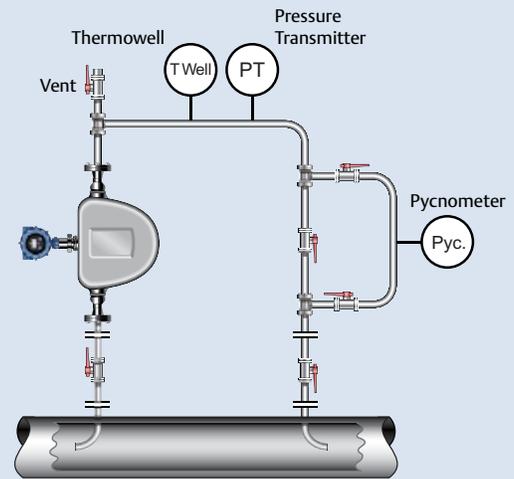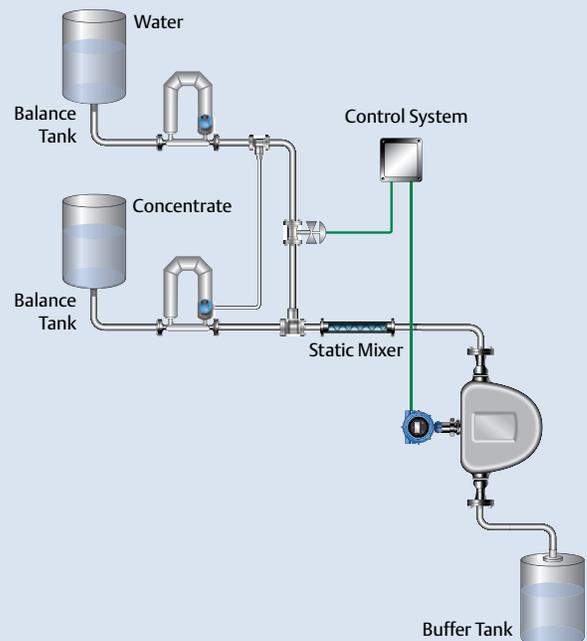

Refining, Chemical & Petrochemical

- **Product Quality and Process Control**
  Optimize residence/cycle time while minimizing energy usage in condensers, contactors and reactors

- **Blending and Concentration Control**
  Reduce waste, rework and giveaways with optimal feed and production fluid quality measurement
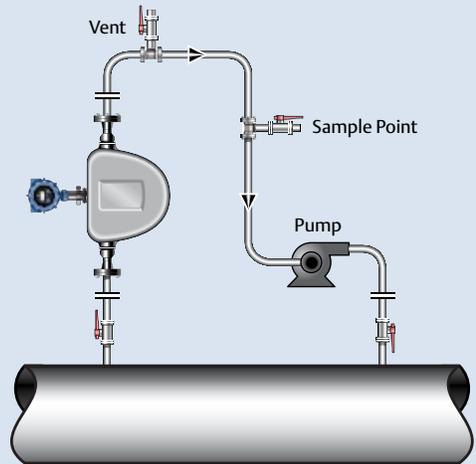
Food & Beverage

- **Continuous Measurement and Control**
  Deliver finished product quality for sugar, dairy, starch and confectionery food and beverage products

- **Concentration Control**
  Accurately measure alcohol content for brewing, fermentation and distillation processes

MICRO MOTION

For over 30 years, Emerson's Micro Motion
has been a technology leader delivering the
most precise flow, density and concentration
measurement devices for fiscal applications,
process control and process monitoring.
Our passion for solving flow and density
measurement challenges is proven through
the highly accurate and unbeatable
performance of our devices.

Compact Density Meter Specifications

Measuring Range	0-3000 kg/m^3 (0-3 g/cc)
Density Accuracy	±0.1 kg/m^3 (±0.0001 g/cc)
	Equivalent to: ±0.05° API, ±0.02° Brix, ±0.1% ABV, ±0.01% Conc.
Temperature Accuracy	BS1904, DIN 43760 Class 'A' (±0.15 ± 0.002 X T)°C
Flow Rate Accuracy	±5% of reading (10:1 turndown)
Accreditation & Standards	ISO17025, OIML R117-1, MID compliant
Safety Approvals	ATEX, CSA, IECEx (Intrinsically-safe and Explosion/Flame Proof)
Display	Two-line, LCD screen, Optical switch configuration
Outputs	Standard : Time Period, 4-20mA, HART, Modbus RS-485
	Optional : FOUNDATION™ fieldbus, WirelessHART™
Protection Class	Ingress Protection : IP66/67, NEMA4 EMC compliant with EN61326
Dimensions	Standard Flange to Flange : 600 mm (24") 7835/45 Retrofit Option : 1030 mm (40.5")
Weight (Typical)	14 kg (31 lbs)

DENSITY & CONCENTRATION
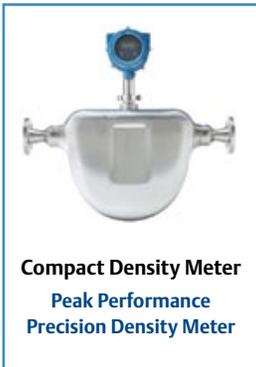
Compact Density Meter
Peak Performance
Precision Density Meter

Fork Density Meter
Direct Insertion
Density Meter

Gas Density Meter
Fiscal Gas
Density Meter

Specific Gravity Meter
Gas Specific Gravity
/BTU Meter

Fork Viscosity Meter
Multi-Variable
Viscosity Meter

Heavy Fuel Viscosity Meter
Multi-Variable Marine & Power
HFO Viscosity Meter

For more information, please visit: www.MicroMotion.com/density

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