REVOLUTIONIZE YOUR DENSITY AND CONCENTRATION MEASUREMENT TECHNOLOGY

Micro Motion Compact Density Meter
INTRODUCING EMERSON’S MICRO MOTION® COMPACT DENSITY METER

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.

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.

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 (±0.02 kg/m³)

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)
**Application-Specific Configurations**
Automatic, application-specific measurement and output configurations ensure simple set-up and commissioning

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

**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
**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
YOUR SOLUTION FOR THE MOST DEMANDING PROCESS APPLICATIONS

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/m³ (0-3 g/cc)
- **Density Accuracy**: ±0.1 kg/m³ (±0.001 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)

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

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