REVOLUTIONIZE YOUR ONLINE VISCOSITY MEASUREMENT TECHNOLOGY

Micro Motion Heavy Fuel Viscosity Meter (HFVM) Viscomaster
INTroducing Emerson’s Micro Motion® Heavy Fuel Viscosity Meter (HFVM) Viscomaster

Viscosity and Density 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 Heavy Fuel Viscosity Meter (HFVM) Viscomaster delivers accurate, online viscosity and density measurement using a direct insertion tuning fork design. This rugged and reliable meter raises the standard for inline viscosity and density monitoring and enhances the product quality, blending operations, and efficient combustion of process liquids as diverse as Heavy Fuel Oil, asphalts and refined products.

The Micro Motion HFVM Viscomaster Delivers:

Superior Measurement Capabilities

• A rugged, multi-variable direct insertion sensor that provides the best, real-time measurement of viscosity (±1% of calibrated range max) and density (±1.0 kg/m³)

• Application flexibility with pipeline, bypass (fast) loop and tank installation support

A World-Class Leading Electronics Platform

• Local display and user interface that allows for a simplified device management, minimizing maintenance requirements

• Simple integration into DCS, PLC and flow computers (Analog 4-20mA, HART, Modbus RS485)

• Revolutionary device diagnostics and verification methods

Robust and Flexible Measurement

• Application-specific measurement and output configurations to ensure simple set-up and commissioning

• Optimized design; insensitive to vibration, temperature and pressure variations
**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 Viscosity and Density Performance**
A choice of installation options for replacement solutions of capillary and torsional meters give you the performance you need.

**Intuitive configuration and usage**
Integral HART & Modbus I/O allows direct connection via ProLink III, HART communicator or integral display.
**Land Based Combustion Control**
- Oil Fired Heater and Boiler Control
  Improved fuel atomization consistency with varying feed stock quality
- Maintenance and Emissions
  Reduced fiscal exposure through optimized maintenance cycles and reduced NOx/SOx levies

**Marine HFO Viscosity Control**
- Marine HFO Combustion Control
  Maximize consistent engine power output irrespective of fuel variations
- Measurement Reliability
  Reduced maintenance and operating costs

**Marine Gas Oil Viscosity Control**
- Efficient MGO Viscosity Control
  Fast response kinematic viscosity optimizes HFO/MGO cut-over times
- Robust Sensor Design
  Reduced maintenance & downtimes optimize operating costs
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.
Heavy Fuel Viscosity Meter (HFVM) Viscomaster Specifications

Viscosity Measuring Range 0-100cP

Viscosity Accuracy ±0.2cP (0-10cP) then ±1%
Full scale of calibrated range max
±1cP (10-100cP)

Density Measuring Range 0-3000 kg/m³ (0-3 g/cc)
Density Accuracy ±1.0 kg/m³ (±0.001 g/cc)
Equivalent to: ±0.5°API, ±0.1% Conc.

Temperature Accuracy BS1904, DIN 43760 Class ‘B’ (±0.30 ±0.005 X T)°C

Safety Approvals ATEX, CSA, IECEx
(Explosion/Flame-Proof) – Zones 1 & 2

Display Two-line, LCD screen
Optical switch configuration

Outputs Standard: 4-20mA, HART, Modbus RS-485

Protection Class Ingress Protection: IP66/67, NEMA4
EMC compliant with EN61326

Dimensions 355 mm (h) x 163 mm (w) x 163 mm (d)
(Typical short stem version)

Weight (Typical) 6.7 kg (15 lbs)

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