

# Smart Meter Verification

Easily verify meter performance - in line and on demand



Smart Meter Verification



# Micro Motion® Smart Meter Verification – only from Emerson®

The only tool to deliver absolute confidence in measurement integrity and performance - sensor through electronics - in less than two minutes.

## Micro Motion Smart Meter Verification Benefits

### Reduce Costs

- Save thousands by eliminating labor, outsourced calibration services, production interruption and potential damage
- Extend expensive proving and calibration cycles

### Increase Uptime

- No need to remove the meter from the line or stop the process flow to test measurement integrity
- Rapid feedback for troubleshooting to isolate meter performance and focus on process dynamics

### Eliminate Uncertainty

- Run Smart Meter Verification on demand or on a pre-determined schedule for ongoing assurance of critical flow point measurement health and stability
- Meter health verification results are immediately accessible for early warning of problems
- Access stranded diagnostics or verify the performance of difficult-to-reach devices with Emerson's Smart Wireless

### Improve Quality & Safety

- Test meter against factory specifications to ensure peak performance and optimal, on-spec production
- Establish audit trail for each meter with stored results, easily captured and trended for visual analysis and reporting
- Avoid unnecessary trips to the field and testing procedures that break the process seals



Micro Motion Smart Meter Verification is ideal for:

- Routine verification checks
- Performance checks for custody transfer field proving
- Troubleshooting to isolate problems and eliminate flow measurement suspicions
- Safety checks to determine actual tube structural integrity
- Tracking erosion or corrosion when it is expected as part of the process
- Quality check to support required procedures

## Inherent Advantages of Micro Motion Coriolis

- No moving parts result in no maintenance or repair
- Install anywhere with no flow conditioning or straight pipe run required
- Accuracy over a wide flow range from a single meter to optimize plant efficiency
- Repeatable, direct mass flow measurement to eliminate problems of volume measurement



**MVD**™  
Technology

# Smart Meter Verification

## *delivers* absolute measurement certainty

### Better Measurement Means Better Process Management

Micro Motion Coriolis meters have no moving internal parts resulting in no wear and tear, no maintenance and an expectation that meter calibration will not drift over time. These characteristics, coupled with exceptional accuracy and the delivery of mass, volume, temperature and density measurements from a single device, have supported the widespread adoption of Micro Motion meters in processes around the world for over three decades.

As the mechanical stiffness, or rigidity, of Micro Motion Coriolis flow tubes are directly related to its flow calibration factor, Smart Meter Verification is able to identify changes, damage or degradation in the measurement performance of the meter. Other techniques to verify meter health, such as damping trending, are highly affected by fluid properties, changes in temperature, viscosity or density, the presence of entrained air and require user analysis of the data to identify if a meter change is acceptable.

Improved verification work practices will improve the overall operation of your process. With its immediate pass/fail verification alert, you can count on Smart Meter Verification as the only technology available for complete and instant Coriolis verification of sensor, drive and full electronics.

- Troubleshoot any process and isolate/confirm meter performance with rapid and clear verification feedback
- Pro-actively monitor the condition of meters with regular verification, trending and forecasting the need for calibration
- Assure stability of operation with ongoing measurement verification, including verifying meter after process events or upsets
- Accessible directly at the meter, through digital connectivity or via the Smart Wireless THUM Adapter, provides flexibility of use.



Schedule checks with immediate results using the local electronics display, remotely using Hart, Modbus, FOUNDATION fieldbus™, DeviceNet, ProLink II, Profibus, or AMS Device Manager, or through digital control networks or Smart Wireless.

“Smart Meter Verification runs automatically, is completely non-invasive and provides us with added confidence that our critical measurements are sound. Another huge benefit is on the integrity side with our quality control program. Until meter verification came along there was no non-intrusive or nondestructive method of assuring the pressure rating of the Coriolis tubes still met the manufacturer original specifications. Now we have that ability. We’re excited to explore expanding this technology to custody transfer and other critical measurement points.”

Guy Fulkerth  
Instrument Specialist / Maintenance  
Team Leader  
Keyera Energy

#### Key Specifications

**Sensor Compatibility:** ELITE® Series  
H-Series  
F-Series

**Transmitter Compatibility:** 1000/2000/3000 Series with MVD™  
See Product Data Sheet for details

Emerson’s AMS™ Suite: Intelligent Device Manager 9.0: Includes the Meter Verification SNAP-ON application for Micro Motion ELITE® Coriolis meters







*Emerson's Micro Motion devices are known globally in over 85 countries for 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

- Meter verification of the complete Coriolis meter - sensor through electronics - with no downtime
- Exceptional measurement and operating performance in entrained gas conditions
- World-leading dedicated density measurement devices
- 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



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