

A photograph of an industrial facility featuring large, cylindrical storage tanks and a complex network of pipes and valves. In the foreground, a stainless steel flow meter assembly is mounted on a metal frame. The assembly includes a vertical pipe section and a horizontal pipe section with a flange. The background shows more industrial structures under a clear blue sky.

**Achieve Absolute Measurement  
Confidence**

### **Smart Meter Verification**

Easily verify flow meter performance in-line and on demand.





## Maintaining measurement accuracy and meter integrity is a challenge

You have a lot to manage when it comes to verifying the performance of your instruments and optimizing regulatory compliance. Smart Meter Verification is the only tool to deliver absolute confidence in measurement integrity and performance to help address and resolve these common challenges:

"With over 1000 instruments in operation, we need a single diagnostic that will verify Coriolis meter performance."  
– Instrumentation Engineer



"The average cost of calibration is \$1,000 to \$5,000."  
– Metrology Manager



"The average out-of-service time to recalibrate a meter is 1 to 6 weeks."  
– Instrumentation Engineer



"\$160,000 in staffing is required to complete calibrations for 26 new flow points across six plants."  
– A Major US Utility Provider





"Instead of being uncertain about the state of your meter, what if you could monitor measurement accuracy and meter integrity without stopping your process?"  
- Guy Fulkerth, Instrument Specialist / Maintenance Team Leader, Keyera Energy



## Achieve confidence in your measurement and insight into your process



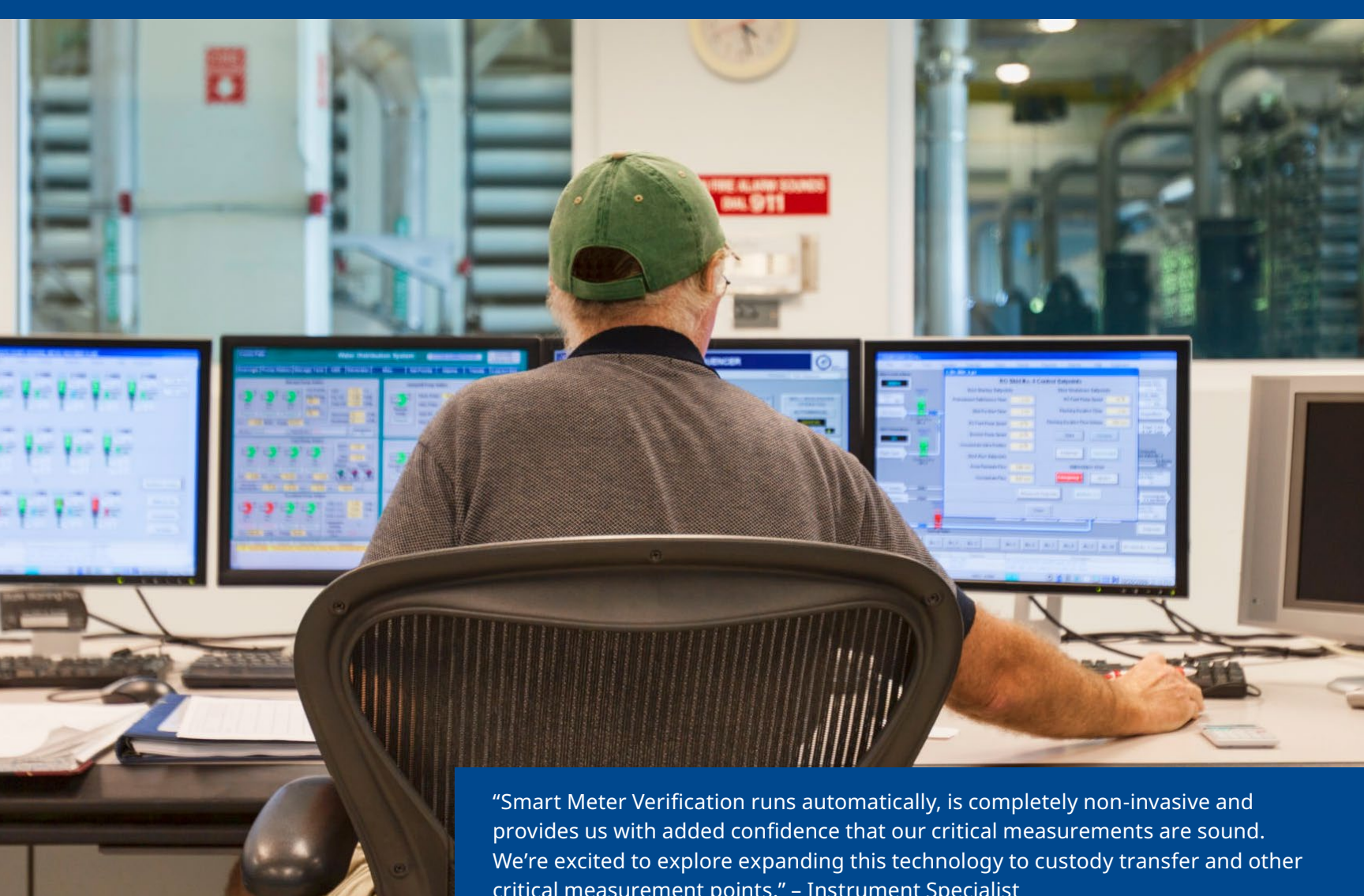
Smart Meter Verification transforms diagnostic data into actionable information to ensure greater operational safety, quality, efficiency and certainty.

Expensive proving and calibration cycles can now be extended to save thousands by eliminating labor, outsourced calibration services and production interruptions with a standard, traceable calibration verification.

Measurement performance is confirmed, under current flowing conditions, to be within factory accuracy specifications.

These actionable instrument and process diagnostics can be accessed across your existing operational infrastructure by integrating with digital hosts like AMS with SMART Wireless.

There is no longer a need to interrupt your process to achieve confidence in your instruments, measurements and process.



"Smart Meter Verification runs automatically, is completely non-invasive and provides us with added confidence that our critical measurements are sound. We're excited to explore expanding this technology to custody transfer and other critical measurement points." – Instrument Specialist

## Reduce costs

"I know that sending my meter to be calibrated at a lab won't make it any better, so Smart Meter Verification gives me the confidence to save money and only calibrate my meter when it's needed."

– Joel Singleton, Process Control I&E Engineer, Evonik Industries

## Eliminate uncertainty

"Smart Meter Verification now tells me if the meter is measuring within factory uncertainty specifications – under the current flowing conditions, not just in the lab."

– Metrology Manager, Major Global Chemical Company

## Increase uptime

"Process monitoring via wireless saves \$5000 for every installation point. For our multiple meters, Green House Gas meter verifications save us \$18,000 per year without process downtime."

– Kien Vo, Manufacture Technology Principal Engineer, Dupont Fayetteville

## Improve quality and safety

"Smart Meter Verification improves safety by eliminating human factors and loss of the SIS measurement function during proof testing. When proof testing means taking the meter out of service and bringing to a calibration facility, in-line verification is the answer."

– Kees Kaysjer, Global SIS Instrument Lead, Dow Chemical Company

# Delivering insight for better measurement and better process management



## Smart Meter Verification overview

Smart Meter Verification enables you to check your flow meter's health without taking your meter out of line. It's algorithm provides meter health insights to empower users to take action and avoid safety and measurement issues due to corrosion, erosion, over-pressurization, build-up and other sources of potential instrument damage.

Smart Meter Verification performs a traceable calibration verification with a patented tube integrity diagnostic, as Coriolis meter calibration factors are directly related to the mechanical stiffness of the flow tubes. This method provides early detection of instrument damage, before it creates a safety risk or accuracy shift. This traceable calibration verification, as well as a verification of all electrical components, is now included as a standard feature.

[Emerson.com/SmartMeterVerification](https://emerson.com/SmartMeterVerification)



## Benefits of Smart Meter Verification

- Troubleshoot any process and isolate/confirm meter performance with rapid and actionable verification feedback
- Proactively 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, for flexibility of use



## Easily monitor meter performance without interrupting your process

### Agency recognition



Traceable calibration verification results on the Smart Meter Verification report are recognized to extend proof-test and recalibration intervals by agencies including the EPA, FDA, API, Exida, GOST-R, and more.

### Non-uniform coating detection




Enhance maintenance and Clean-In-Place (CIP) programs to avoid proving failures, measurement inaccuracies, and quality challenges.

### Intuitive interface



Quickly generate agency-recognized reports through ProLink, Ethernet webpages, and AMS.

## Two versions to address your verification needs

 <b>Transmitter Compatibility</b> <small>(800 Enhanced Core Processors/Boards only)</small>	Basic	Professional	
	Direct Connect, 1500, 1600, 1700, 2400S, 2500, 2700, Series 3000, 4200, 4700, 5700	Direct Connect, 1500, 1600, 1700, 2400S, 2500, 2700, Series 3000, 4200, 4700	5700
Access	Included	Licensed	90-Day Trial, Licensed
Calibration Coefficients Audit*	✓	✓	✓
Zero Audit*	✓	✓	✓
Electronics Verification	✓	✓	✓
Automatic Test Scheduler	✓	✓	✓
History of Previous 20 Results	-	✓	✓
Verification Report	-	✓**	✓**
Non-Uniform Coating Diagnostic	-	✓***	✓
Multiphase Diagnostic	-	-	✓+
Flow Range Diagnostic	-	-	✓+

\* Available with ProLink III Basic or Professional, AMS SMV Snap-On, and webpage (Ethernet devices).

\*\* To generate a test report (for a report to exist), the test host must be ProLink III Basic or Professional, webpage, or AMS SMV SNAP-ON. To generate previous test reports (for previous reports to exist), the test host must have been ProLink III Basic or Professional and the same PC must be used that ran the test. You can view results for all tests that are in the PC database (greater than 20).

\*\*\* Available with 1600, 4700 & 5700 transmitters only.

### Basic

- Calibration and electronics verification now included with all Enhanced Core Processors
- Follow actionable NE107 alert recommendations to resolve operational challenges quickly
- Verify measurement is within factory specification under current flowing conditions

### Professional

- Optimize instrumentation and process compliance
- Generate reports recognized by regulatory agencies (e.g. EPA, FDA, API, SIS) to extend recalibration, proving and proof-test intervals
- Detect non-uniform coating to protectively clean equipment before it leads to quality, safety or proving challenges
- Improve measurement performance by diagnosing process upsets or an improper installation

# Delivering insight for better measurement and better process management



**MICRO MOTION™**

Smart Meter Verification is an easy-to-use, automatic diagnostic tool that monitors the flow meter's performance and integrity without interrupting your process or your measurement

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