Emerson Introduces Powerful Diagnostics For Flow Meter Intelligence And Measurement Confidence

Advanced Smart Meter Verification diagnostics to deliver real-time intelligence and calibration of Coriolis and magnetic flow meters for a complete process overview and greater operational certainty

Emerson has launched the latest version of its Smart Meter Verification software for Coriolis and magnetic flow meters, providing flow meter verification on demand and empowering process engineers, technicians and operators to look beyond the meter and make real-time decisions based on the most advanced meter and process diagnostics in the industry today.

New tools in the Smart Meter Verification software allow users to fine tune and adjust their engineering processes to ensure absolute measurement confidence and top performance in the chemicals, food and beverage, life sciences, oil and gas, and other process industries. In addition to onboard diagnostics, Smart Meter Verification also accelerates implementation of companies' Industrial Internet of Things (IIoT) strategies with its powerful remote diagnostics, digital intelligence and multiple data points providing users with a complete process overview and greater operational certainty.

Rather than costly and time-consuming calibrations and laboratory testing, leading to production interruptions, shut-downs and safety concerns, the advanced Smart Meter Verification provides in situ calibration verification on-demand without any impact on process or meter outputs. The new system also provides operators with crucial information on other flow issues across the plant.

"Whereas traditional diagnostics often provide just an entry point to further, time-consuming analysis, the Smart Meter Verification system generates real-time, decision-making intelligence and flow measurement confidence here and now," said Taylor Scott, software product specialist, Emerson Automation Solutions. "For plant operators and engineers, this move from reactive to predictive diagnostics means improved knowledge, operational certainty and productivity, and the acceleration of IIoT strategies."

Key features of the advanced Smart Meter Verification include:

•	Innovative algorithms that detect coating, corrosion and erosion in the meter with remedial action able to be instigated immediately. Emerson is also the first company to integrate a 99 percent-confidence statistical meter damage detection algorithm that enables early detection without false alarms.

•	New process diagnostic capabilities that include a "flow range" diagnostic, which alerts the engineer when flow rates are not within the specified range of the meter; instrument diagnostics that can identify if entrained gas is in the process; and immediate alerts to process upsets that may affect measurement performance, such as severe aeration.

•	Tube coating diagnostics that offer crucial data points and drive valuable information to the end user, alerting them when the meter is coated by something unexpected from the process line, particularly important in food and beverages and life sciences applications.

•	Clear and transparent verification audit trails, and advanced visual analysis and reporting software that meets third party regulatory agency compliance requirements in lieu of meter calibration, inspection or removal. By providing a time-stamped verification report, an increasing number of third-parties, such as the U.S. Food and Drug Administration and the U.S. Environmental Protection Agency, recognize verification technologies, such as Smart Meter Verification, as a method to confirm instrument calibration and extend recalibration or proving intervals.

•	Reduced meter maintenance requirements with vital variables, such as mass flow, verified to be within factory accuracy specifications. Smart Meter Verification also generates

detailed information on all sensors, including serial numbers, condition temperature and calibration information, ensuring a simple path to instrument and process compliance. Emerson's Smart Meter Verification diagnostics are an easy-to-use, automatic tool for Micro Motion™ Coriolis and Rosemount™ magnetic flow meters that monitor the entire flow meter's performance and integrity and are applicable in a wide variety of process industry sectors, such as oil and gas, food and beverage and chemicals.