Take Full Control of Your Measurements
Meascon™ – the CBM System for Ultrasonic Flow Metering Systems

Article

Background
With a broader hydrocarbon mix and an increased number of pipelines, some carrying contaminated natural gas, transport grid operators need greater insight into the process. Undetected errors in measurement resulting in lost or unaccounted for gas can quickly erode profits. And the same goes for unplanned downtime.

High accuracy and reliability of the metering solution is key, and operators need consistent, precise measurements they can rely on. To begin with this requires an optimized system design that ensures the metering system is behaving in the field as precise and repeatable as it did during the calibration at the calibration facility. With the experience of the Elster Precision Solutions engineering teams you can be assured that this is under control.

Once installed in the field the condition of the metering system can now be monitored continuously by gathering relevant data that is available at the primary and secondary measuring devices in the field. Meascon makes it possible to take this information and make it useful. It regularly pulls and stores relevant diagnostic data and provides a diagnostic dashboard with a real-time view of your gas metering station(s). It automates condition-based monitoring 24/7, detects problems before they occur, and helps to keep measurement uncertainty as low as possible.

Streamlining the maintenance process and remote support options reduce operational expenses.

Faster, More Efficient Diagnosis
Intuitive and easy to use, Meascon enables detailed data analysis for making better decisions regarding maintenance and recalibration. The system allows for easy health monitoring of your complete metering system. The powerful condition-based monitoring capabilities detect any significant change either in the flow meter itself or in the process and environment in which it is operating. It runs on a PC, tablet or smartphone, makes sense of complicated data, shows trends, and allows users or a Honeywell expert to see a problem and troubleshoot it.
Changing your Maintenance Strategy

When traditional time-based maintenance (TBM) is used, measuring instruments are calibrated at regular intervals, whether they need it or not. If the risk-based maintenance (RBM) method is applied, the calibration frequency is reduced after a satisfactory level of stability has been demonstrated. By contrast, with condition-based maintenance (CBM), maintenance is only performed after one or more indicators show that the equipment is going to fail soon or that the equipment performance is deteriorating – thus maintenance only when needed.

With TBM and RBM, the meters are calibrated even when nothing is wrong. Meascon historical diagnostic information can be used as a basis to extend the periods between the calibration intervals specified by the regulatory authorities. This in turn may result in a shift from a regime of “calendar-based” off-site calibration to off-site calibration “as required”.

Extending a recalibration interval from one to two years can save $50,000, but correcting inaccuracy can be worth more. An error of 0.5% in gas measurement can add up to $1 million in the course of a year. You thus want to detect that error as early as possible, not during a recalibration after one or more years when $1 million of revenue has gone missing.

Summary

Honeywell’s CBM system, Meascon™, fully integrates Honeywell’s high-pressure products (such as ultrasonic meters, flow computers and gas chromatographs) and takes performance to the next level.

Meascon enables gas operators to implement effective preventive maintenance strategies and minimize instrument calibration requirements in order to reduce their operating expenses.

The information can be fed directly into a preventive maintenance schedule, thus improving response time for diagnosing and rectifying any potential meter or process issues and significantly reducing service engineer site visits. It increases the reliance and confidence in the metering section and reduces the lost and unaccounted for (LAUF) gas caused by faulty measurements, which in turn decreases costs and the need to back calculate incorrect measurements. The audit trial supports third-party audits and metrological approvals.

In a nutshell: A reliable all-in package for our customers!

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For More Information

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