

Exceptional performance in
high noise and slurry conditions



Rosemount™ Slurry Magnetic Flow Meter
Delivering confidence in measurement accuracy through advanced
signal processing and diagnostics in real-time



You face obstacles in your business, don't let sensitivity to process noise be one of them.

Rock, sediment, and particle impingement within the flow stream can all affect the stability of your measurement reading. Flow signal stability and real-time diagnostics are required to ensure measurement confidence and allow operators to proactively control their loop, improving quality, reducing raw material cost, and minimizing waste and re-work.

Environmental non-compliance costs companies millions of dollars. In a recent survey, seventy-four percent of respondents experienced regulatory fines due to non-compliance. Equipment with accurate, repeatable flow values is essential.*



Traditionally, operators deploy excessive analog damping strategies to stabilize and control flow measurement readings, which leads to an increase in raw material costs and potentially compromises product quality and rework.



Embedded diagnostics are gaining increasing importance across industries. Implementing measurement devices that can provide insight into installation conditions, process conditions, and device health are key enablers for predictive maintenance.



The Costs of [Non] Compliance with EHS Regulations by Mr. Tjeerd Handel-Blackford April 2017



Operators need consistent, stable flow measurements. The Rosemount Slurry Magnetic Flow Meter's advanced signal processing techniques filter out noise and provide a stable flow measurement.

Rosemount Slurry Magnetic Flow Meter delivers unmatched signal stability.



The Rosemount Slurry Magnetic Flow Meter is specifically designed to address the unique issues our customers face in high process noise situations and is comprised of two components that each deliver unique capabilities and value to slurry flow measurements. The Rosemount MS Slurry Magnetic Flow Meter Sensor provides a robust and reliable metering element that is mounted within the piping system. The Rosemount 8782 Slurry Magnetic Flow Meter Transmitter provides industry leading advanced signal processing, process diagnostics, and Smart Meter Verification™ capabilities to provide an accurate and stable flow measurement with maximum confidence.

ROSEMOUNT™



Having a responsive and accurate flow signal to your downstream processes is critical. The Rosemount Slurry Magnetic Flow Meter delivers industry-leading measurement accuracy and a stable flow measurement.

Don't let particles in the flow stream create instability in your flow measurement.

The Rosemount Slurry Magnetic Flow Meter maintains a stable flow signal regardless of particle impingements in the process while also providing real-time diagnostics to ultimately deliver the confidence you need in your flow measurement.

Reduce reliance on traditional damping techniques.

With advanced signal processing routines and enhanced coil drive techniques, the Rosemount 8782 Slurry Magnetic Flow Meter Transmitter enables a stable flow signal and mitigates the need for additional analog damping techniques.

Solve process noise problems with new signal processing.

Utilizing over 200 real-world harsh environment noise samples during the development, the all new signal processing in the Rosemount Slurry Magnetic Flow Meter ensures optimum performance regardless of your work locale or process conditions.

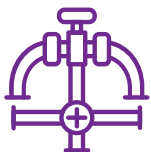
Eliminate restrictions from harsh and remote operating environments.

The Rosemount MS Slurry Magnetic Flow Meter Sensor has an all-welded housing with a wide variety of flange options, electrode and liner materials to reduce challenges in managing your assets and risk exposure when operating in harsh environments.



Don't let your flow signal stability be rocked by debris.

Whether you are measuring flow from pulp stock or mining ore, particulates in the flow stream can result in an unstable measurement reading. The induced voltage measured by the electrodes when using a standard magnetic flow meter struggles to consistently and accurately separate the flow signal from the noise. The Rosemount MS Slurry Magnetic Flow Meter Sensor and the Rosemount 8782 Slurry Magnetic Flow Meter Transmitter together make the Rosemount Slurry Magnetic Flow Meter utilizing advanced signal processing to provide confidence in the accuracy of your challenging flow measurement.



What's your challenge?

Process noise and inconsistent measurement readings affect your plant processes, reduce your operating efficiency, and reduce your overall operating confidence.



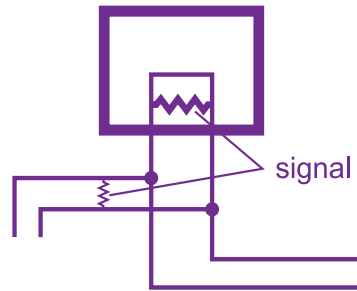
What's your opportunity?

With the unique ability to filter out process noise, the Rosemount 8782 Transmitter uses advanced signal processing to create a stable flow reading and ultimately give you the confidence you need in your measurement readings.

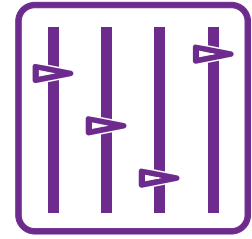
Maintain a steady and responsive flow signal



A stronger magnetic field produces a robust signal capable of cutting through process noise.



The latest in advanced signal processing effectively minimizes noise within the flow stream and mitigates the need to apply traditional damping techniques.



Multiple preset advanced signal processing routines are available to quickly and easily change the level of signal processing applied by the transmitter.

Diagnostic insight to elevate your measurement confidence



Stay in tune with your process as targeted alerts are sent from the transmitter to wherever operators monitor their flow measurement readings.



Smart Meter Verification™ provides an indication of meter health and performance before issues arise, enabling proactive and precise diagnostic insight.



Tackle troublesome noise with high process noise diagnostics and selectable high and low coil drive frequencies.

Versatility to meet your process needs



A wide variety of liner materials, electrodes and liner protectors are available to increase the longevity and withstand the harshest of process conditions.



Simplified installation with the availability of 12V to 24V DC power options and grooved coupling pipe connections in addition to traditional offerings.



The 8782 transmitter meets increased safety demands and is suitable for high dust installations, and the MS sensor can weather hazardous area installations.

Rosemount Slurry Magnetic Flow Meter Platform



Robust solutions for challenging applications

- Designed to measure difficult applications such as sand, high solid content fluids, pulp fibers, or installations generating excess noise
- Reliable in the harshest environments with an all-welded sensor housing

Overcomes common flow signal challenges

- Advanced diagnostics are standard in the 8782 Transmitter with selectable levels of advanced signal processing, eliminating signal spikes and noise
- The 8782 Transmitter has enhanced signal processing, stabilizing an otherwise noisy process flow signal without having to compromise on responsiveness

Optimum performance

- Minimize maintenance and repair with an obstructionless design featuring no moving parts, ideal for measuring conductive slurries
- No moving parts or obstructions means no mechanical failure or material build up, for maximum reliability
- Smart Meter Verification provides diagnostics with real-time alerts, notifying of issues before there are problems

Slurry Magnetic Flow Meter overview

With over twenty-five years of experience delivering high-signal products, Emerson's Rosemount Slurry Magnetic Flow Meter redefines what's possible from your flow measurement devices. Noise is common in process fluids that contain solid particulates, like sand or long fibers, due to the solids rubbing against the electrodes. Measuring these flows can be troublesome, but pairing advanced signal processing with real-time diagnostics, the Rosemount Magnetic Slurry Platform delivers flow measurement confidence.

Rosemount MS Slurry Magnetic Flow Meter Sensor

- Tunable Empty Pipe diagnostic minimizes issues and false readings when the pipe is empty
- Guard against installation damage and leading-edge wear with optional lining protectors
- Reduce sensor inventory with a dual calibration option
- Avoid process shutdown with a removable and replaceable terminal block that enables repairs in the field



Rosemount 8782 Slurry Magnetic Flow Meter Transmitter

- Gain the top benefits of AC magnetic meter systems combined with the stability and performance of pulsed DC technology
- Quickly verify installation integrity with included Ground/Wiring Fault Detection diagnostics
- Ensure the best performance possible with multiple pre-configured signal processing modes that adapt to changes in the noise level
- Eliminate uncertainty with on-demand or continuous verification for meter health and stability with Smart Meter Verification™



Rosemount 8785 Slurry Magnetic Flow Meter Calibration Standard

- Designed specifically to work with the Rosemount 8782 Slurry Magnetic Flow Meter Transmitter
- Portable and independent on-site validation of the transmitter without needing to remove the transmitter from the facility
- Ability to validate the flow signal at 0 ft/s (0 m/s), 3 ft/s (0.91 m/s), 10 ft/s (3.05 m/s), 30 ft/s (9.14 m/s)



For more information, visit www.Emerson.com/RosemountSlurryMagnetic



Tough slurry applications require quality measurements.

Accurate measurement of process flow rates is essential to running a mill or plant efficiently. In pulp, paper, mining, and fracking applications, achieving a usable flow measurement is compromised by the presence of solid particulates, such as mined ore, pulp stock or sand, that can create instability or noise in the measurement.



What's your challenge?

It is difficult to accurately measure process flow rates in slurry and high noise applications.



What's your opportunity?

Being able to identify a change in process flow in real-time helps reduce raw material costs and improve product quality.

Meet or exceed environmental compliance regulations

Fracking applications require accurate measurement of what is pumped downhole.

- Accuracy of 0.25% standard even in high noise applications means accurate blends of water and sand, reducing well challenges
- Powered by 12V to 24 DC power input so there is no need for a converter or additional wiring
- Grooved couplings for quick installation and removal
- Produced water can be accurately measured for processing



Signal interruption leads to missed plant targets

Pulp fibers striking across the electrode can interrupt the measurement signal and affect accuracy.

- Reduce impact from pulp fibers on flow signal with all new advanced signal processing
- Simplified problem identification and troubleshooting with Smart Meter Verification to quickly identify process issues
- Improve liquor recovery with accurate measurements



Process instability is costly

Mining slurry particulates cause signal noise, resulting in reduced recovery and waste of chemical additives.

- Provides accurate, repeatable flow values for environmental compliance reporting
- Advanced signal processing enables stable flow measurements, allowing for optimized process control
- Alternative quick connections available for simplified installation or removal



Cut through the noise with the Rosemount Slurry Magnetic Flow Meter for an accurate, stable flow measurement.



Coupled with our exceptional Emerson Rosemount product offering, you have access to local and regional service centers for support with proven application expertise.

ROSEMOUNT™

Emerson Automation Solutions

Worldwide Headquarters
7070 Winchester Circle
Boulder, Colorado USA 80301
T: +1 800-522-6277
T: +1 303-527-5200
F: +1 303-530-8459
Mexico: +52 55 5809 5300
Argentina: +54 11 4809 2700
Brazil: +55 15 3413 8000
Chile: +56 2 2928 48 00
Peru: +51 15190130

Emerson Automation Solutions

Central Europe: +41 41 7686 111
Eastern Europe: +41 41 7686 111
Dubai: +971 4 811 8100
Abu Dhabi: +971 2 697 2000
Austria: +43 2236 607-0
France: 0800 917 901
Germany: +49 (0) 2173 3348 0
Italy: 8008 77334
The Netherlands: +31 318 495 555
Belgium: +32 2 716 77 11
Spain: 900 901 986
U.K.: 0870 240 1978
Russian/CIS: +7 495 995 9559

Emerson Automation Solutions

Australia: (61) 3 9721 0200
China: (86) 21 2892 9000
India: (91) 22 6662 0566
Japan: (81) 3 5769 6803
South Korea: (82) 31 8034 0000
Singapore: (65) 6 363 7766
Chile: 56 22 4310 7432



Emerson.com



Facebook.com/EmersonAutomationSolutions



LinkedIn.com/company/Emerson-Automation-Solutions



Twitter.com/EMR-Automation

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2020 Emerson Electric Co. All rights reserved.

BR-002344 / Printed in US / 04-20



CONSIDER IT SOLVED™