

A photograph of a male worker in a blue uniform and yellow hard hat, wearing safety glasses and white gloves, working on a large industrial pipe. He is looking intently at the equipment. In the background, another worker in a blue uniform is partially visible. The scene is set in an industrial facility with various pipes and structures.

**Reduce Your Wiring, Not Your Expectations.**

**Micro Motion 4200 2-Wire Transmitter**

Improve flow measurement performance and save on the cost of installation



## Reducing planning, engineering and installation costs is challenging.

You need to replace your 2-wire flow meters, but you don't want to increase your wiring to support the traditional Coriolis meter. You also want better accuracy in flow and density measurements and the addition of Smart Meter Verification would give you confidence in meter performance.

What if you could have the accuracy of a Coriolis meter without running additional wiring? Save on installation costs and gain greater measurement confidence.

“We don't have enough room for more wiring in our plant. I want to be able to use my existing wiring.”  
– E&I Technician



“I don't know if my meter is running reliably.”  
– E&I Technician



“Capital projects are complex and costly.”  
– Plant Manager



“Running additional wiring is a safety issue in our plant.”  
– Environmental Health and Safety Manager





Don't compromise quality and space—instead, reduce your planning, engineering and installation costs while also lowering your risk of safety issues. Have confidence that the meter is working optimally at all times.

## Micro Motion 4200 2-wire transmitter reduces installation costs while providing confidence in your measurement.



The Micro Motion 4200 2-wire loop powered transmitter makes it possible to replace existing 2-wire flow devices with minimal effort and without incurring additional power or cabling costs. Easily integrate Coriolis meters into existing processes for improved measurement and reduced maintenance.

**MICRO MOTION™**



“The 4200 2-wire transmitter provides a reliable Coriolis solution for replacing unreliable 2-wire flow points.” – Flow Measurement Expert

## Increase plant throughput, quality and reliability

The ability to improve batch throughput and optimize reaction time means higher yields and profitability.

## Reduce capital expenditures

Get superior measurement quality at all times without running additional wiring. Replace legacy technology with ease of installation and gain optimal turndown even at low end measurements.

## Optimize your plant for wireless meter monitoring

The wireless HART THUM adapter enables you to remotely monitor your process, providing a flexible output solution.

## Protect your people from running unnecessary wiring

Without the need to run additional wiring to install the 4200 2-wire, you also reduce installation hazards for your plant and personnel.



## Stay ahead of the competition by delivering superior performance.

New agile competitors are entering the chemical and refining markets, producing products at a lower cost. To stay ahead of the competition you're being asked to reduce planning, engineering and installation costs while maintaining product quality and process uptime. Let us provide you with the tools you need, such as the Micro Motion 4200 2-wire transmitter which delivers superior performance and can easily be retrofitted into your plant, without the need for additional wiring.

### What's your challenge?



"We don't have enough cable rack room for additional wiring. I want to be able to use my existing wiring."

—E&I Technician

### What's your opportunity?



The Micro Motion 4200 2-wire loop powered transmitter makes it possible to replace existing 2-wire flow devices with minimal effort and without incurring additional power or cabling costs.

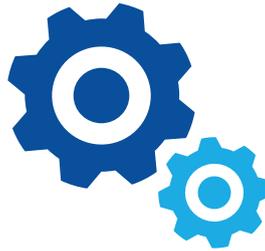
## Reduce wiring and capital expenditures with Coriolis technology

### Accurate and repeatable measurement



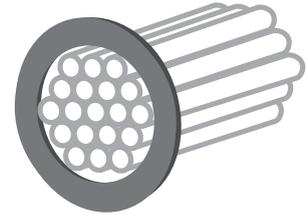
With the benefits of Coriolis technology in a 2-wire device, an accurate and repeatable flow measurement can be achieved.

### No moving parts



Without any moving parts that will wear out over time, Coriolis technology provides a robust solution that will minimize unnecessary plant shutdowns.

### No flow conditioning or straight pipe runs necessary



Without the need for flow conditioning or straight pipe runs, 2-wire Coriolis reduces the amount of available space necessary for each flow point.

## Have confidence that the meter is working properly

### Smart Meter Verification



Smart Meter Verification provides confidence that the meter is working properly and can alert the user of any changes in meter health with a suggested course of action.

### Data Historian with Real-Time Clock



Data Historian onboard offers a complete audit trail and alert log to determine process issues. The real-time clock time stamps process data, alerts, Smart Meter Verification reports and audit logs.



For more information, visit [www.Emerson.com/MicroMotion4200](http://www.Emerson.com/MicroMotion4200)

## Micro Motion 4200 2-wire transmitter: reduce your wiring, not your expectations.



### Loop-Powered Technology

- Low energy, loop-powered design enables integration of Coriolis into existing processes
- Improves measurement quality and reduces maintenance for all flow points

### World-Class Diagnostics

- Smart Meter Verification
- Data Historian and real-time clock
- Zero Verification

### Safety

- No need to run additional wiring retrofitting flow measurement points
- SIL-2 capable with single use and SIL-3 capable with multiple use

## Micro Motion 4200 transmitter overview

The 4200 2-wire transmitter delivers superior measurement performance and includes onboard features that ensure your meters are running at optimal specifications at all times. With Data Historian and a real-time clock, you can monitor your process and capture an audit trail of events.

The 4200 2-wire transmitter is compatible with a range of sensors including ELITE, F-Series and H-Series, and is available as a remote mount option.

[www.Emerson.com/MicroMotion4200](http://www.Emerson.com/MicroMotion4200)

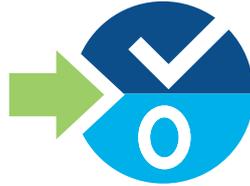
## Features that make your work easier and more effective

### Capacitive Touch Display



Reduces commissioning time with a fully configurable display with no need for additional equipment.

### Zero Verification



Checks process stability, runs an algorithm to determine if the meter should be re-zeroed and provides confidence in your measurement.

### Real-Time Clock



Time stamps process data, alerts, Smart Meter Verification reports and audit logs.

## Compatible Sensors

### ELITE™



- Unmatched flow and density measurement for liquids, gases and multiphase flow
- CMF007 - CMF350 Coriolis flow meters

### F-Series



- Preferred choice for process control applications
- F025-F300 Coriolis flow meters

### H-Series



- Ideal for hygienic process control applications
- H025-H300 Coriolis flow meters



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# Increase throughput, minimize waste, and lower installation costs with 2-wire Coriolis technology



## Coriolis technology overview

The basic operation of Coriolis flow meters is based on the principles of motion mechanics. As fluid moves through a vibrating tube it is forced to accelerate as it moves toward the point of peak-amplitude vibration. Conversely, decelerating fluid moves away from the point of peak amplitude as it exits the tube. The result is a twisting reaction of the flow tube during flowing conditions as it traverses each vibration cycle. With no moving parts in the flow path that can wear out over time, this can reduce unscheduled plant shutdowns. Coriolis meters do not require flow conditioning or straight runs of pipe, which lowers installation costs and the need for available space.



## 2-wire technology overview

Coriolis 2-wire flow meters offer an accurate and repeatable flow and density measurement that can maximize plant efficiency and reduce waste. Plant expansions where power is not centrally located can benefit from sharing power and signal over the same pair of wires. By replacing unreliable legacy 2-wire flow meters with Coriolis 2-wire, the existing wiring can be reused, lowering planning, engineering and installation costs.

## Ensure your meter is running correctly every time



Smart Meter Verification ensures that your meter is performing optimally at all times.



Wireless HART THUM adapter verifies that your meter is running correctly with Wireless HART.



Wide range and accuracy replaces legacy technology and enables turndown with ease.

## Retrofit existing 2-wire flow points to a reliable and accurate measurement



**Waste Oil for Boiler Fuel**  
Replace unreliable turbine meters to improve boiler operations.



**Hydrogen Gas**  
Replace DP flow meters that have rangeability issues at lower flow rates to account for hydrogen in the plant for better production.



**Tank Blanketing System**  
Replace legacy flow technology for improved ability to measure and control low flow for normal operation and high flows during upset conditions.



**Natural Gas Plant Distribution**  
Replace legacy DP flow meters to optimize production by properly allocating costs to each operating unit and improve natural gas usage balance in the plant.



**Inhibitor Injection for Reactors**  
Replace existing rotometers to improve batch throughput and optimize reaction time.



**Railcar and Tank Truck Loading**  
Replace PD and turbine meters in loading racks using the same pair of wires and benefit from less rail cars under filled, less exposure due to overfill, and bill for every drop.



For more information, visit [www.Emerson.com/MicroMotion4200](http://www.Emerson.com/MicroMotion4200)

# Micro Motion 4200 2-wire transmitter offers you peace of mind in measurement.



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BR-002209 / Printed in US / 03-19



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